Chapter 7

Daron Acemoglu

ROOT CAUSES

A historical approach to assessing the role of institutions in economic development

TREMENDOUS DIFFERENCES IN INCOMES and standards of living exist today between the rich and the poor countries of the world. Average per capita income in sub-Saharan Africa, for example, is less than one-twentieth that in the United States. Explanations for why the economic fortunes of countries have diverged so much abound. Poor countries, such as those in sub-Saharan Africa, Central America, or South Asia, often lack functioning markets, their populations are poorly educated, and their machinery and technology are outdated or nonexistent. But these are only *proximate* causes of poverty, begging the question of why these places don't have better markets, better human capital, more investments, and better machinery and technology. There must be some *fundamental* causes leading to these outcomes, and via these channels, to dire poverty.

The two main candidates to explain the fundamental causes of differences in prosperity between countries are geography and institutions. The *geography hypothesis*, which has a large following both in the popular imagination and in academia, maintains that the geography, climate, and ecology of a society shape both its technology and the incentives of its inhabitants. It emphasizes forces of nature as a primary factor in the poverty of nations. The alternative, the *institutions hypothesis*, is about human influences. According to this view, some societies have good institutions that encourage investment in machinery, human capital, and better technologies, and, consequently, these countries achieve economic prosperity.

Good institutions have three key characteristics: enforcement of property rights for a broad cross section of society, so that a variety of individuals have incentives to invest and take part in economic life; constraints on the actions of elites, politicians, and other powerful groups, so that these people cannot expropriate the incomes and investments of others or create a highly uneven playing field; and some degree of equal opportunity for broad segments of society, so that individuals can make investments, especially in human capital, and participate in productive economic activities. These good institutions contrast with conditions in many societies of the world, throughout history and today, where the rule of law is applied selectively; property rights are nonexistent for the vast majority of the population; the elites have unlimited political and economic power; and only a small fraction of citizens have access to education, credit, and production opportunities.

Geography's influence

If you want to believe that geography is the key, look at a world map. Locate the poorest places in the world where per capita incomes are less than one-twentieth those in the United States. You will find almost all of them close to the equator, in very hot regions that experience periodic torrential rains and where, by definition, tropical diseases are widespread.

However, this evidence does not establish that geography is a primary influence on prosperity. It is true there is a *correlation* between geography and prosperity. But correlation does not prove causation. Most important, there are often omitted factors driving the associations we observe in the data.

Similarly, if you look around the world, you'll see that almost no wealthy country achieves this position without institutions protecting the property rights of investors and imposing some control over the government and elites. Once again, however, this correlation between institutions and economic development could reflect omitted factors or reverse causality.

To make progress in understanding the relative roles of geographic and institutional factors, we need to find a source of exogenous variation in institutions – in other words, a natural experiment where institutions change for reasons unrelated to potential omitted factors (and geographic factors remain constant, as they almost always do).

The colonization of much of the globe by Europeans starting in the fifteenth century provides such a natural experiment. The colonization experience transformed the institutions in many lands conquered or controlled by Europeans but, by and large, had no effect on their geographies. Therefore, if geography is the key factor determining the economic potential of an area or a country, the places that were rich before the arrival of the Europeans should have remained rich after the colonization experience and, in fact, should still be rich today. In other words, since the key determinant of prosperity remains the same, we should see a high degree of persistence in economic outcomes. If, on the other hand, it is institutions that are central, then those places where good institutions were introduced or developed should be richer than those in which Europeans introduced or maintained extractive institutions to plunder resources or exploit the non-European population.

Historical evidence suggests that Europeans indeed pursued very different colonization strategies, with very different associated institutions, in various colonies. At one extreme, Europeans set up exclusively extractive institutions, exemplified by the Belgian colonization of the Congo, slave plantations in the Caribbean, and forced labor systems in the mines of Central America. These institutions neither protected the property rights of regular citizens nor constrained the power of elites. At the other extreme, Europeans founded a number of colonies where they created settler societies, replicating – and often improving – the European form of institutions protecting private property. Primary examples of this mode of colonization include Australia, Canada, New Zealand, and the United States. The settlers in these societies also managed to place significant constraints on elites and politicians, even if they had to fight to achieve this objective.

Reversal of fortune

So what happened to economic development after colonization? Did places that were rich before colonization remain rich, as suggested by the geography hypothesis? Or did economic fortunes change systematically as a result of the changes in institutions?

