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From a Billion to Zero: Three Key Ingredients to End Extreme Poverty

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On January 20, 1949, in the first-ever televised U.S. presidential inauguration, President Harry Truman stood on the steps of the Capitol and foretold of a better world, one of international order and justice and greater freedom, rid of the scourge of poverty:

> More than half the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their economic life is primitive and stagnant. Their poverty is a handicap and a threat both to them and to more prosperous areas. For the first time in history, humanity possesses the knowledge and the skill to relieve the suffering of these people.

More than sixty years later, the idea of a poverty-free world continues to capture the imagination of world leaders as well as lesser mortals. President Barack Obama, Truman's eleventh successor, had this to say in his 2013 State of the Union address:

> We also know that progress in the most impoverished parts of our world enriches us all—not only because it creates new markets, more stable order in certain regions of the world, but also because it's the right thing to do. In many places, people live on little more than a dollar a day. So the United States will join with our allies to eradicate such extreme poverty

> in the next two decades by connecting more people to the global economy; by empowering women; by giving our young and brightest minds new opportunities to serve and helping communities to feed, and power, and educate themselves; by saving the world's children from preventable deaths; and by realizing the promise of an AIDS-free generation, which is within our reach.

Each of these two proclamations is inspiring on its own. Yet taken together, they cannot help but appear naïve. The elusiveness of the goal over so many years suggests that however well-meant, its pursuit may ultimately be futile.[1] Is achieving an end to poverty really possible?

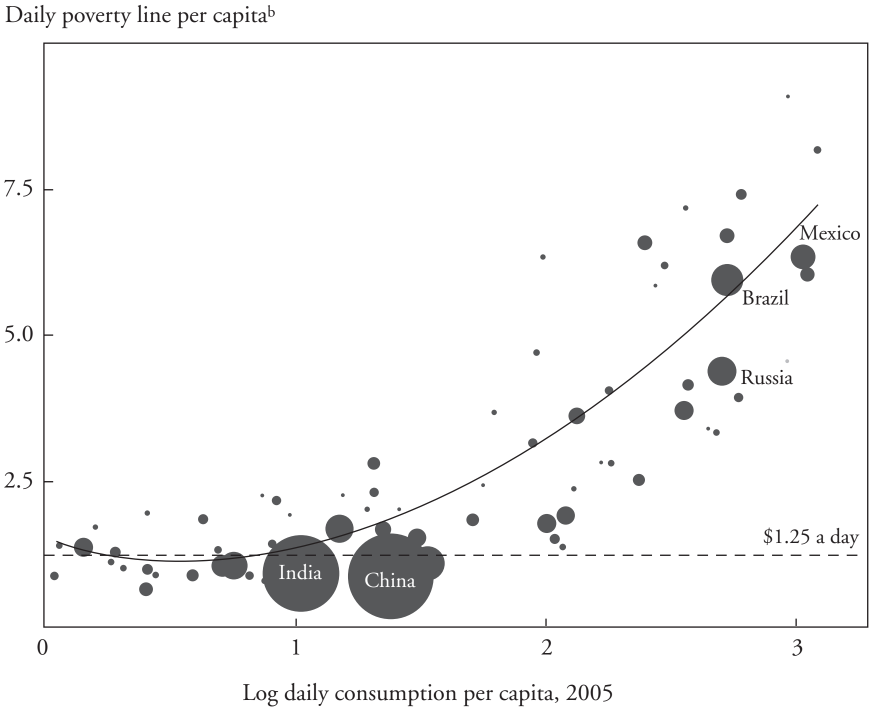
If we think about poverty as a relative concept, then almost certainly it is not. Living standards among people vary greatly within every country, so the have-nots, as much as the haves, are a feature of every society. Many countries set national poverty lines in explicitly relative terms to capture this kind of disadvantage. For instance, the OECD club of rich economies tracks the share of each country's population that lives on less than half the income earned by the person in the middle of distribution (the median). Even in the OECD's most egalitarian countries, such as Denmark and Iceland, poverty by this measure remains prevalent. Since living standards vary much more between countries than within countries, global poverty, measured in relative terms, would appear even harder to eliminate.

If instead we think of poverty as an absolute concept, then its persistence should be less certain and its eradication more readily imaginable. Many countries set national poverty lines in absolute terms that reflect the cost of meeting certain basic needs. As any one of these countries grows richer, one can reasonably expect poverty by this measure to continuously fall as the needs of an increasing share of its population are fulfilled. Yet with rising living standards come changing social norms regarding what constitutes basic needs. Absolute poverty lines are consequently revised upward, ensuring that the goal of poverty elimination remains out of reach. (To be clear, this is a good thing, since it implies that the minimum standards by which people are expected to live are higher.) In this way, poverty lines defined in absolute terms usually still engender a relative concept of poverty.

Figure 1-1 illustrates this phenomenon. The richer countries are, the higher they set their poverty line—and the poorer they are, the lower their poverty line. It is notable, however, that this relationship does not hold in countries where the average income falls below a very meager level—around \$3 to \$4 a day, or a little over \$1,000 a year. The poverty lines in those countries tend to gravitate

1. We credit Owen Barder for pointing out the historical precedents of these proclamations.

Figure 1-1. *Increase in Poverty Lines with Rise in Living Standards, Selected Countries*[a]



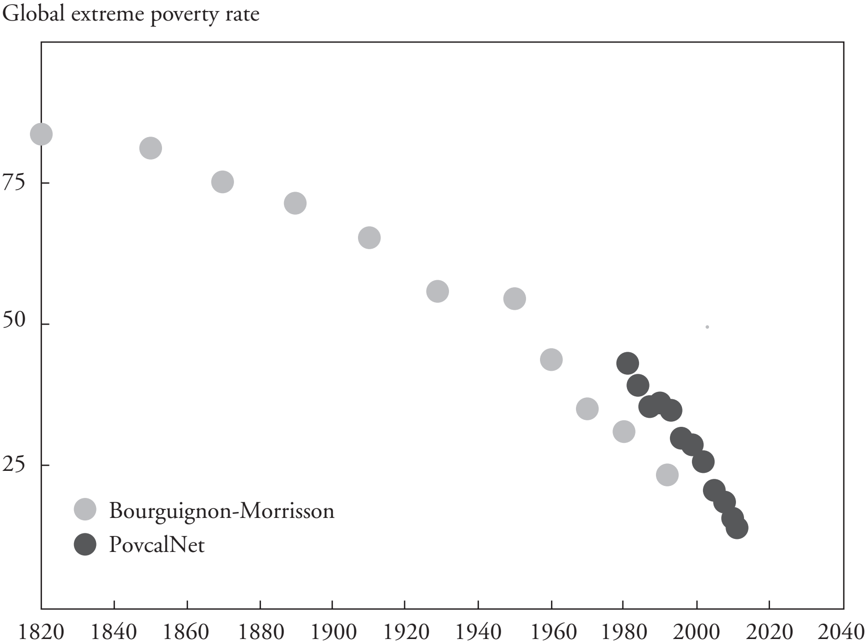
Source: Authors' calculations based on data from Ravallion, Chen, and Sangraula (2009).
a. Bubble size represents relative size of country populations.
b. In 2005 purchasing power parity dollars.

around a similar mark. This discontinuity provides the basis for defining a truly absolute concept of poverty: the $1.25 a day poverty line that is used to measure extreme poverty globally.

The extreme poverty line corresponds to the average value of national poverty lines in the world's poorest countries and so avoids concerns about relative welfare or subjective judgments about who might be considered poor in any given society. Poverty has many dimensions, including poor health, unsafe drinking water, and lack of education, personal safety, and human rights—along with other, intangible elements that deny people a life of dignity. But its most fundamental element concerns the ability of families to have enough food and resources to survive and to think and plan beyond their short-term survival.

Under this most parsimonious definition, the end of poverty becomes a more reasonable proposition. Figure 1-2 illustrates the declining share of the world

Figure 1-2. *Global Extreme Poverty Rate, 1820–2010*[a]



Source: Bourguignon and Morrisson (2002) and World Bank, "PovcalNet: An Online Analysis Tool for Global Poverty Monitoring" (http://iresearch.worldbank.org/PovcalNet/index.htm).

a. In contrast to official survey-based poverty measures, Bourguinon and Morrisson's poverty measures are based on national account estimates of income. To allow for comparison, Bourguinon and Morrisson anchor their results to the prevailing official global poverty estimate for 1992, which employed a poverty line of $1 a day (1985 purchasing power parity). The poverty line for PovcalNet poverty estimates is defined as $1.25 a day (2005 purchasing power parity).

population living on under $1.25 a day over time. This figure combines official estimates from the World Bank beginning in 1981 with admittedly shakier historical data constructed by François Bourguignon and Christian Morrisson that extend back to the Industrial Revolution in 1820. The pattern of observations shows that the rate of progress has remained relatively constant throughout the past 200 years. Some commentators point to a possible acceleration in the mid-twentieth century and to another at the start of the twenty-first century, but the overall picture is one of slow, gradual change: for two centuries the poverty rate has declined, on average, by just less than 0.5 percentage point a year. This trend seems humdrum in its monotony and its palpable lack of speed. Yet the story that it implies is all the more spectacular.

