

# What Development Economics Is All About

*Suppose you were blindfolded and airlifted abroad. After you arrive in a small town and remove the blindfold, your job is to determine the income level of the place based only on sixty seconds of observation. What would you look for? If you have traveled or lived in a developing country, you might have a head start on this assignment: Is it hot and humid? What are people wearing? Eating? How are people getting around? What do the streets and buildings look like? Do the animals look pampered? Do you see trash or trash cans? And the new smells! Most people, when exposed to living standards far below their own, want to help in some way. Economists (yes, even economists!) feel this impulse and wonder: Why are some places rich and others poor? What can be done to reduce poverty and encourage economic growth? In this chapter, we introduce development economics and describe the emergence and evolution of this field.*

## ESSENTIALS

- ▶ Evolution of development economics
- ▶ “Big push” interventions
- ▶ Import substitution and export promotion
- ▶ Market failures
- ▶ Inseparability of efficiency and equity

Malawi is one of the poorest countries in the world. The average person living there had an annual income of \$389 in 2018. That is not even a dollar a day. Even when we adjust for a low cost of living, the average Malawian lived off what in the United States would be the equivalent of around \$3 a day.<sup>1</sup>

“What is the solution to Malawi’s pervasive poverty?” While it is certainly natural to ask it, this question may not be very helpful in practice. In the words of economist Thomas Sowell: “There are no solutions. There are only trade-offs.”

Like other least-developed countries (LDCs), Malawi has tried a number of different strategies to stimulate development and raise the welfare of its people.<sup>2</sup> It made the growth of smallholder production a cornerstone of its development and poverty-alleviation strategy by focusing on improving smallholders’ access to agricultural input and output markets. Eighty-one percent of Malawi’s population is rural, and smallholders make up about 90% of the poor. Food production is a major source of livelihood for most rural households. Productivity and, in particular, fertilizer use, are low. Only 67% of agricultural households used fertilizer in 2004.<sup>3</sup>

Before 1998, Malawi relied on market price supports to transfer income to farm households. (Other African

countries continue to pay farmers above-market prices.) In recent years, fertilizer subsidies were the primary method of transferring income to rural Malawi households. Paying for farmers' inputs is expensive and controversial. More than 50% of the Ministry of Agriculture's budget has gone toward paying for input subsidies.<sup>4</sup>

Most recently, the country has taken a new line of attack by introducing a social cash transfer scheme (SCTS) that targets ultra-poor households (those living on less than \$0.10 per day) whose members are unable to work due to disability, age, illness, or a high dependency ratio (too many people to take care of at home). Rather than specifically targeting agricultural production, like the price supports or fertilizer subsidies, cash transfers raise incomes directly, allowing households to increase consumption or to invest in production activities. The government and researchers hope these transfers will stimulate production in other ways while creating positive spillovers that benefit other households in the economy.

Field research to test the effectiveness of SCT programs is ongoing. SCT programs are being implemented throughout the continent, in Ethiopia, Ghana, Kenya, Zambia, Zimbabwe, Lesotho, and other poor countries. The United Nations Children's Fund (UNICEF) and the UN's Food and Agricultural Organization (FAO), in conjunction with several universities and agencies, have launched an ambitious project to document the impacts of these transfer programs on a range of outcomes, from crop production to HIV/AIDS prevention.<sup>5</sup>

Development economists are on the front line of this most recent effort, helping to design and evaluate SCT programs. On a micro level, this is a good example of the sorts of things development economists do. More generally, development economics is about sizing up the trade-offs involved in poverty alleviation and economic development more broadly. Recently, much of this work aims to rigorously assess what works and what doesn't as part of exploring these trade-offs, which is why we dedicate chapter 2 to this topic.

## WHAT IS DEVELOPMENT ECONOMICS?

Usually, a development economics class is a potpourri of special topics. It's hard for it not to be, because economic development involves so many different things:

- It's income growth (how can we have development without growth in countries whose per capita incomes now hover around \$1–2 per day?).
- It's welfare economics, including the study of poverty and inequality.
- It's agricultural economics. How to make agriculture more productive is a big question in countries where most of the population—particularly the *poor* population—is rural and agricultural.

- It's economic demography, the study of population growth in a world with more than 7 billion people, and population distribution in a world with more than a quarter of a billion international migrants and many more internal ones. (China alone has hundreds of millions of internal migrants.)
- It's labor economics: education, health, conditions in the workplace.
- It's the study of markets for goods, services, inputs, outputs, credit, and insurance, without which whole economies can grind to a standstill.
- It's public economics, including the provision of public goods from roads and communications to utilities and waste treatment, and it's about managing the macro economy, too.
- It's about natural resources and the environment: energy, water, deforestation, pollution, climate change, sustainability.