The historical evidence shows no evidence of the persistence suggested by the geography hypothesis. On the contrary, there is a remarkable *reversal of fortune* in economic prosperity. Societies like the Mughals in India and the Aztecs and the Incas in America that were among the richest civilizations in 1500 are among the poorer societies of today. In contrast, countries occupying the territories of the less developed civilizations in North America, New Zealand, and Australia are now much *richer* than those in the lands of the Mughals, the Aztecs, and the Incas. Moreover, the reversal of fortune is not confined to this comparison. Using various proxies for prosperity before modern times, we can show that the reversal is a much more widespread phenomenon. For example, before industrialization, only relatively developed societies could sustain significant urbanization, so urbanization rates are a relatively good proxy for prosperity before European colonization. Figure 7.1 shows a strong negative relationship between urbanization rates in 1500 and income per capita today. That is, the former European colonies that are relatively rich today are those that were poor before the Europeans arrived.

This reversal is prima facie evidence against the most standard versions of the geography hypothesis discussed above: it cannot be that the climate, ecology, or disease environments of the tropical areas have condemned these countries to poverty today, because these same areas with the same climate, ecology, and disease environment were richer than the temperate areas 500 years ago. Although it is possible that the reversal may be related to geographic factors whose effects on economic prosperity vary over time – for example, certain characteristics that first cause prosperity then condemn nations to poverty – there is no evidence of any such factor or any support for sophisticated geography hypotheses of this sort.

Is the reversal of fortune consistent with the institutions hypothesis? The answer is yes. In fact, once we look at the variation in colonization strategies, we see that the reversal of fortune is exactly what the institutions hypothesis predicts. European colonialism made Europeans the most politically powerful group, with the capability to influence institutions more than any indigenous group was able to at the time. In places where Europeans did not settle and cared little about aggregate output and the welfare of the population, in places where there was a large population that could be coerced and employed cheaply in mines or in agriculture or simply taxed, in places where there were resources to be extracted, Europeans pursued the strategy of setting up extractive institutions or taking over existing extractive institutions and hierarchical structures. In those colonies, there were no constraints on the power of the elites (which were typically the Europeans themselves and their allies) and no civil or property rights for the majority of the population; in fact, many of them were forced into labor or enslaved. Contrasting with this pattern, in colonies where there was little to be extracted, where most of the land was empty, where the disease environment was favorable, Europeans settled in large numbers and developed laws and institutions to ensure that they themselves were protected, in both their political and their economic lives. In these colonies, the institutions were therefore much more conducive to investment and economic growth.

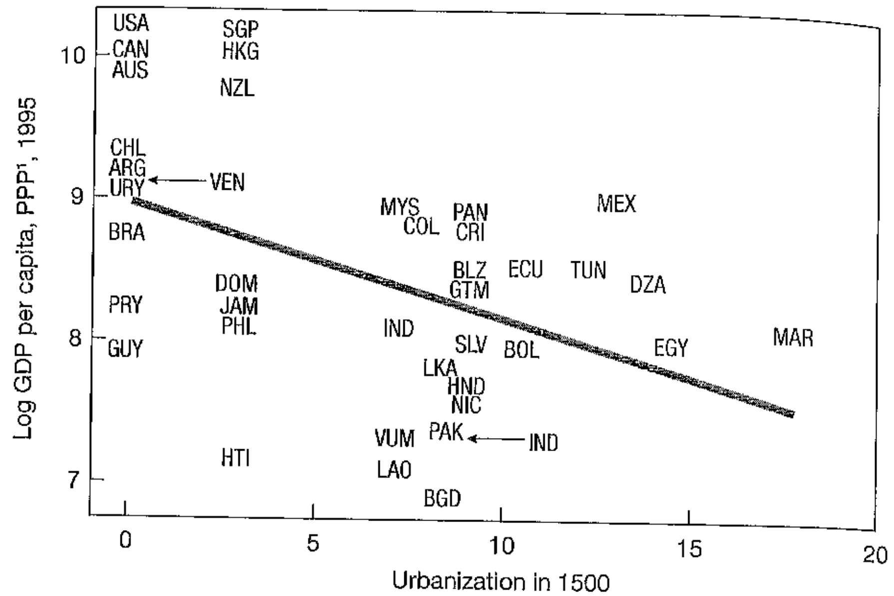

Figure 7.1 Shifting prosperity: Countries that were rich in 1500 are among the less well off societies today

Source: Author.

Note: ARG = Argentina, AUS = Australia, BGD = Bangladesh, BLZ = Belize, BOL = Bolivia, BRA = Brazil, CAN = Canada, CHL = Chile, COL = Colombia, CRI = Costa Rica, DOM = Dominican Republic, DZA = Albania, ECU = Ecuador, EGY = Egypt, GTM = Guatemala, GUY = Guyana, JAM = Jamaica, HKG = Hong Kong, SAR, HND = Honduras, HTI = Haiti, IDN = Indonesia, IND = India, LAO = Lao People's Democratic Republic, LKA = Sri Lanka, MAR = Morocco, MEX = Mexico, MYS = Malaysia, NIC = Nicaragua, NZL = New Zealand, PAK = Pakistan, PAN = Panama, PER = Peru, PHL = Philippines, PRY = Paraguay, SGP = Singapore, SLV = El Salvador, TUN = Tunisia, URY = Uruguay, USA = United States, VEN = Venezuela, VNM = Vietnam

[1]Purchasing power parity.