In the early 1800s, fewer than one in five people lived above the meager $1.25 threshold. In 2010, fewer than one in five people lived below it. This remarkable transition—from a world where destitution was virtually ubiquitous to one where only pockets of acute deprivation remain—suggests that the end of a long journey in extreme poverty eradication could be nearing. In 2011 (the most recent year for which we have global data), about 1 billion people lived in extreme poverty, or 14 percent of the world's population. Extending the trend from the past two centuries just a short distance into the future implies that the end of extreme poverty could soon be upon us. It is this inference that provides the empirical foundation for the global movement to eliminate extreme poverty by 2030. In 2015, this goal will likely be enshrined in an agreement between member states of the United Nations as one of the Sustainable Development Goals for 2030.

To be sure, it would be absurd to claim that an end to extreme poverty means an end to all deprivation and hardship in the world. Rather, it describes a world where the most egregious forms of destitution are consigned to history, where people no longer live so precariously that they fret about the source of their next meal or face a perpetual threat to their survival. Nor does the end of extreme poverty mark the end of global development—the end of the beginning may be a more accurate description. Nevertheless, it would be churlish to downplay its significance were this goal to be achieved: the end of extreme poverty would represent a key milestone in human progress.

We believe that the end of extreme poverty is achievable, but simply extrapolating from the historical trend of the global poverty rate is problematic. That's because the global poverty problem—its sources and solutions—is constantly evolving. In other words, the last mile in ending extreme poverty looks different from the miles already traveled. In this book we attempt to explain why—and how the last mile might successfully be completed.

We argue that ending extreme poverty requires peace, jobs, and resilience. These are issues that have been largely overlooked by so-called development experts and on which cutting-edge knowledge is blunt and for which best-practice solutions feel decidedly underwhelming. To make our case, we must shift our perspective beyond the global poverty rate to consider the trajectory of individual countries. In the remainder of this chapter, all references to "poverty" refer to extreme, monetary poverty, unless we state otherwise. We are acutely aware that the two are not the same, but we drop the prefixes for the sake of brevity.

Country Paths

The incremental, even-paced record of poverty reduction at the global level can give the impression that individual countries have followed a correspondingly uniform path—albeit from different starting points, with poorer countries beginning further back. That clearly has not been the case historically. The global poverty trajectory illustrated in figure 1-2 can be thought of as a middle road, with individual countries veering off wildly in different directions. Take just the past two decades: 1990 to 2010. In this period, the global poverty rate fell from 36.1 percent to 16.3 percent.[2] Success has been celebrated—the first Millennium Development Goal to halve global poverty was achieved seven years ahead of schedule. Yet of the developing countries for which there are data, two-thirds matched or exceeded the global record in percentage terms while one-third lagged behind. This twenty-year stretch contains cases of supercharged development (Indonesia, Vietnam), arrested development (Kenya, Madagascar), and development in reverse (Côte d'Ivoire, Bolivia), each reflected in the poverty rates reported from national surveys of household living standards. If the global poverty rate's historical regularity is cause for optimism that the end of extreme poverty is in sight, the record of individual countries offers a more ambivalent view.

On one hand, the star performers of the past twenty years serve as a reminder that sustained rapid poverty reduction is indeed possible, so that entire societies can be transformed in the space of a single generation. Given its sheer size, China is the most compelling example of this. What the world achieved in the space of 200 years—the reversal from fewer than one in five people living above $1.25 to fewer than one in five living below that threshold—China managed in little more than twenty years. The experience of China and other trailblazers provides a historical precedent for countries to sustain a rate of poverty reduction of 2.5 percentage points a year over decades—five times the speed of the global average over the past two centuries. If we assume conservatively that this is the maximum sustainable rate of poverty reduction, ending extreme poverty by 2030 would be a mathematical possibility virtually everywhere. The only exceptions would be a dozen or so small countries where poverty rates remained above 50 percent in 2010. Moreover, with a stronger concentration of global knowledge, skills, and resources devoted to helping those countries, it is not unreasonable to argue that they too could end extreme poverty.

On the other hand, the large number of countries that have made little or no inroads in reducing poverty over the past twenty years highlights the complexity of the task ahead. Take Côte d'Ivoire as an example. In the late 1980s, its extreme poverty rate stood at less than 10 percent and the country was widely admired for the capacity and professionalism of its government.[3] The

2. More commonly reported is the poverty rate for the developing world, which fell from 43.4 percent to 19.2 percent over the same period.

3. Van de Walle (2001).

subsequent two decades saw a macroeconomic crisis snowball into a deep and prolonged economic contraction, bringing with it rising poverty, falling school enrollment, and rising child malnutrition. Highly charged political competition inflamed ethnic tension and social unrest, culminating in a military coup in 1999 and two subsequent civil wars between the north and south.[4] According to the most recent survey of living standards, conducted in 2008 before the second civil war, the extreme poverty rate had risen to 35 percent. Côte d'Ivoire serves as a reminder that there is nothing inevitable about poverty reduction. The goal of ending extreme poverty in Côte d'Ivoire has morphed from a reasonable proposition only a generation ago to a herculean task today.

Côte d'Ivoire's reversal is tragic, but in terms of global poverty aggregates, it represents no more than a rounding error. It stands in contrast to China's takeoff, which has driven global poverty aggregates downward over the past two decades. The reason is obvious: China's population is sixty-eight times that of Côte d'Ivoire. More generally, global progress in fighting poverty has been judged by the average performance of developing countries. That allowed better performing countries—especially larger ones—to compensate for lagging ones. In the last mile, this rule no longer holds. It is not enough for most countries or a few big countries to perform well. There must be progress everywhere, without exception. The last mile requires not just good progress on average, but progress that leaves no one behind. That means progress is measured not by average performance but by the weakest performance, making the goal to end extreme poverty much more exacting than the earlier goal to halve global poverty—even though the numbers of people to be lifted out of poverty are similar.

Expressed another way, in the last mile every country must be on a short trajectory to end poverty. This is especially daunting for countries with high poverty rates today and a weak record of progress. Their trajectories to reach the zero mark by 2030 are especially steep and require the biggest turnarounds in performance. If any country deviates from its zero-poverty trajectory, the last mile will remain unfinished.

What holds true for countries is true for smaller units of analysis. The levels of and changes in national poverty rates inevitably conceal differences between subnational regions. Living standards in the coastal provinces of China rival those of advanced countries, but there are tens of millions of people living in extreme poverty in the hinterland. Côte d'Ivoire's conflict has left the country's northern population especially impoverished. The record of the last decade shows that rising prosperity within developing countries has, on average, been broadly shared but that this masks widening distributions in some economies

4. Cogneau, Houngbedji, and Mesplé-Somps (2014).

whose poor have been shortchanged.[5] Some fear that the Western phenomenon whereby a rising share of national income is captured by the richest 1 percent of the population could spread to the developing world. The last mile demands improving living standards not just across all countries but across all regions within countries and all households within those regions. No country, region, or household can be left behind.

In *The Great Escape*, Angus Deaton describes how the discovery and spread of technologies that underpin the development process necessarily result in imbalanced progress across people and places. Global poverty reduction has historically been characterized by that imbalance. In the last mile, the imbalance must be at least partially rectified, so that people everywhere see their living standards raised above the extreme poverty threshold.

Table 1-1 classifies the billion people living in extreme poverty according to two characteristics of the countries in which they live: the recent record of progress in reducing poverty and the poverty rate today.[6] This illustrates how fast countries are traveling and how far they have to go to reach the 2030 goal. The twenty-four countries in the top-left quadrant, which combine a high prevalence of poverty with a dismal record of progress over the past decade, give the goal its sternest test and must be a focus of any serious effort to understand what its achievement requires.[7] People in these countries face the greatest risk of being left behind.

However, an escape from extreme poverty for the nearly three-quarters of a billion people in the other three categories remains far from ensured. A particular concern is that countries may find it harder to maintain the same rate of poverty reduction as poverty levels approach zero. Since concentrations of people are typically thinner at the ends of the income spectrum, countrywide gains in income typically deliver less poverty reduction once poverty numbers reach low levels. Marginalized and remote communities can be hard to reach and can remain disconnected even if income growth at the country level is strong and sustained. Market and local governance failures or discrimination and exclusion

5. World Bank (2014b).

6. In countries with high poverty rates, more than 20 percent of the population lived on less than $1.25 a day in 2011; in countries with low poverty rates, less than 20 percent lived on $1.25. Slow- or no-progress countries saw poverty rates fall by less than 10 percent between 2002 and 2011; fast-progress countries saw poverty rates fall by at least 10 percent during that period. All country poverty estimates are based on official global poverty estimates produced by the World Bank, available on PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm). PovcalNet assumes that the few countries with no data have the same poverty rate as the regional average. The record of progress for these countries is based on an informed guess.