What is economic development *not* about, you might ask?

Lurking behind this question is another—one that lies at the heart of why we wrote this book: Why is there even a field of development economics? After all, most economics departments have courses in each one of the above areas—and more.

Development economics seeks to understand the economic aspects of the development process in low-income countries. This implies that there must be something different about studying economics in low-income countries.

Clearly there is. Economic development entails far-reaching changes in the structure of economies, technologies, societies, and political systems. Development economics is the study of economies that do not fit many of the basic assumptions underpinning economic analysis in high-income countries, including well-functioning markets, perfect information, and low transaction costs. When these assumptions break down, so do the most basic welfare and policy conclusions of economics.

This book, like other development economics texts, touches on many different topics. However, its focus is on the fundamental things that distinguish rich and poor countries and the methods we use to analyze critical development economic issues. After reading and studying it, you will be familiar with the basic tool kit development economists use to do research, begin to understand what makes rich and poor countries different, and have an appreciation for the theory and practice of development economics.

## THE EVOLUTION OF DEVELOPMENT ECONOMICS

Economics classes rarely spend much time on history. But the brief history of development economics is instructive. Appreciating how economists have come to understand economic development helps *us* understand the various development approaches people have taken over time and how we got to the

ideas that are popular now. What economists *thought* development meant at the beginnings of our field's history is quite different from the way we see it today.

The origins of modern development economics are not found in low-income countries, but rather in relatively developed countries devastated by war.<sup>6</sup> In the aftermath of World War II, there was a need for economic theories and policies to support the rebuilding of war-torn Europe and Japan. The United States adopted the Marshall Plan to help rebuild European economies. This was a massive program: \$13 billion over four years was a lot of money back then!

In the wake of the success of the Marshall Plan, economists shifted their attention in the 1950s and 1960s from Europe to the economic problems of Africa, Asia, and Latin America. Lessons learned in Europe did not transfer easily to those settings; it quickly became clear that poor countries faced fundamentally different challenges.

Early development economists focused on income growth, often blurring the lines between growth and development. In poor countries, major structural transformations were needed to achieve growth. By comparing different countries' growth experiences (including the past experiences of the more developed countries), economists tried to uncover the conditions that determine successful development and economic growth.

### Taking Off

Seminal work during this early period of development economics includes Walter Rostow's treatise on the stages of economic growth: the traditional society, the preconditions for take-off, the take-off, the drive to maturity, and the age of high mass consumption.<sup>7</sup> Nobel laureate Simon Kuznets (whom we shall revisit later in this chapter) countered this simplistic view that all countries go through a similar linear set of stages in their economic history. He argued instead that key characteristics of today's poor countries are fundamentally different from those of high-income countries before they developed.

### The Anatomy of Growth

Economists recognized the need to understand how the growth process works. Growth is important enough to get its own chapter in this book (chapter 7). There, we'll focus on modern growth theory, but growth models have played an important role since the start of development economics.

A simple aggregate growth model developed by Sir Roy F. Harrod and Evsey Domar became part of the basic creed of development economists in the 1950s and 1960s.<sup>8</sup> The Harrod-Domar model's main implication was that investment is the key driver of economic growth. It focused economists' and policy makers'

attention on generating the savings required to support higher growth rates in poor countries. Although simplistic, this was a precursor to models used to analyze economic growth in developing countries today.

Nobel laureate W. Arthur Lewis viewed growth through a higher-resolution lens. His famed work, "Economic Development with Unlimited Supplies of Labor," shifted attention from aggregate growth to structural transformation.<sup>9</sup> Lewis introduced the dual-sector model, demonstrating that the expansion of the modern (industrial or capitalist) sector depends on drawing labor from the traditional (agricultural or subsistence) sector. He focused on poor, labor-rich countries in which a labor surplus in the subsistence sector could be a valuable resource for industrial growth: industry could expand without putting upward pressure on wages. Implicit in the Lewis model is a simple, demand-driven model of migration: as urban industry expands, people move off the farm to fill the new jobs. Whether or not workers really can be moved out of agriculture without losing crop production is an empirical question that some economists still try to answer today.