This evidence does not mean that geography does not matter at all, however. Which places were rich and which were poor before Europeans arrived might have been determined by geographic factors. These geographic factors also likely influenced the institutions that Europeans introduced. For example, the climate and soil quality in the Caribbean made it productive to grow sugar there, encouraging the development of a plantation system based on slavery. What the evidence shows instead is that geography neither condemns a nation to poverty nor guarantees its economic success. If you want to understand why a country is poor today, you have to look at its institutions rather than its geography.

No natural gravitation

If institutions are so important for economic prosperity, why do some societies choose or end up with bad institutions? Moreover, why do these bad institutions persist long after

their disastrous consequences are apparent? Is it an accident of history or the result of misconceptions or mistakes by societies or their policymakers? Recent empirical and theoretical research suggests that the answer is no: there are no compelling reasons to think that societies will naturally gravitate toward good institutions. Institutions not only affect the economic prospects of nations but are also central to the distribution of income among individuals and groups in society – in other words, institutions not only affect the size of the social pie, but also how it is distributed.

This perspective implies that a potential change from dysfunctional and bad institutions toward better ones that will increase the size of the social pie may nonetheless be blocked when such a change significantly reduces the slice that powerful groups receive from the pie and when they cannot be credibly compensated for this loss. That there is no natural gravitation toward good institutions is illustrated by the attitudes of the landed elites and the emperors in Austria-Hungary and in Russia during the nineteenth century. These elite groups blocked industrialization and even the introduction of railways and protected the old regime because they realized capitalist growth and industrialization would reduce their power and their privileges.

Similarly, European colonists did not set up institutions to benefit society as a whole. They chose good institutions when it was in their interests to do so, when they would be the ones living under the umbrella of these institutions, as in much of the New World. In contrast, they introduced or maintained existing extractive institutions when it was in their interest to extract resources from the non-European populations of the colonies, as in much of Africa, Central America, the Caribbean, and South Asia. Furthermore, these extractive institutions showed no sign of evolving into better institutions, either under European control or once these colonies gained independence. In almost all cases, we can link the persistence of extractive institutions to the fact that, even after independence, the elites in these societies had a lot to lose from institutional reform. Their political power and claim to economic rents rested on the existing extractive institutions, as best illustrated by the Caribbean plantation owners whose wealth directly depended on slavery and extractive institutions. Any reform of the system, however beneficial for the country as a whole, would be a direct threat to the owners.

European colonialism is only one part of the story of the institutions of the former colonies, and many countries that never experienced European colonialism nonetheless suffer from institutional problems (while certain other former European colonies have arguably some of the best institutions in the world today). Nevertheless, the perspective developed in this article applies to these cases as well: institutional problems are important in a variety of instances, and, in most of these, the source of institutional problems and the difficulty of institutional reform lie in the fact that any major change creates winners and losers, and the potential losers are often powerful enough to resist change.

The persistence of institutions and potential resistance to reform do not mean that institutions are unchanging. There is often significant institutional evolution, and even highly dysfunctional institutions can be successfully transformed. For example, Botswana managed to build a functioning democracy after its independence from Britain and become the fastest-growing country in the world. Institutional change will happen either when groups that favor change become powerful enough to impose it on the potential losers, or when societies can strike a bargain with potential losers so as to credibly compensate them after the change takes place or, perhaps, shield them from the most adverse consequences of these changes. Recognizing the importance of institutions in economic development and the often formidable barriers to beneficial institutional reform is the first step toward significant progress in jump-starting rapid growth in many areas of the world today.

Note

This article draws on the author's joint work with Simon Johnson and James Robinson, in particular, on Daron Acemoglu, Simon Johnson, and James A. Robinson, 2001, "Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, Vol. 91 (December), 1369–1401; Daron Acemoglu, Simon Johnson, and James A. Robinson, 2002, "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution," *Quarterly Journal of Economics*, Vol. CXVII (November), pp. 1231–94; and Daron Acemoglu and James A. Robinson, 2000, "Political Losers as a Barrier to Economic Development," *American Economic Review*, Vol. 90 (May), pp. 126–44, as well as on Daron Acemoglu, 2003, "Why Not a Political Coase Theorem? Social Conflict, Commitment and Politics," *Journal of Comparative Economics*, Vol. 31 (December), pp. 620–52.