7. The twenty-four countries are Afghanistan, Benin, Burundi, Cameroon, Central African Republic, Comoros, Democratic Republic of Congo, Côte d'Ivoire, Eritrea, Guinea-Bissau, Kenya, Liberia, Madagascar, Mauritania, Nigeria, Sao Tome and Principe, Sierra Leone, Somalia, South Sudan, Swaziland, Timor-Leste, Togo, Zambia, and Zimbabwe.

Table 1-1. *Country Prospects for Ending Poverty*[a]

	High poverty rate	*Low poverty rate*
Slow/no progress	265 million people in 24 countries	7 million people in 6 countries
Fast progress	520 million people in 22 countries	208 million people in 38 countries

Source: Authors' calculations based on World Bank. "PovcalNet: An Online Analysis Tool for Global Poverty Monitoring" (http://iresearch.worldbank.org/PovcalNet/index.htm).

a. See footnote 6 in text for details.

can create pockets of poverty in lagging subnational regions or among particular population groups. These groups face a real risk of being left behind. Although table 1-1 shows that at present there are only a few small countries with low poverty rates that show slow or no progress, the risk remains that others that have enjoyed fast rates of poverty reduction in the past will find it difficult to sustain that pace over their last mile.

Framing the Problem

For countries with a poor record in fighting poverty, the most immediate problem would appear to be getting on a zero-poverty trajectory in the first place because the factors that undermined past poverty reduction efforts may persist and thwart future progress. The idea that poverty is "sticky" is usually described in terms of poverty traps, in which poverty is a self-reinforcing equilibrium state. Poverty traps are used to explain the persistence of poverty in many of the most popular books on global poverty from the last decade, including Jeffrey Sachs's *The End of Poverty* and Paul Collier's *The Bottom Billion*. Thankfully, the empirical evidence for such traps is limited.[8] Canonical models that purport to explain poverty's self-reinforcing properties—such as the low-savings/low-capital trap and the malnourishment/low-productivity trap—seem to occur rarely in the real world, if at all.

Where Sachs and Collier are unquestionably right, however, is in their conclusion that poverty will not disappear of its own accord, especially in countries where it has been consistently high. A change in circumstances (such as the end of conflict in Cambodia) or policies (such as China's household responsibility system) or a well-crafted intervention (such as Brazil's Bolsa Família cash transfer program) is required to trigger a turning point in the quest to end poverty. The results of such changes, which usually are followed by subsequent changes

8. Kraay and McKenzie (2014). For recent research that purports to find evidence that poverty traps do exist, see Dercon and Christiaensen (2011) and Marenya and Barrett (2009).

in circumstances, policies, and interventions, can be dramatic. It therefore is prudent to focus attention on what circumstances, policies, and interventions can bring about positive change. We reject as foolhardy and dangerous the cynical view that government actions or aid cannot accomplish anything at all.

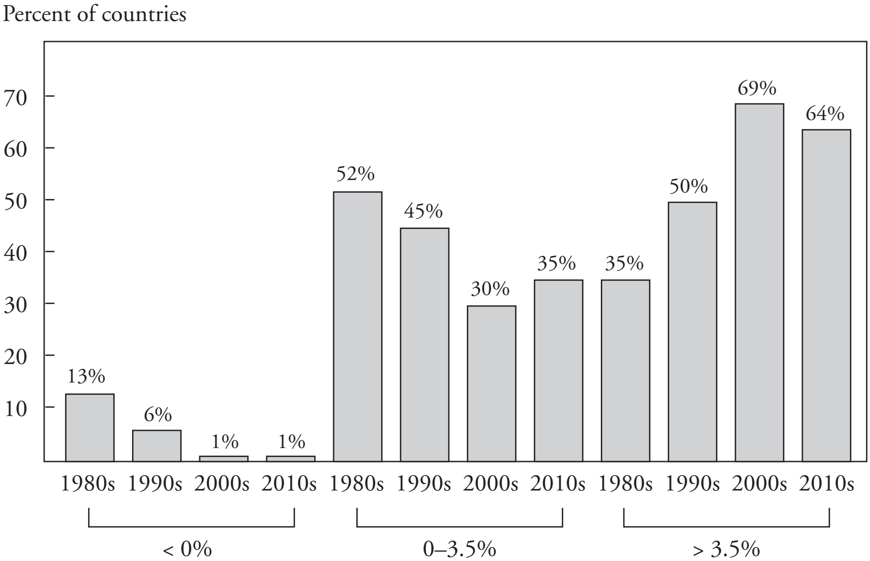
History is littered with examples of dramatic turnarounds in the fortunes of poor countries. Countries are readily written off as a lost cause, only to later prove that assessment spectacularly wrong. Max Weber, the pioneer of sociology, hypothesized in his 1915 book, *The Religion of China,* that the country's poverty was attributable to Confucian values, specifically the belief that individuals should adjust to the world's constraints. Weber saw that belief as incompatible with the tenets of capitalism—most prominently, entrepreneurship and innovation—which suggest that the world is something to be shaped. Gunnar Myrdal, a Nobel Laureate in economics, argued in his 1968 three-part volume, *The Asian Drama*, that India's economic takeoff was unlikely because of the country's traditional power structures, which could not enforce the discipline needed to implement development plans.

Bearing those cases in mind, we see no reason why extreme poverty cannot be eliminated by 2030 in any country. But conversely, there is no basis for assuming that poverty will end without positive changes in circumstances, policies, and interventions in each case.

Economic growth has, of course, been the main engine of mass poverty reduction in the past; the pursuit of poverty reduction has therefore been synonymous with the quest for growth. Historically, that search proved elusive in many developing countries. But since the 1990s, it has gradually become more successful. As illustrated in figure 1-3, more developing countries are recording sustained and rapid economic growth; consequently, fewer are seeing their economies shrink. Expressed another way, the last two decades have seen the fastest and most broad-based growth in developing countries, ever. That is why so many of the world's remaining poor live in countries with a strong recent record of poverty reduction, as shown in table 1-1.

This trend is a boon for the prospect of completing the last mile. Yet given the depth of poverty that exists in the world's poorest countries, it is not enough. These countries require full-fledged growth miracles that span decades; thankfully, those miracles are becoming more common. In 2007, the Growth Commission could identify only thirteen miracles—defined as average growth of 7 percent or more for at least twenty-five years—since 1950. They include many of the best-known and most studied examples of rapid development, such as Botswana, China, Japan, Korea, and Singapore. If the International Monetary Fund's growth projections until 2019 hold true, an astonishing sixteen more miracles could be added by that time, including in some of the world's poorest countries, such as Ethiopia, Laos, Liberia, Mozambique, and Rwanda.

Figure 1-3. *Dispersion in Average Rates of GDP per Capita Growth across Developing Countries*



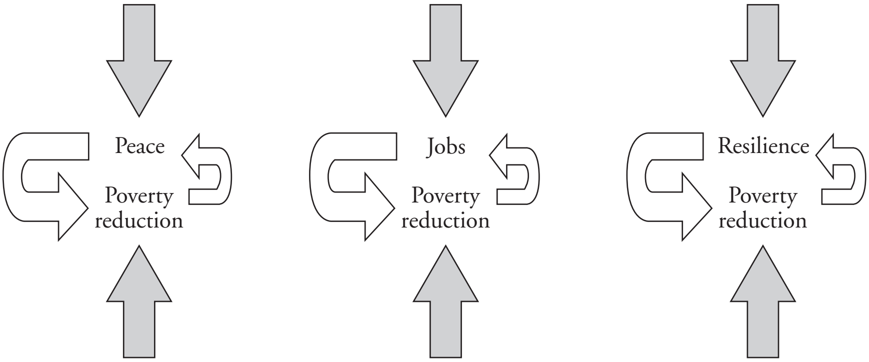
Source: Calculations based on data from International Monetary Fund (2014).

Despite that good news, we remain convinced that it will take more than growth strategies alone to finish the last mile. There will be places where growth fails to take off, where growth is only sporadic, and where the benefits of growth are unequally shared. That is why analyses of the future trajectory of global poverty view the completion of the last mile as a challenge even under the most optimistic growth scenarios.[9] Equatorial Guinea, which features among the sixteen potential new entries to the Growth Commission's miracle list, provides an arresting example of how in extreme circumstances, citizens can be almost entirely cut off from the benefits of growth. While lifting the constraints to growth must remain a focus of poverty reduction efforts, this book's focus is on three other ingredients that are needed to promote fast and sustained poverty reduction in many of today's poorest countries: peace, jobs, and resilience.