Lewis was criticized for largely ignoring agriculture. His work was extended and formalized by Gustav Ranis and John Fei, who demonstrated that industrial growth depends on agricultural growth as well as industrial profits.<sup>10</sup> If agricultural production does not keep up, food prices rise, and this forces urban wages up, squeezing profits and investment in industry. The growth of industry, then, depends on agriculture in a way that is easy to miss. Recognition that different sectors of the economy are linked in critical ways was an important contribution of dual-economy models and is a basis for more sophisticated economy-wide models today. We look at these models in chapter 10 (structural transformation).

The assumption that there is surplus labor in the traditional sector (i.e., that the marginal product of labor there is zero) was questioned by another Nobel laureate, Theodore Schultz.<sup>11</sup> He pointed out evidence of labor shortages during peak harvest periods even in economies like India and China, where a labor surplus existed at other times of the year. Thus, he argued, one cannot assume that countries can move labor out of agriculture without suffering a drop in crop production—unless they adopt new agricultural technologies. Schultz emphasized the importance of technological innovation and revolutionized economists' thinking by putting forth the thesis that farmers in LDCs are "efficient but poor." That is, while they might appear to be inefficient (compared, say, to commercial farmers in rich countries), poor farmers actually optimize given the severe resource constraints they face, including traditional technologies and limited human capital. The efficient-but-poor hypothesis continues to shape the way development economists think about and model poor rural economies, as we see in chapter 9 (agriculture). Nevertheless, recent work questions whether production, land tenancy (e.g., sharecropping), and other institutions in poor countries really are efficient in an economic sense.

The burgeoning early development economics literature produced far too many works to catalogue here, but two others deserve special mention because of the far-reaching impact they had on economic thinking and, more importantly, policies.

### **Import-Substitution Industrialization**

In 1950, Raúl Prebisch and Hans Singer independently observed that the terms of trade, or the ratio of prices, between primary (agricultural, resource extraction) and manufactured products erodes over time.<sup>12</sup> As people's income increases, the share of income they spend on manufactures increases, while the share spent on primary goods falls. This happens globally as well as locally. Prebisch and Singer argued that this drives up the prices of manufactured goods relative to primary goods. Poor countries that continue to specialize in primary-goods production lose out compared to countries that protect and promote their industries. The way Prebisch and Singer saw it, sticking with primary-goods production is like investing in a waning industry—the opposite of what good investors do.

Prebisch and Singer's work was enormously influential in promoting protectionist trade policies, shielding infant industries in poor countries from international competition. Its policy prescriptions ran soundly against the doctrine that countries should follow their comparative advantage in trade. In retrospect, countries that followed this advice did not fare as well as countries like the "Asian tigers" (Hong Kong, Singapore, South Korea, and Taiwan), which followed more outward (trade)-oriented development models, as we shall see in chapter 13 (international trade and globalization).

### **Linkages**

Albert Hirschman, another early pioneer in development economics, put forth the interesting and influential argument that imbalances between demand and supply in LDC economies can be good: they create pressures that stimulate economic growth.<sup>13</sup> Hirschman was instrumental in creating a focus on economic linkages, which pervade economy-wide modeling, a staple of development policy analysis today (chapter 10) as well as of some recent project impact evaluation models (chapter 2). By promoting investments in industries with many linkages to other firms, governments can have a multiplier effect on economic growth; the effects of a policy spread to industries linked to the targeted industry. Backward linkages transmit growth effects from an input-demanding activity (e.g., textiles) to input suppliers (cotton mills or wool producers). Forward linkages stimulate the growth of activities ahead of firms, as when investment in an electricity generator facilitates the growth of electricity-using industries.

Hirschman argued that agriculture generated few linkages with the rest of the economy. This, particularly when combined with the Prebisch-Singer hypothesis, contributed to the sense among policy makers that agriculture is unimportant and countries ought to use their scarce resources to promote industrial, not agricultural, growth. John Mellor countered this argument in his seminal work, *The New Economics of Growth*, which documented the importance of consumption linkages between rural households and urban industries.<sup>14</sup> If most of a country's population is rural, where will the demand for new industrial production be if not in rural households? Rising agricultural incomes, then, provide a critical market for manufactures, thereby stimulating industrial growth.

Development economists had begun to take more of a systems view of poor economies, recognizing the linkages among production sectors and between firms and households that are important in shaping economic growth. They would soon rethink their emphasis on growth, though.

### Rethinking Growth: Inequality and Poverty

The United Nations declared the 1960s to be the decade of development. In 1961, it called "on all member states to intensify their efforts to mobilize support for measures required to accelerate progress toward self-sustaining economic growth and social advancement in the developing countries." Each developing country set its own target, but the overall goal was to achieve a minimum annual growth rate of 5% in aggregate national income by the end of the decade.<sup>15</sup> The world came close to realizing the UN's goal. LDCs achieved an average annual growth rate of 4.6% from 1960 to 1967. However, their population also increased. As a result, their per capita gross domestic product (income divided by population) rose only about 2%.