The absence of these ingredients is not a trap in the classical sense. Steady improvements in poverty reduction are possible without them. But neither is their absence simply a symptom of poverty: these ingredients are needed to

9. Bluhm, de Crombrugghe, and Szirmai (2015), Chandy, Ledlie, and Penciakova (2013), and World Bank (2014b).

Figure 1-4. *The Three Ingredients for Ending Poverty*



Source: Adapted from Blattman (2014).

accelerate and sustain the pace of poverty reduction; without them all, poverty is unlikely to end by 2030. We also believe that the standard toolkit of development economics has been of limited effectiveness in supplying these ingredients, which reflects the complexity of the problems that they engender and our limited understanding of them. The purpose of this book is both to expose and to begin to address these gaps in our knowledge.

Figure 1-4 illustrates the interdependence of these ingredients and poverty reduction. The circular arrows show that causation runs in both directions. Peace, jobs, and resilience promote poverty reduction, while poverty reduction promotes peace, jobs, and resilience. Crucially, the former effect outweighs the latter, as conveyed by the size of the circular arrows. In other words, reducing poverty improves the prospects for peace, jobs, and resilience only marginally, so antipoverty programs, illustrated by the upward facing arrows, will struggle to create a virtuous circle of poverty reduction by themselves. The last mile also requires investing in actions that directly seek to foster peace, jobs, and resilience, illustrated by the downward-facing arrows.

In the section that follows, we examine each of these ingredients and its relationship to poverty reduction. We treat the three ingredients separately, while recognizing that there are important links between them.

Peace

It is well established empirically that poor societies are less peaceful societies, given their greater propensity for armed conflict.[10] There are multiple mechanisms through which poverty can undermine the foundations of peace. Poverty

10. Fearon (2010).

can act as a direct trigger for conflict when resource scarcity creates competition between population groups, especially for basic needs such as food and land. Poverty can also create conditions in which peace is less likely, both by lowering the opportunity cost of violence for those with limited economic opportunities and by contributing to the weakness or absence of institutions that could mediate tensions.

Important though these mechanisms are, the impact of a society's stability on poverty is undoubtedly greater. Conflicts lead to the destruction of assets, both physical and human, that underpin productivity. They create uncertainty, which shortens people's time horizons and alters incentives in a way that stifles investment. These effects can endure long after a conflict ceases and peace is restored. Assets are slow to rebuild, and the high probability of a recurrence of conflict means that behavior is slow to revert to normal. This is borne out in surveys of entrepreneurs working in conflict-affected states. After controlling for a country's level of income, analysis shows that firms in these settings start smaller and grow more slowly, are less likely to upgrade products and services, and have less access to credit.[11]

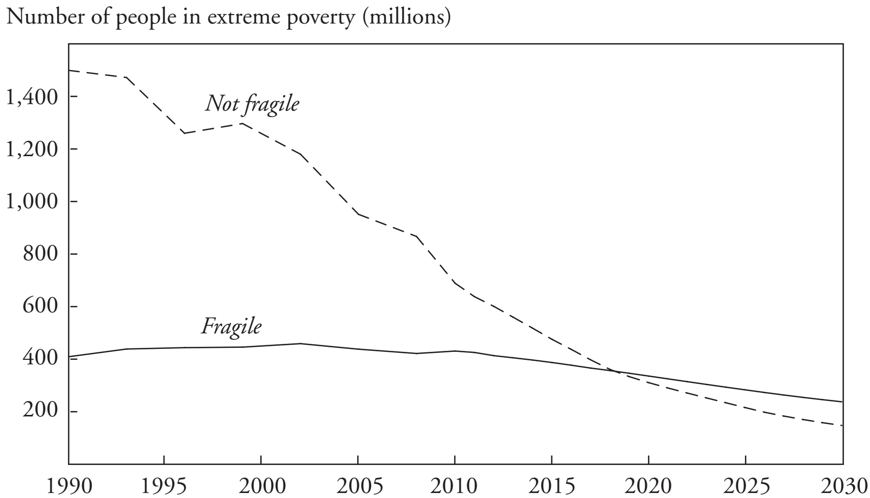
Macroeconomic evidence is equally persuasive. Conflict is one of a small number of factors that have consistently been found to explain decelerations in economic growth. It is important to note, however, that the cessation of conflict is not a significant determinant of immediate accelerations of growth.[12] Countries need more than a window of stability to lay the foundations for poverty reduction and development; they need a guarantee of long-term peace and security.

Recent years have seen growing recognition in the global development community of this interdependence, enshrined in the mantra "no peace without development, no development without peace." But it is one thing to agree that peace and development should be addressed simultaneously; it is another to agree on how to do that. Exacerbating the challenge is the recognition that interventions relied on to secure peace remain limited and their impact blunt. International peacekeeping scores very well on measures of cost effectiveness but there are well-documented instances of failure. Increasingly the onus is on brokering inclusive political settlements to definitively end conflicts, although questions abound as to precisely how they can be achieved. Institutions that provide security, justice, and jobs are seen as critical pillars for forging trust and stability, but they take generations to build.[13]

As learning on how to secure and sustain peace advances slowly, the nature of modern war evolves apace. Until recently, the most talked about trend in conflict had been the sharp reduction in the number of concurrent conflicts around

11. Speakman and Rysova (2015).
12. Easterly and others (1993); Jones and Olken (2008); Pritchett and others (2013).
13. World Bank (2011).

Figure 1-5. *Extreme Poverty in Fragile and Stable Countries, 1990–2030*[a]



Source: Chandy, Ledlie, and Penciakova (2013).
a. Poverty data up to 2010 are official estimates; data after 2010 are projections.

the world, most notably the drop in civil wars. As a result of the end of the cold war, the number of active civil wars dropped from fifty or so to around thirty. But just as analysts began to believe that there was a secular trend toward peace, the pattern disappeared. The dominant narrative today is that conflicts are, on average, becoming more complex and protracted; that they have a greater impact on civilians, whose protection and rights are difficult to uphold; and that they involve more opportunistic actors who have less interest in agreeing to a settlement and less desire to govern.

It should come as no surprise that conflict is a dominant feature among the countries that are losing the battle against extreme poverty. Of the twenty-four countries identified in table 1-1 as combining high poverty rates with dismal records of poverty reduction, thirteen had hosted UN or regional peacekeeping missions in the last decade. Over that period, only three of the twenty-four—Benin, Swaziland, and Zambia—did not at some point meet the OECD DAC classification criteria for state fragility. Global poverty is becoming more concentrated in these countries: in 1990, one in five poor people in the world lived in a fragile state; two in five do so today. Baseline projections from one study show that share rising above 50 percent in 2018 and reaching nearly two-thirds by 2030 (figure 1-5).[14]

14. Chandy, Ledlie, and Penciakova (2013).

Conflict should not be considered a national affliction alone. Several countries that have low poverty rates and impressive records of poverty reduction have withstood long-standing subnational conflicts, such as the Naxalite guerilla movement in India's Red Corridor, the Moro rebellion in the Philippines, and until recently, the twenty-year rebellion by Joseph Kony's Lord's Resistance Army in Northern Uganda. These conflicts have remained relatively contained and have not prevented development from taking off elsewhere in each country. But the affected regions lag behind economically, creating pockets of poverty that inhabitants cannot escape.

Jobs

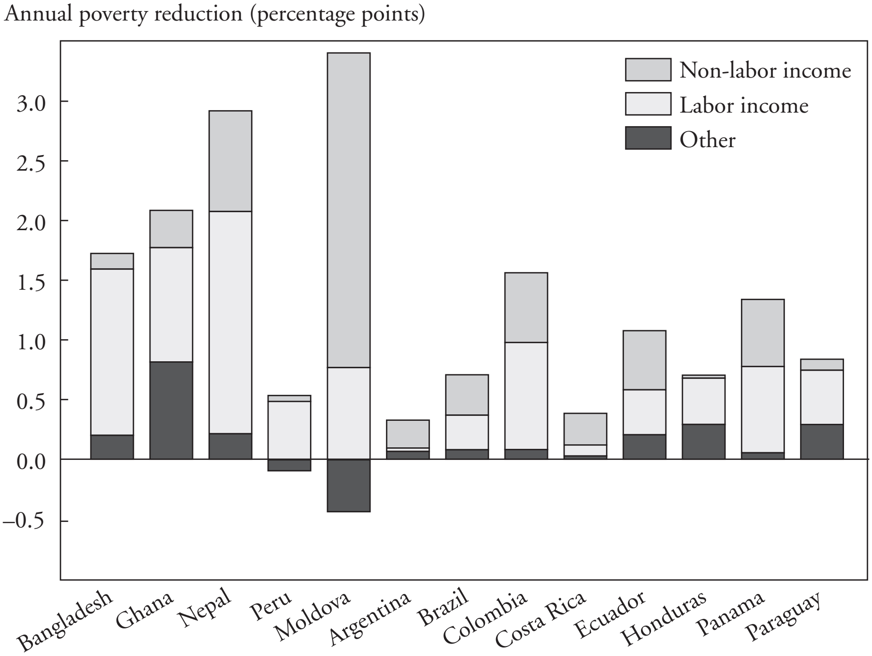
In a recent study, researchers at the World Bank analyzed over a dozen countries that recorded a large decrease in poverty over the past decade.[15] Their purpose was to identify the sources of additional household income that brought about an escape from poverty. In most cases, the dominant factor was an increase in the labor income of households, as illustrated in figure 1-6. A closer study of a subset of countries found that increased labor productivity, as opposed to increased hours worked, was the principal cause of income growth.[16] Understanding what factors enable people living in poverty to find productive work would therefore appear to offer some insight into how to complete the last mile.

Productive work for the poor typically means either wage-paying occupations; contractual agreements that incorporate workers into value chains; or raising yields on smallholder farms. Those who are unable to find such work are rarely unemployed in the sense that they are idle; instead, they are heavily underemployed, working in informal occupations in markets that are insufficiently integrated, or they are self-employed. In geographic areas where residents have little purchasing power and minimal connection to neighboring markets, people must scrape by on their own, often relying on natural resources for their livelihood, whether by farming without fertilizer or irrigation, foraging in forests, or fishing in rivers and coastal waters. As a result of population growth and the degradation of the environment, those resources are increasingly under stress and less capable of supporting decent livelihoods.

Poverty itself can be a hindrance to productive employment. The meager purchasing power of poor communities creates few opportunities for selling goods and services domestically, thereby reducing the demand for labor. In its severest form, poverty can result in the malnourishment of workers, which erodes their productivity. However, the dominant direction of causation runs

15. Azevedo and others (2013).
16. Inchauste and others (2012).

Figure 1-6. *Contributions to the Decline in $1.25-a-Day Poverty since 2000, Selected Countries*



Source: Authors' calculations based on Azevedo and others (2013).

in the opposite direction. A move toward productive employment can mean a dramatic increase in household income and an overnight escape from poverty.

The centrality of productive jobs to both poverty reduction and the broader development agenda is increasingly recognized, as evidenced by the 2013 *World Development Report* and the emphasis on jobs in early iterations of the 2030 Sustainable Development Goals. However, it has proven difficult to translate diagnoses into actionable policies. For instance, there remains a lively debate over which sector provides the strongest basis for exiting poverty and sustaining development. Wage-paying jobs—or at least those with connections to the rest of the economy—can be found in many sectors: agriculture, nonfarm rural employment, manufacturing, and services. The traditional policy toolkit for supporting job creation contains prescriptions that have proven difficult to implement effectively (for instance, industrial policy and public works programs) or that are of doubtful effectiveness in affecting marginalized groups (for instance, easing business regulations).

Among the constraints to the promotion of productive jobs is the absence of any significant change in the structure of most of the world's poor economies, especially those in sub-Saharan Africa, despite the fact that many have recorded impressive rates of growth over the past decade. Structural transformation is a catalyst both for raising labor productivity and for enabling poor workers to switch occupations. Another constraint is the chronic underinvestment in the networks that connect people to markets.[17] It is self-evident that businesses and the people that they hire are more productive when they have access to electricity, water, transportation, communication, and financial services. But the high fixed costs of constructing the infrastructure behind those networks preclude their diffusion, especially in small, often landlocked, economies that dominate the last mile. Incomplete networks can account for the vast within-country differences in income observed in many economies—in Latin America, for instance, between-municipality differences in labor income within countries have been found to be twice as large as between-country differences.[18]

Resilience

There is a tendency to think of movement across a poverty line as being a one-way street, but in reality, households can easily slip backward. Longitudinal surveys of living standards typically show a high degree of "churn" around the poverty line. For instance, one study of Malawi found that 35 percent of all households fell into poverty while 38 percent moved out of poverty over a ten-year period.[19] Similar risks of backsliding exist for regions and countries: as discussed earlier, Côte d'Ivoire was held up as a model African economy in the 1980s before entering a protracted political and economic crisis.

Resilience—the mitigation of shocks and their effects—is critical to preserving progress against poverty and to completing the last mile. Shocks come in various forms. At the household level, they include illness, loss of a job, or stolen assets. At the community or regional level, poor harvests or natural disasters can have devastating consequences. At the country level, commodity price swings and political turmoil are major sources of instability. Cross-border shocks such as outbreaks of infectious diseases present a unique set of challenges. Resilience to these shocks entails a combination of risk reduction, risk sharing, better preparation, and effective response and recovery.

Poverty itself is an important driver of vulnerability and the absence of resilience. Poor people live in places that lack effective institutions to provide resilience. They have no access to formal coping mechanisms, such as credit

17. Hausmann (2014).
18. Acemoglu and Dell (2010).
19. Narayan, Pritchett, and Kapoor (2009).

and insurance markets: only 23 percent of adults living on less than $2 a day report having an account at a formal financial institution.[20] Informal insurance mechanisms such as group or kin-based arrangements can quickly break down when entire communities are affected.[21] Weak or bad governance in many poor countries means that public goods that can act as a critical defense against shocks for the poor—infrastructure, regulation, access to information—are too often underprovided.

Conversely, vulnerability to shocks is a powerful cause of poverty. Shocks can mean not just the drying up of an income stream for a household but the destruction of wealth, the buildup of debt, and the erosion of future earning potential. Families may sell productive assets such as livestock in a desperate effort to survive a drop in income and maintain a subsistence rate of consumption. Even temporary shocks can therefore have permanent negative effects on living standards that can cross generations when nutrition and children's schooling are affected. For instance, ten years after droughts hit communities in Ethiopia and Tanzania in the 1990s, the consumption levels of poor households remained 17 to 40 percent below pre-disaster levels.[22]

While poor people are the least resilient, risks remain considerable at income levels that far exceed the poverty line. One study of Chile, Mexico, and Peru found that while the probability of backsliding into poverty during a five-year period decreased as incomes rose further from the poverty line, it remained significant (above 10 percent) even when incomes stood at twice the poverty line (figure 1-7).[23] That demonstrates the importance of boosting resilience if poverty is to be eradicated. There is growing recognition of the importance of this issue in the global development community. Cost-benefit analyses have shown many risk management interventions to be highly effective, although those interventions remain underused.[24] One notable success has been the spread of social safety net programs across the developing world. However, their coverage remains thinnest in the poorest countries. In low-income countries, less than 10 percent of the population is covered.[25] When it comes to mitigating the effects of shocks, speed has proven a particular challenge. A study of East Africa found that the cost of a drought to households living in extreme poverty increases from $0 to $50 per household if the response is delayed by four months after harvest but rises sharply to $1,300 if support is delayed by six

20. Global Findex (2014).

21. Morduch (1999).

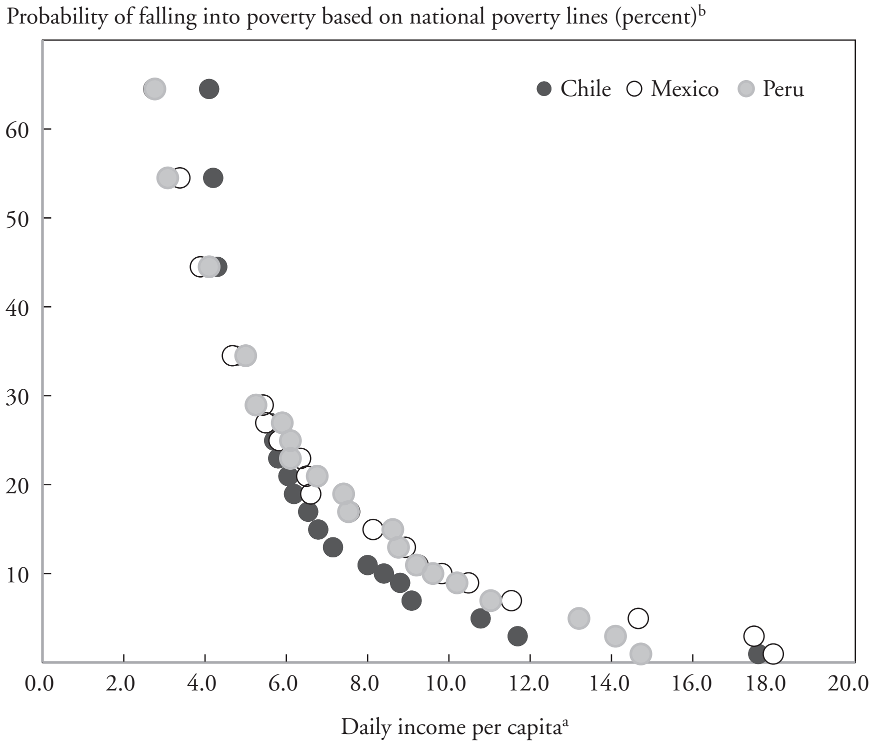
22. Carter and others (2005); Beegle, Dehejia, and Gatti (2006).