By the time the UN "development decade" ended in 1970, the gap between rich and poor countries had widened: two-thirds of the world's population had less than one-sixth of the world's income. This raised new questions about the meaning of development. Evidently, a tide of rising world income did not lift all—or even most—boats. The UN General Assembly concluded that one of the reasons for the slow progress was the absence of a clear international development strategy.

The problem of rising inequality made development economists rethink their focus on growth. Before then, the key work linking growth and inequality was Simon Kuznets's "inverted U" hypothesis. It stated that economic growth decreases inequality in rich countries but increases it in poor countries.<sup>16</sup> It tended to create a sense of complacency about inequality: sure, inequality increases for a while as poor countries grow, but eventually countries "out-grow" it and become more equal. At least, that's what Kuznets saw when he used cross-section data to compare rich and poor countries. (Cross-section

data are data on different countries at the same point in time. It would have been nice to track the same countries over time to see if inequality first increases then decreases as economies grow, but we didn't have the data to do that back when Kuznets put forth his novel theory.)

As panel data have become available to track individual countries' growth and inequality, the inverted-U theory has been challenged repeatedly in the development economics literature, though it seems to fit some countries well. (Panel data provide information on the same units—here, countries—over time.) Today, China is growing fast, and inequality there is increasing. Brazil and Mexico have much higher per capita incomes than China, and inequality there is going down. Then there's the United States, where inequality fell through the 1970s but is rising again now.

Development economics shifted its attention from income growth to income inequality (chapter 5). In 1974, Hollis Chenery, head of the World Bank's economic research department, and colleagues published an influential book called *Redistribution with Growth*.<sup>17</sup> It demonstrated that when assets (such as land) are distributed unequally, economic growth creates an unequal distribution of benefits. Around the same time (1973), Irma Adelman and Cynthia Taft Morris published a book called *Economic Growth and Social Equity in Developing Countries*.<sup>18</sup> They found that as incomes grew, not only did inequality increase, but the *absolute* position of the poor *worsened*. At the early stages of a country's economic growth, the poorest segment of society may be harmed, as traditional economic relationships in subsistence economies are displaced by emerging commercial ones. Growth was more equitable in countries that redistributed assets, like land and human capital (education), *before* the growth happened.

Robert McNamara, the World Bank's president, presented Chenery's findings at a 1972 UN conference in Santiago, Chile. This staked out a new position for the World Bank and the development economics profession more broadly that growth alone is not enough. McNamara and many development economists recommended redistribution before growth; for example, land reforms and other measures to raise the productivity of small farmers and widespread rural education programs. The development economics mantra had shifted from income growth (chapters 3 and 7) to poverty (chapter 4), and inequality (chapter 5). The work of Amarty Sen expanded the scope of economic development yet further to include dimensions of human development such as health, nutrition, education, and even freedom (chapter 6).

National planning offices cropped up around the world, often with "five-year plans" inspired by the Soviet Union's planning models but not necessarily socialistic in nature. (While Ed was an undergraduate student he worked for a year with the National Planning Office in Costa Rica, which had five-year plans but was hardly a communist state!) This period saw the advent of economy-wide models as a tool for development planning and policy. These models

were designed to simulate the complex impacts that policies have on whole economies as well as on particular social groups. They continue to be a staple of development economics research and policy design and are often at the center of a lively debate about the role of planning and markets in economic development.

The 1970s marked the beginning of what has become an ongoing friction between direct government involvement in the development process and market-led development—a tension we will address throughout this book because it stems from essential ideas in development economics. The traditional neo-classical economic view, inspired by Adam Smith’s “invisible hand,” is that individuals and firms, in the pursuit of their self-interest, are led as if by an invisible hand to economic efficiency. For example, competition among profit-maximizing firms drives down prices for selfish, utility-maximizing consumers. However, the invisible hand does not typically lead to fair outcomes, so government intervention can often play a role in promoting social objectives other than efficiency, such as equality or protection of domestic industries.