23. López-Calva and Ortiz-Juárez (2014). National poverty lines in the three countries range between $4 and $5 a day in 2005 purchasing power parity. For evidence of similar dynamics in Nigeria using a poverty line close to the global $1.25 threshold, see Corral, Molini and Oseni (2015).

24. World Bank (2014a).

25. Gentilini and others (2014).

Figure 1-7. *Vulnerability to Falling into Poverty*



Source: López-Calva and Ortiz-Juárez (2015).
a. In 2005 purchasing power parity (PPP) dollars.
b. National poverty rates in the three countries range between \$4 and \$5 a day in 2005 PPP.

months or more due to the impact on children and distress sales of livestock and other property.[26]

Moreover, the changing nature of risks means that the resilience agenda is constantly evolving. For instance, over the past two decades, maternal health risks and the frequency of economic recessions have subsided in all regions. Meanwhile, rates of reported crime have risen in Latin America and sub-Saharan Africa. Arguably the most alarming trend in risks is the increased reports of natural disasters. There are currently about 800 natural disasters each year, affecting 200 million people, or approximately double the number reported twenty years ago.[27] One-fifth of the affected people have to leave their homes, becoming internally displaced.[28] The Intergovernmental Panel on Climate Change

26. Clarke and Vargas Hill (2013).
27. Relief Web (2014).
28. Ferris (2010).

predicts that the frequency of natural disasters is likely to increase further as a consequence of global warming.

Crafting Solutions

The previous discussion argues that peace, jobs, and resilience are critical ingredients in completing the last mile, that completion demands actions that extend beyond traditional poverty reduction efforts, and that existing approaches to supply these ingredients have not had enough impact and reflect insufficient understanding of the issues entailed.

To explore these issues further, we brought together a group of leading experts, including both practitioners and academics, and asked them to think about what can be done to secure peace, create jobs, and strengthen resilience for the world's poorest people. Their answers are contained in the eleven chapters that follow. These chapters do not offer comprehensive solutions nor are they wholly prescriptive. In some cases, their aim is simply to better understand the problem. In that respect, they help to define an agenda for the current generation of development analysts and practitioners. In other cases, they offer bold proposals that deserve serious consideration and scrutiny. Common to all chapters is the recognition that past experiences, both good and bad, are replete with lessons. Poor countries have a great deal to learn from each other—as do the panoply of organizations that make up the global development community. As a collection, these chapters represent an important step in closing the knowledge gap that defines the last mile.

Securing Peace

Bruce Jones begins in chapter 2 by assessing the global community's capability of sustaining peace. Jones argues that with respect to the short-term goal of intervening in and ending conflicts, the international system deserves more credit than it normally receives. He notes the significant role that it has played in reducing the number of conflicts since the end of the cold war, citing the actions of the UN Security Council, regional and national actors, and the plethora of mediators, peacekeepers, and observers. While the success rate of its efforts appears meager in absolute terms—mediation efforts fail roughly three-quarters of the time while peacekeeping operations fail roughly half the time—measured against the counterfactual of ongoing conflict, their value comes into focus.

Jones's chapter is devoted for the most part to the broader goal of establishing long-term peace in states that have experienced conflict. He begins by highlighting the importance of forging strong political settlements or pacts between elites—a process that he describes as an essential interim step between postconflict stabilization and longer-term institution building. Such settlements provide a medium-term guarantee of stability and a means for extending the time horizon of citizens and elites so that longer-term planning can begin. Jones argues that we remain very much at the bottom of the learning curve in terms of understanding what makes for an enduring political settlement. One salient factor on which there is reasonable evidence is the degree to which settlements are inclusive and so bring together key warring factions. Open competition and full inclusion can foster factionalism and have potentially destabilizing effects, so a balanced, "inclusive-enough" approach to which elites subscribe may be preferred.

Jones then turns to the longer-term challenge of building credible political and security institutions in developing countries to serve as stress buffers when countries inevitably incur shocks and societal or political pressures. These institutions offer the best chance of ending cycles of conflict. This is where the international system comes in for Jones's most withering criticism. The international system's weakness here owes less to the paucity of technical expertise and more to the absence of a dedicated organization or agency to impart that expertise. No part of the existing international architecture is devoted to helping states engage in political development, foster credible security institutions, or build the instruments of the rule of law. The solution, Jones insists, is to stop castigating the security, humanitarian, and development communities for failing to build bridges to each other and instead to build a coherent architecture to fill the gap between those communities.

One of the most striking new elements of national development strategies in many countries over the past fifteen years has been the inclusion of state building as an overarching goal, defined by the OECD as "an effort to strengthen the capacity and legitimacy of state institutions to consolidate effective, legitimate, and resilient states." This objective has been enthusiastically promoted within parts of the development community as an essential antidote to fragility and conflict. In chapter 3, Ryutaro Murotani and Yoichi Mine grapple with the practical challenges that donors have faced in designing and implementing state building programs.

The authors begin by identifying an inherent tension in the theory of state building: that the ability of the *central* state to earn legitimacy depends on its demonstrated capacity to deliver services *locally*. This mechanism for fostering trust in the state seems plausible so long as citizens view the different levels of the state as being one and the same. But if central and local institutions are viewed as distinct—which seems especially likely in countries where the central state is weak, information flows are limited, and society is fragmented—then the mechanism would appear to break down.

Murotani and Mine show how donors have struggled to resolve this tension and in so doing may have exacerbated it instead. Donor efforts to support state building have tended to be concentrated on the central state and have consequently been criticized for lack of visibility outside national capitals and for failing to alter the most obvious aspects of government performance: access to and quality of services delivered to beneficiaries. Furthermore, a focus on strengthening the central state has drawn skilled personnel away from local-level institutions, especially in countries where the size of the overall skill pool is limited.

The authors argue persuasively that donor engagement in fragile states should be geared toward bridging the gap between state institution building and improvement of local livelihoods. They suggest three ways in which that can be achieved: strengthening the capacity of subnational institutions to deliver services; raising the accountability of local institutions by promoting participation and establishing feedback mechanisms; and promoting inclusive partnerships between national and local levels of government by ensuring that subnational units are treated equally.

The authors demonstrate this approach through three case studies. Afghanistan's community-driven development initiative, the National Solidarity Program, demonstrates that improved trust and institutional development at the village level do not automatically "trickle up" to the provincial and federal level. In Northern Uganda, the expulsion of the Lord's Resistance Army provided an opportunity to address long-standing horizontal inequalities through capacity building of subnational institutions and participation of returning displaced people. Finally, finding an appropriate mechanism of cooperation between the Bangsamoro autonomous government and the national government provided the basis for successful completion of peace negotiations in the Mindanao region of the Philippines.

In chapter 4 Alastair McKechnie and Marcus Manuel examine the role of external assistance in reducing poverty in fragile and conflict-affected environments. In these countries, aid remains a dominant source of funds; therefore, how it is used is of critical importance. Foreign direct investment is either altogether absent or limited to the extractive sector; domestic revenues are growing but more slowly than elsewhere and from a modest base; and remittances feature prominently in only a few countries. Therefore, while in other settings donors are looking for new ways to be useful, in fragile states the debate is over how to address a multitude of critical needs with limited resources.

Recent experience demonstrates just how hard it is to balance those needs. McKechnie and Manuel juxtapose the postconflict experience of Afghanistan and Sierra Leone to show how easily progress on different fronts can become imbalanced. In Afghanistan, large amounts of quickly disbursed aid helped drive significant development gains, but the sustainability of those gains stands in jeopardy given the failure to improve the security and political environment. In Sierra Leone, personal security and a successful political transition represent hard-won goals, but inadequate donor funding has slowed the pace of economic rehabilitation and hence increased the threats to longer-term peace.

The establishment of the g7+ in 2008—a coalition of self-identifying fragile states—has sought to resolve these issues. Its purpose has been to encourage fragile states to share their experiences and to advocate reforms in the way that the international community engages in conflict-affected environments. A "New Deal," endorsed by g7+ members and most donors, was agreed on in 2011 and is now being rolled out in eight pilot countries. McKechnie and Manuel strongly welcome the g7+ leadership and the core elements of the New Deal. But they're withering in their criticism of donors' behavior since the agreement was signed, and with a few notable exceptions they see little sign of broad substantial change.

The authors identify three areas where reforms to external assistance are most urgently needed and could transform its impact. The first is a top-to-bottom refocusing of resource allocation. They argue for a shift in resources within donors from security to aid and development spending; in aid allocations across countries from richer, more stable countries to fragile states; and in aid allocations within those countries to peacekeeping and state-building objectives, specifically law enforcement, the judicial system, job creation, and infrastructure. Second, they advocate a shift to aid delivery that embodies principles of effectiveness—using country systems, better risk management, faster delivery, and fostering institutions—that today receive only lip service. Finally, the authors propose a New Deal for the private sector in fragile states that envisions a country-driven approach to private sector development, one in which stakeholders agree to reforms through a mutual accountability agreement.

From a purely arithmetic point of view, ending extreme poverty in many of the world's fragile and conflict-affected states within a generation appears a daunting challenge. As already demonstrated, many of these countries have very high poverty rates, a persistently poor track record in reducing poverty, or both. But, as Gary Milante argues in chapter 5, the goal is more complicated than mere numbers convey. He characterizes development in countries affected by violence and war as a "wicked problem," meaning that there are no definitively right or wrong solutions in those settings. The application of development blueprints and paradigmatic models is likely to prove unworkable and possibly even harmful. A rejection of such models does not imply a rejection of all historical experience, however. On the contrary, Milante suggests that as fragile states seek to identify their own paths toward ending poverty, the trajectories of other countries over the past generation—whose record against poverty has been mapped through hundreds of household surveys—provide a valuable source of information from which to draw lessons. The experiences of other countries are best understood as heuristics. They can serve as touchstones when there is an opportunity to benefit from similar programs, waypoints when a country finds itself on a similar positive path, and warning signs when a country is on a similar but undesirable path.

To put this idea into practice, Milante develops a new methodology, which he calls the "thousand paths" approach. Starting with a particular country of interest, he runs a simulation exploring a range of possible futures, each consisting of a sequence of relevant historical spells of poverty reduction drawn from other countries that have been hypothetically threaded together into a chain. The relevance of each spell to the country of interest is determined by the degree to which the two share common features, captured in a collection of variables. The simulations are re-run a thousand times, during which the weights applied to the variables are randomized to generate new threads composed of different historical spells. The spells that are repeatedly drawn from the simulations are then explored to produce lessons for the country of interest.

The results of this approach are original and compelling. They reveal what the Democratic Republic of Congo can learn from Cambodia's agricultural productivity gains in the 2000s, what Yemen might garner from Ecuador's use of oil revenues to finance social assistance programs in the 2000s, and how Nepal might avoid Tanzania's mistakes in land reforms in the 1990s and 2000s. Milante recommends deeper dives into these and other cases studies and proposes knowledge exchanges involving policymakers and advisers who participated in those experiences as a way of using these results to assist leaders of fragile states tasked with navigating an uncertain future.

Creating Jobs

Approximately 80 percent of the world's extremely poor people live in rural areas and 60 percent work in agriculture. Those striking statistics suggest a critical role for agricultural development in the last mile. In chapter 6, John McArthur looks at how this role can be played most effectively. The volume of donor assistance to agriculture has doubled since 2006, although it remains at only half of its peak in the mid-1980s. In addition, new multilateral initiatives and national investor roundtables are seeking to mobilize and direct private capital in ways that include poor people in agricultural value chains.

McArthur begins by parsing a pivotal debate in development economics: is poverty elimination best achieved by boosting the incomes of farmers where they already work or by creating higher-wage, off-farm jobs for them? He notes the general equilibrium effects triggered by agricultural development, identifying three routes through which agricultural productivity can support poverty reduction: by directly raising the income of farmers; by freeing up labor for nonfarm jobs; and by raising the competitiveness of an economy by reducing food prices. These potential effects help to explain the significant role attributed to agricultural development in the empirical literature. Left unresolved is the question of the sufficiency of agricultural development for aggregate growth and poverty reduction and its implications for public investment decisions, in which trade-offs are paramount. This issue becomes more complicated once it is acknowledged that the relevance of agricultural development to poverty reduction differs according to an economy's characteristics and the depth of the poverty being addressed.

Indeed, the hazards of drawing generalizations from one country to another extend beyond the question of agriculture's role in poverty reduction to the potential for and constraints to agricultural development. McArthur demonstrates the extent to which the agricultural sector varies across economies with respect to their location in global markets, their current mix of crops, and their agricultural potential. Each crop has its own physical yield profile, market price, and responsiveness to inputs. Farm success depends on access to high-yielding seeds, water, nutrients, and reliable markets for buying inputs and selling outputs. That adds up to a vast number of moving parts that need to be controlled for in order to conduct a rigorous comparative analysis.

Alongside this tremendous country-specific variation some common challenges remain. For instance, among the world's poorest economies, employment is especially concentrated in agriculture, yields are persistently low and linked with negligible use of inputs, and low input use is partly explained by the cost of inputs and the difficulty of accessing them. McArthur identifies multiple priorities that can serve to boost agricultural productivity in these settings, including investment in transport infrastructure, subsidized inputs for the poor, warehousing, pooled sales, climate insurance, pooled credit facilities, and research on disease-resistant seed varieties. So despite the need for case specificity, the components of a broad agenda to reduce poverty through agricultural development are already largely known—the challenge is to tailor them to each economy's circumstances and bring them to scale.

One of the clearest takeaways from analyses of the future trajectory of global poverty is the pivotal role that Africa will play. It is not just that poverty in Africa is deeper and more prevalent than in other regions. Sufficient economic growth should, in theory, be able to overcome that, and many African economies have demonstrated a capacity for sustained growth over the past decade or more. An additional challenge is the failure of economic growth to convert into significant poverty reduction on the continent. In chapter 7, John Page argues that Africa's structural pattern of growth is partly responsible for that failure.

As economies develop, the allocation of capital and labor to different sectors and the contribution of those sectors to overall output typically shift. That transformation represents an important source of growth in itself if it entails a shift from lower- to higher-productivity activities. Africa's economies have the potential for significant structural change as the productivity of different sectors varies widely and most of the continent's labor force is engaged in its least productive sector: agriculture. As noted earlier, however, such a transformation has failed to come about.

One consequence of that failure is the meager scale of Africa's manufacturing sector, whose share of the continent's output has remained unchanged for forty years. This stands in stark contrast to the output of the tiger economies of Asia, whose textile and electronics factories are enduring symbols of their dynamic growth. Page notes a small shift in Africa's economic structure since 2000, but rather than marking a delayed start to the continent's industrialization, it signals a movement of labor into trade and distribution services. These sectors have only marginally higher productivity than agriculture, and their productivity has fallen with the entry of new workers. That leads Page to conclude that the structural changes observed represent a symptom of poverty rather than a source of poverty reduction. He presents both cross-country evidence and country-level simulations to argue that Africa's performance in reducing poverty would have been better had the region started its structural transformation earlier and had it experienced more robust growth of manufacturing and other sectors that yield high value added per worker.

Page offers a two-pronged strategy for raising the poverty dividend from Africa's growth. The first part builds on McArthur's recommendations in chapter 6 to boost the productivity of the continent's least productive and most labor-intensive sector, agriculture. The second part is to develop an industrial strategy that can deliver the continent's much-needed structural transformation. It is important to note that this strategy can be used to support not just manufacturing but agro-industry and tradable services. Page describes the latter as "industries without smokestacks," given their job-creating potential and their responsiveness to the same interventions: infrastructure and skills development, improved trade logistics and border procedures, and development of special economic zones.

Governance is fundamentally about choices and trade-offs, and navigating them successfully is a challenge both for the governments of developing countries and for the donor governments that assist them. In fragile states, the challenge is especially acute. The problems that underlie fragility—poverty, weak governance, ethnic fragmentation—are intertwined, and the combination of fast-unfolding events and goals with markedly different time frames means that the best choices and the valuation of trade-offs need to be regularly reassessed. In chapter 8, Shane Evans and Michael Carnahan explore these issues in the context of a renewed focus on the imperative of job creation and private sector–led development in fragile states. They focus on small island states where small domestic markets, long distances to global markets, and vulnerability to external shocks make it especially difficult to build a thriving and dynamic private sector.

The authors identify three foundations of economic growth in fragile states. The first is peace and stability. There is a complicated feedback loop here since certain patterns of economic growth can exacerbate the drivers of conflict, such as competition for scarce resources. The second foundation is investments in productivity and participation. The latter may include the reintegration of combatants and displaced people into the labor market so that growth does not entrench the marginalization of excluded groups. The third foundation is policy and institutional development to support the two other foundations, which may entail unwinding short-termist, unsustainable, and distortionary policies that served governments during a prior conflict.

Evans and Carnahan explain the difficulty that developing country governments and donor agencies face in allocating their efforts and resources across these three domains. An attempt to sequence rather than distribute efforts emerges as a sensible strategy, even though any sequencing can easily be superseded by changing circumstances. The authors propose an initial emphasis on peace and stability followed by a gradual shift toward productivity and participation over the medium to long term, with policy and institutional strengthening embedded throughout. The corollary of this sequence for developing country governments entails initially channeling a disproportionately large share of government expenditures through the recurrent budget and then transitioning toward devoting a greater share to the development (or capital) budget. Through an analysis of Australian aid and partner governments' public expenditures, the authors find some evidence of this stylized pattern in the postconflict transitions under way in the Solomon Islands and Timor-Leste respectively. Both countries find themselves in the difficult transition between focusing on peace and stability and increasing productivity and participation.