The 1960s and 1970s witnessed increasing government involvement in markets: setting prices, controlling trade, and creating “para-statal” enterprises that did everything from buying and selling crops to drilling for oil. Much of the focus of these efforts was on stimulating industrial growth; however, most of the population in poor countries—especially the very poor—depended heavily on agriculture. In many countries, import-substitution industrialization policies created severe biases against agriculture, in three ways:

1. “Cheap food policies” directly harmed agriculture while helping to keep urban wages low.
2. Steep tariffs and quotas on imported industrial goods and direct subsidies were used to promote industrialization. This increased the profitability of industrial compared to agricultural production.
3. Macroeconomic policies like overvalued exchange rates made imported industrial inputs and technologies (as well as food) cheaper. This created yet another bias against agriculture by making traded goods (food) less profitable than nontraded goods (manufactures, which were protected from trade competition).

### Trusting Markets

The 1980s saw the beginning of a backlash against too much state involvement in the economy. This was the era of Ronald Reagan and Margaret Thatcher, in which we recognized the inefficiencies of state-planned economic systems such as those in the Soviet Union and China compared with the more laissez-faire political systems in the West. Meanwhile, it became clear that the countries that were experiencing the most rapid and broad-based growth were *not*

the inward-oriented countries following import-substitution industrialization, like Kenya, Mexico, and Brazil. Instead, they were the outward export-oriented economies, particularly the Asian tigers. In those countries, governments were involved, sometimes heavily, in the economy, but opening up to market competition made it possible to become competitive on a world scale.

Another part of the impetus for shifting away from state involvement and toward markets came in the 1970s and 1980s as the world economy went into recession with soaring oil prices. This sparked debt crises in many LDCs (particularly in Latin America), forcing them to rethink their development policies—often as part of “structural adjustment” programs required by the International Monetary Fund (IMF) as a condition for restructuring their debt. These adjustments invariably reduced the direct involvement of the state in the troubled economies.

The World Bank’s *World Development Report 1984* endorsed many of these dominant pro-market positions. It called for removing distortions created by governments’ over-involvement in agricultural markets. Almost overnight, governments began to withdraw from markets, dismantling import-substitution industrialization policies and opening up to trade. Less-developed countries around the world entered into free-trade agreements (chapter 13).

### **Not (Quite) Trusting Markets**

The market liberalization movement continued into the 1990s; however, the enthusiasm for free trade became tempered by a realization that market liberalization does not necessarily improve people’s economic welfare if markets do not work properly. This produced a surge of research documenting market failures in LDCs as well as their underlying causes. (Market failures are a focus of chapter 11.)

Broadly speaking, a free market fails if it does not work efficiently—that is, if there is another scenario in which a market participant could be made better off without making others worse off. Often, markets fail so miserably that they do not exist at all for many people. Most poor people do not have access to credit, most farmers in Africa do not sell their crops, and almost nobody in poor countries has access to formal insurance.

Joseph Stiglitz, who received the 2001 Nobel Prize in economics, along with other economists, demonstrated that markets are rarely efficient. He attributed this largely to imperfect information, which creates high transaction costs that in turn lead to widespread market failures, particularly in poor countries. Since understanding market failures is fundamental to development economics, we will learn about several sources of market failures in this book.

When markets do not work well, government involvement in the economy can often improve welfare. Development economists have been careful to warn that market failures do not necessarily warrant broad state intervention in the

economy: government failures can be worse than market failures. However, the scope for the state to improve welfare by intervening in markets, it seems, is much larger than previously thought.

### **The "Big Push"**

Is economic development an incremental process, in which countries change bit by bit and one advance builds upon another? As early as 1943, Paul Rosenstein-Rodan argued that many development projects, each addressing a different aspect of underdevelopment, will not eventually add up to successful development. A more comprehensive, coordinated approach is needed. In the 1980s, a group of development economists picked up the torch and called for a "big push" approach, arguing that injections of small amounts of money into development projects will simply waste resources. Their view was summed up by this passage: "There is a critical ground speed which must be passed before the craft can become airborne. . . . Proceeding 'bit by bit' will not add up in its effects to the sum total of the single bits. A minimum quantum of investment is a necessary, though not sufficient, condition of success."<sup>19</sup>

Rosenstein-Rodan's big push theory motivated the Millennium Villages Project, a demonstration project launched by Jeffrey Sachs at Columbia University in 2004. We will learn more about the Millennium Villages Project and its critics in chapter 7.

### **The Experimental Revolution**

Today, much of the focus of development economics has shifted to the micro level and to project impact evaluation. Increasingly, development economics research involves using experiments to learn about people's economic behavior and evaluate the impacts of policy interventions on welfare outcomes. When experiments are not possible, economists use other methods, including econometrics and simulation modeling, to try to identify the impacts of policies and programs. The social cash transfer programs mentioned at the start of this chapter are an example. Today, if you work for a nongovernmental organization (NGO), an international development agency, or even an LDC government, there is a good chance you'll be dealing with experimental economics. Experiments have become such an important part of development economics that we devote almost an entire chapter to them in this book (chapter 2).

### **WHAT IS ECONOMIC DEVELOPMENT, THEN?**

Economic development has different meanings in different contexts. In rich countries, it is pretty much equated with growth. Picture the urban developer

who makes skyscrapers sprout from vacant lots in a blighted city core. Politically, development projects in high-income countries often are motivated by some of the same goals that inspire development projects in poor countries, particularly the creation of new jobs, incomes, and tax revenues. Their ultimate aim, however, is likely to be growth.

Most development economists today would say that economic development is not equivalent to growth, although it is difficult to achieve development goals without growth. Development projects around the world focus on concrete outcomes related to poverty, malnutrition, inequality, and health. Development is about satisfying basic physical needs like nutrition, shelter, and clothing, and about the development of the mind (and of course people's earnings potential) through education. Projects also focus on the environment, conservation, and sustainable resource use; on human rights, gender and ethnic equity, and even government corruption (a topic we take up in chapter 8).

All of these questions can be vital not only to determining who reaps the benefits of economic growth, but also to understanding growth itself. Herein lies a fundamental difference in the way we tend to look at economics and politics in rich and poor countries. In high-income countries (not to mention our microeconomics courses), economic efficiency and equity tend to be viewed as separate questions. The efficient allocation of resources is critical to ensure that economies produce the biggest possible economic pie, given the constraints they face (i.e., limited resources and technologies). Efficiency is the primary focus of the vast majority of our economics classes.

What about equity? How the pie gets distributed is usually an afterthought in economics—something more in the domain of politics than economics. Think about the economics courses you've taken. The textbook view is that efficiency and equity are sequential, or recursive, problems: first grow the pie, then, once that's done, think about how it gets distributed (or step back and let the market decide).

Clearly, there's an important separability assumption here: that efficiency can be achieved regardless of how income is distributed. Is this a reasonable assumption? In a competitive market equilibrium, there will be different outcomes depending upon what the initial distribution of wealth looks like. But provided the basic assumptions of the competitive model (which you learned in your introductory economics courses) hold, all will be efficient in the Pareto sense: you cannot make anyone better off without making someone else worse off. If you ever studied an Edgeworth box, you've seen how economists show this.

The separability of equity and efficiency was reinforced by the Nobel laureate Ronald Coase, who argued that bargaining can lead to an efficient outcome regardless of the initial allocation of property rights, even in the case of externalities (a cost or benefit not reflected in market prices, like pollution). According to Coase, if we can costlessly negotiate, it doesn't matter whether you have

the right to smoke or I have the right to breathe clean air. Once we have finished bargaining with each other, the amount of smoke in the air will be the same. This so-called Coase theorem describes the necessary conditions for treating efficiency and equity separately.

If efficiency and equity were truly separable, there would be little room for economic policy, or for efficiency-minded economists to worry about equity. (Of course, even economists might worry about equity for other, i.e., humanitarian, reasons.)

If only things were that simple! Alas, as Coase knew very well, negotiation is never costless (and often prohibitively expensive). For this and many other reasons, a great deal of development economists' effort goes into discovering how equity and efficiency are intertwined, especially in poor countries. How assets are distributed clearly affects efficiency if the following conditions hold:

- Banks are unwilling to loan money to small farmers.
- Poor people cannot get insurance to protect themselves against crop loss or sickness.
- Poverty and malnutrition prevent kids from growing up to become productive adults.
- Access to markets for the stuff people produce, the inputs they use, and the goods they demand is different for the poor and rich.
- The ability to get a job depends on who you are, not on how productive you are.
- Disfavored groups—including women—are excluded from some productive activities.

In these and many other cases, the separability of equity and efficiency breaks down. A person's capacity to produce or consume efficiently depends upon how wealth and power are distributed, because the basic assumptions of competitive markets often don't hold for the poorest or otherwise disfavored members of society. A rich farmer can produce where the market price equals the marginal cost of producing a crop, the basic requirement for profit maximization and efficiency. But if a poor farmer lacks the cash to buy fertilizer, and no bank will lend to her, she will not be able to produce as efficiently as the large farmer. This implies that efficiency depends on how income and wealth are distributed to begin with, which is an important departure from standard assumptions in economics.

The conditions under which equity affects efficiency are many, and they permeate the economies and societies of poor countries. Development economics, perhaps more than anything else, is the study of economies in which equity and efficiency are closely interrelated. This opens up a whole realm of possibilities for policy and project interventions to increase economic efficiency as well as equity. More often than not, equity and efficiency are not only complementary; they are inseparable.