"Inclusive growth" may be a relatively new term, but it has deep roots in the literature on growth with equity that arose from East Asia's development experience. In chapter 9, Akio Hosono draws lessons from the Asian experience for sub-Saharan Africa. He begins by highlighting the importance of policies and a physical environment that support efficient growth. Much has been written about the former, much less about the latter. Hosono emphasizes basic infrastructure for energy and transport, sometimes in economic development corridors, along with "inclusive finance" to provide credit to agricultural producers and to small and medium-size firms.

He goes on to identify three strategies for inclusive growth. In each case, he draws on case studies from Africa to show how East and South Asian strategies can be adapted and implemented in different settings. The first strategy, of increasing staple crop productivity, points to the importance of staples produced and consumed by the poor. In South Asia, the initial wave of the Green Revolution increased wheat yields in the northwest and delta regions of India, but it was the second wave, which focused on rice, that had a transformative impact on poverty. In the case of Tanzania, rice yields of six tons per hectare (thrice the national average) have already been reached with improved farming techniques and irrigation.

The second strategy concerns diversifying agriculture to include higher-value crops and strengthening the agro-industry value chain. Thailand made this an explicit strategy in its economic development plans in the mid-1980s. A similar approach has since been taken by Kenya that has served not only to create productive jobs but to stem the trend of deforestation through use of small-holder horticulture and new farm forestry models. The third strategy—support for light manufacturing—is inextricably associated with East Asia's rise. Hosono adds a twist by emphasizing the links that light manufacturing can have with the development of agriculture. This approach is currently being attempted by Ethiopia.

Building Resilience

What can the history of social policy reform in rich countries teach us about the role of social protection in completing the last mile? This question is explored by Raj Desai in chapter 10, which focuses on the political feasibility of designing and sustaining poverty-reducing welfare programs. He submits that social protection is likely to play a significant part in eliminating global poverty. The end of extreme poverty in today's rich countries, where poverty rates fell from single digits to zero, coincided with the creation of large welfare states in the post–World War II era. Welfare programs had a transformative impact, lifting the living standards of the destitute while establishing a social floor that protected all members of society. Many of today's middle-income countries appear to be at a similar stage of development, in which social protection is needed to tackle remaining pockets of extreme poverty.

One of the salient features in the creation of welfare states in today's rich countries was the support of the middle class as well as the organized working class, which together represented an unassailable political alliance. The durability of welfare programs and institutions is attributed to the buy-in of the middle class, the principal source of public financing through tax revenues. Achieving that buy-in had implications for program design: at their inception, welfare programs in today's rich countries had broad or universal coverage so that the middle class itself was not excluded from their benefits.

Many of today's developing countries are in the midst of establishing their own social protection programs. But the pattern that they have tended to follow is different from that in rich countries, a difference that can be explained largely by context. In today's developing countries, labor tends to be less organized and have less bargaining strength; much of the labor force remains in the informal sector and thus is excluded from formal contributory welfare schemes; and public policy preferences have shifted toward targeting particular populations to achieve efficiency and value for money.

The upshot is that the reverse dynamic appears to be playing out: instead of middle class buy-in resulting in broader and more comprehensive social protection programs in developed countries, targeted and fragmented programs are inhibiting middle-class support for social protection in developing countries. Through a simple benchmark exercise, Desai shows that Asian states are lagging well behind today's rich countries in their development of social protection: India today is already richer than Germany was when it introduced social insurance for all workers in the late 1880s; Indonesia is richer than the United States was in 1935, when the Social Security Act was passed; and China is richer than Britain was in 1948, when the National Health service was introduced. Desai infers that the last mile in poverty reduction is more likely to be achieved and sustained through universal social policies that garner broader political support by including the nonpoor as beneficiaries. That is especially true in fragile states, where targeting may exacerbate social tensions, whereas universality can support the goals of nation building and social cohesion. This approach goes against the targeting paradigm championed by the donor community.

Across the multitude of development indexes that rank countries, it is common to see the usual suspects bunched at one end or the other. That holds true for indexes of state weakness and of vulnerability to negative effects of climate change. In chapter 11, Stephen Smith explores the interactions between these two types of fragility, which are especially important given the challenge that both pose for poverty reduction and the increasing environmental fragility anticipated over the next fifteen years as a result of climate change and other forms of environmental degradation. The chapter gives thirty-five examples from across the developing world that bring home the immediacy of these issues and discusses ongoing efforts to manage them effectively.

The causality running from climate change to conflict predominantly concerns the externalities of climate adaptation strategies. Large-scale migration and accelerated exploitation of natural resources by individuals and communities act as stressors that lead to heightened risks of conflict. This dynamic is exemplified by experiences in Bangladesh, Kenya, Nigeria, Sudan, and Uganda. Poorly conceived adaptation strategies pursued by governments, such as interest group–dominated management of environmental resources, can likewise lead to violence and war.

Moreover, violent conflict can lead to accelerated environmental degradation. This time the key channel is the breakdown or distortion of governance. Smith explores examples from Afghanistan, Nepal, the Democratic Republic of Congo, and Sierra Leone.

Smith examines policy options for facilitating peaceful adaptation to environmental change, halting the more egregious instances of domestic environmental damage, and securing the livelihoods of populations affected by environmental degradation. He describes the tension between supporting autonomous adaptation and planned adaptation, especially in fragile and poorly governed environments. For the donor community, that balancing act is reflected in efforts to strengthen state capacity while protecting citizens and strengthening citizens' resilience. Smith persuasively argues that just as the two fragilities can create a vicious cycle, there are likely to be significant mutual benefits to governments and donors in taking an integrated approach to addressing the two issues.

What role can social capital play in building the resilience of communities to natural disasters? That is the question investigated by Go Shimada in chapter 12. Interest in the role of social capital has arisen partly from necessity: with natural disasters becoming more frequent, poor countries being most at risk, and the poorest members of those countries facing the greatest vulnerability, autonomous solutions that center on the actions of poor people themselves arguably offer the best chance of success. Shimada views social capital as the most viable—and perhaps only—social safety net available to the extremely poor during a crisis. That is partly a function of the typically weak states within which extremely poor populations live, where formal safety nets are undeveloped. But more important is the resilience of social capital itself. In the immediate aftermath of a natural disaster, the functioning of institutions and markets can quickly break down. For that reason, social capital is especially relied on during emergencies, when social networks and norms of reciprocity and trust become core components of survival strategies.

Shimada makes a helpful distinction between what he describes as the recovery and reconstruction phases that follow a disaster, each of which is key to demonstrating resilience. The recovery phase concerns the restoration of the basic functions of society. In the reconstruction phase, the goal is to create a new and vibrant economy, recognizing that the pre-disaster state can never be fully reproduced. Shimada argues that social capital has an important role to play during both phases. During the recovery phase, social capital supports mutual assistance and collective action and ultimately encourages community members to return to disaster-hit areas. During the reconstruction phase, social capital can catalyze job matching and help businesses to rebuild. Drawing on examples from JICA aid programs, Shimada argues that there are many opportunities for promoting social capital through disaster prevention and relief efforts and that they should be seized. The preparation of hazard maps and community-based recovery projects offer some promising lessons to inform the design of future programming.

Conclusion: Push-Pull Engines for the Last Mile

The most efficient way of propelling a long train forward is to employ multiple engines, positioned strategically along its length. Typically, the engine(s) at the front "pulls" about two-thirds of the weight, while the rear engine(s) "pushes" the remaining one-third. This structure of "distributed power" reduces friction losses. The process of economic development and poverty reduction can be thought of in a similar way. Economic growth and the policies that support it provide the bulk of the force that pulls people toward higher living standards. But simultaneous efforts are needed to push those people and places that are left behind. The chapters in this book focus on where the push needs to occur if the last mile in ending extreme poverty is to be completed. They address common problems that serve as a drag on poverty reduction. In each case, the potential for overcoming the problem through general growth-enhancing policies seems to be insufficient. Additional actions to solve these problems are needed.

The goals of securing peace, creating jobs, and building resilience have tended to evade straightforward solutions and technocratic learning. As a result, today's toolkit of strategies and interventions remains inadequate and incomplete. While the proposals presented in this book fall short of providing complete guidance to developing countries and the broader global development community, they begin to address those deficiencies.

The future trajectory of global poverty remains impossible to predict, but our understanding of what it will take to navigate the last mile is growing. The challenge for the global community is to expand and act on that knowledge so that the goal of achieving a poverty-free world by 2030 is achieved.

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