## AN EVOLVING DEVELOPMENT AGENDA

Many international institutions provide aid and advice to developing countries. International development organizations fall into two broad categories: multilateral and bilateral. Multilateral institutions are formed by a group of countries. The most prominent examples are the World Bank and United Nations, both of which have a membership that includes nearly every country in the world. The World Bank provides loans and technical assistance to reduce poverty and promote sustainable growth. The United Nations (UN) has many agencies, which carry out projects focusing on a diversity of development priorities, including agricultural production and food security (the Food and Agriculture Organization [FAO], the World Food Program [WFP], and the International Fund for Agricultural Development [IFAD]), health (the World Health Organization [WHO]), child welfare (UN Children's Fund [UNICEF]), refugees (the UN Refugee Agency [UNHCR]), workers (the International Labor Organization [ILO]), and poverty and inequality (the UN Development Program [UNDP]). The list of UN agencies is considerably longer than this, and many have portfolios that include development projects.

Many countries have bilateral development agencies that channel aid from one government (typically a high-income country) to another (usually a developing country). A few examples include the United States Agency for International Development (USAID), Germany's Federal Ministry for Economic Cooperation and Development (KfW), the United Kingdom's Department for International Development (DFID), the Japan International Cooperation Agency (JICA), and the China International Development Cooperation Agency (CIDCA).

In 1969, the Organization for Economic Cooperation and Development (OECD), comprised of high-income countries, coined the term "official development assistance" or ODA, to refer to bilateral and multilateral aid flows, mostly from rich to poor countries. Specifically, the OECD defines ODA as "flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 percent (using a fixed 10 percent rate of discount). By convention, ODA flows comprise contributions of donor government agencies, at all levels, to developing countries ('bilateral ODA') and to multilateral institutions. ODA receipts comprise disbursements by bilateral donors and multilateral institutions." Each year, the OECD calculates ODA from each of the thirty countries that are members of its Development Assistance Committee (DAC). It estimates that total ODA equaled US\$153 billion in 2018.<sup>20</sup>

In addition to ODA, many private voluntary agencies and NGOs provide aid to developing countries. Some of the largest NGOs are household words, including the Cooperative for Assistance and Relief Everywhere (CARE),

Oxfam International, the International Federation of Red Cross and Red Crescent Societies (IFRC), Action Against Hunger (AAH), Heifer International, Save the Children, and Doctors without Borders. However, there are many, many others around the world. Some focus on designing and implementing development projects, and others more on emergency humanitarian assistance. Private aid is larger than ODA, totaling approximately US\$240 billion in 2017, according to the OECD.

A different source of support for development has captured the attention of governments and researchers in recent years: international migrant remittances, or income sent home by migrants living and working outside their countries of origin. Migrant workers are not development agencies, but the money they send to low- and middle-income countries—US\$550 billion in 2018—dwarfs ODA and private development assistance. Migrant remittances have become the largest source of external financing for low- and middle-income countries.<sup>21</sup> They target households in poor, migrant-sending areas around the world. Studies show that they can have large impacts on development and welfare in migrant-sending households as well as others in the communities of which they are part.<sup>22</sup>

The kinds of projects that international development agencies carry out evolve with countries' circumstances and needs, our understanding of economic development, and the priorities of individual donors. To try to provide a coherent focus, in September 2000, 189 nations came together at United Nations headquarters in New York and adopted the United Nations Millennium Declaration. In it, they committed to creating a new global partnership to reduce extreme poverty and achieve a set of eight development targets by 2015, ranging from eradicating extreme poverty to promoting gender equality. These targets became known as the Millennium Development Goals (MDGs).<sup>23</sup>

In 2015 the UN replaced the MDGs with seventeen Sustainable Development Goals (SDGs), recognizing that “ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth—all while tackling climate change and working to preserve our oceans and forests.”<sup>24</sup>

The SDGs, like the MDGs, are examples of bold efforts to provide governments and development agencies with a focus and blueprint for achieving key development objectives. Setting goals like these and monitoring progress toward achieving them requires tremendous amounts of data, good measurement methods, and above all, commitment. If you attend almost any international development meeting, you almost certainly will hear them come up. Governments and international development agencies often use them to motivate and justify specific development projects. But they are not without their detractors. There is ongoing debate among economists about whether this kind of formal “technocratic” approach, in which scientists and experts are in control, is beneficial or harmful. It may help the poor, by funneling funds and

expertise to areas of urgent need. However, it could do the opposite by imposing external power and plans that do not reflect their local context.

## THE ORGANIZATION OF THIS BOOK

This book was written to provide students with the essential tools and concepts of development economics. Most development texts are written around topics: money, labor, population, and so on. The chapters in this book are less about topics than about providing a window into how developing economies are different and how this shapes the way we study them. Most of the cutting-edge research by economists is found in journal articles that are beyond the reach of most undergraduate students. Sidebars scattered throughout the book try to make important research in influential articles accessible, summarizing the questions they ask, the methods they use, key findings, and why they are important.

Our hope is that by the end of this book, students will have greater appreciation for what economists bring to development research and policy and be conversant in many of the approaches they employ. In this sense, we aim to provide students with a sense of the scope of development economics by exploring the kind of work development economists actually do. Since much of our own research focuses on microeconomic questions and methods, this book admittedly emphasizes microeconomic over macroeconomic perspectives on economic development. While we have tried to weave in important macroeconomic concepts in several chapters, we acknowledge that this treatment of complex ideas with real policy relevance is quite cursory. That said, we take comfort in the fact that much of the frontier research in development economics in recent decades has also had a microeconomic bent.

The rest of this book is all about seeking answers to big questions.

As households and individuals seek out livelihoods in increasingly complex and global economies, governments, international development agencies, and development banks carry out a wide diversity of development projects. Evaluating the impacts of these programs is the focus of a new generation of development economists, inspired largely by experimental methods. Chapter 2 looks at why economists do experiments, what the limitations of experiments are, how to evaluate impacts when there is no experiment, cost-benefit analysis of development projects, and how projects and policies may affect nonbeneficiaries as well as beneficiaries.

Chapters 3 through 6 are about understanding, measuring, and analyzing the four key elements of economic development: income (chapter 3), poverty (chapter 4), inequality (chapter 5), and human development (chapter 6).

A theme that emerges from the first six chapters is that income growth is an important, though by no means sufficient, condition for achieving economic

development. How can countries, regions, and households make their incomes grow? Chapter 7 (growth) gives an introduction to aggregate (national) growth theory and concludes by asking whether poor countries, regions, and households are “catching up,” and whether income growth alone will enable countries to develop.

Institutions are analogous to operating systems for economies and societies. When they do not work well, even the best-designed development policies and projects can fail to meet their objectives. We dedicate a whole chapter (chapter 8) to institutions—what they mean to a development economist and how they shape economic development outcomes.

Agriculture still dominates the economies of many countries in terms of income and employment. Chapter 9 (agriculture) presents the key tools economists have come up with to analyze agricultural economies, with an eye toward understanding a wide array of impacts, from agricultural policies to trade and climate change. This chapter begins with the agricultural household model, the staple of microeconomic analysis of agricultural and rural economies. It concludes with village and rural economy-wide models, which let us see how households are connected with each other and transmit impacts of policy, market, and environmental shocks.

Most of the world's poverty is in rural areas. Rural economies, though, are becoming less agricultural over time, as households get an increasing share of their income from non-agricultural activities. For a growing number of people, getting out of poverty means moving off the farm. Chapter 10 (structural transformation) looks at the far-reaching transformations of rural and national economies that accompany economic growth and what this means for how we do economic analysis and design development policies.

Markets and trade are vital for countries to grow and spread the benefits of this growth across a broad population. However, markets fail for many people, and others find themselves unable to compete in an increasingly global economy. In chapters 11 (information and markets), 12 (finance), and 13 (international trade and globalization), we see why economists think markets are so important to economic development, why markets fail for many people and things (with profound implications from poverty to climate change), how globalization creates both winners and losers, and what this all means for development policies. Two markets, those for credit and insurance, are particularly important—and more often than not conspicuously missing—for poor people in LDCs. Chapter 12 looks at how credit and insurance markets are important, why they fail, and what development researchers and practitioners are doing about it.

The epilogue is about where you will go from here and how the tools and skills in this book prepare you for new adventures in development—and life.

You can find links to multimedia resources that you can explore to enrich your learning, meet experts, and bring the real world into the textbook and classroom by visiting <http://www.rebeltext.org>.

**ADDITIONAL READING**

Each year, the World Bank publishes its World Development Report with its own special topic (not to mention a lot of data on an array of development indicators). These reports, available online at [www.worldbank.org/en/publication/wdr/wdr-archive](http://www.worldbank.org/en/publication/wdr/wdr-archive), cover an enormous array of topics. You will also find a summary of each report.