REVIEW AND DISCUSSION QUESTIONS

1. According to the author, what are the characteristics of institutions that promote economic growth and development? Why are such characteristics conducive to development?
2. What empirical evidence does Acemoglu use to show that institutions are more important than geography in determining a country's economic development?
3. In what ways did geographical characteristics affect the institutions that European colonists established in many of today's developing countries?
4. What might prevent a change from "bad" to "good" institutions? Under what circumstances is such a change more likely to take place?
5. Do you believe that rich countries can help poor countries change their institutions? Why or why not? Explain.

Chapter 8

Dani Rodrik and Arvind Subramanian

THE PRIMACY OF INSTITUTIONS (and what this does and does not mean)

EXPLAINING THE HUGE DIFFERENCE in average incomes between the world's richest and poorest nations is one of the most fundamental issues in development economics. How did this vast gulf emerge, and can anything be done to reduce it?

To answer these questions, we can seek guidance from three strands of thought. First, there is a long and distinguished line of theorizing that assigns a preeminent role to *geography*. Geography is the key determinant of climate and of natural resource endowments, and it can also play a fundamental role in the disease burden, transport costs, and extent of diffusion of technology from more advanced areas that societies experience. It therefore exerts a strong influence on agricultural productivity and the quality of human resources. Recent writings by Jared Diamond and Jeffrey Sachs [Chapter 9 in this Reader] are among the more notable works in this tradition.

A second view emphasizes the role of international trade as a driver of productivity change and income growth. We call this the *integration* view because it gives participation in the larger global economy – and impediments to participation – a starring role in fostering economic convergence between rich and poor regions of the world. The globalization debate, of course, is to a large extent about the merits of this integration view.

Finally, a third view centers on *institutions* – in particular, the role of property rights and the rule of law. In this view, what matters are the rules of the game in a society, as defined by prevailing explicit and implicit behavioral norms and their ability to create appropriate incentives for desirable economic behavior. This view, associated perhaps most strongly with Nobel Prize winner Douglass North, has recently been the subject of a number of econometric studies, in particular by Daron Acemoglu [Chapter 7 in this Reader], Simon Johnson, and James Robinson.

The idea that one, or even all, of the above deep determinants can adequately explain the large variations in income levels between countries may seem, on the face of it, preposterous. But economists like parsimony, and we were keen to see how these theories

Chapter 9

Jeffrey D. Sachs

INSTITUTIONS MATTER, BUT NOT FOR EVERYTHING

The role of geography and resource endowments in development shouldn't be underestimated

THE DEBATE OVER THE ROLE of institutions in economic development has become dangerously simplified. The vague concept of "institutions" has become, almost tautologically, the intermediate target for all efforts to improve an economy. If an economy is malfunctioning, the reasoning goes, something must be wrong with its institutions. In fact, recent papers have argued that institutions explain nearly everything about a country's level of economic development and that resource constraints, physical geography, economic policies, geopolitics, and other aspects of internal social structure, such as gender roles and inequalities between ethnic groups, have little or no effect. These papers have been written by such respected economists as Daron Acemoglu, Simon Johnson, and James Robinson; Dani Rodrik, Arvind Subramanian, and Francesco Trebbi; and William Easterly and Ross Levine.

Indeed, a single-factor explanation of something as important as economic development can be alluring, and the institutions-only argument has special allure for two additional reasons. First, it attributes high income levels in the United States, Europe, and Japan to allegedly superior social institutions; it even asserts that when incomes rise in other regions, they do so mainly because of the Western messages of freedom, property rights, and markets carried there by intrepid missionaries intent on economic development. Second, according to the argument, the rich world has little, if any, financial responsibility for the poor because development failures are the result of institutional failures and not of a lack of resources.

The problem is that the evidence simply does not support those conclusions. Institutions may matter, but they don't matter exclusively. The barriers to economic development in the poorest countries today are far more complex than institutional shortcomings. Rather than focus on improving institutions in sub-Saharan Africa, it would

be wise to devote more effort to fighting AIDS, tuberculosis, and malaria; addressing the depletion of soil nutrients; and building more roads to connect remote populations to regional markets and coastal ports. In other words, sub-Saharan Africa and other regions struggling today for improved economic development require much more than lectures about good governance and institutions. They require direct interventions, backed by expanded donor assistance, to address disease, geographical isolation, low technological productivity, and resource limitations that trap them in poverty. Good governance and sound institutions would, no doubt, make such interventions more effective.

When economic growth fails

When Adam Smith, our profession's original and wisest champion of sound economic institutions, turned his eye to the poorest parts of the world in 1776, he did not so much as mention institutions in explaining their woes. It is worth quoting at length from Smith's *Wealth of Nations* on the plight of sub-Saharan Africa and central Asia, which remain the world's most troubled development hot spots:

> All the inland parts of Africa, and all that part of Asia which lies any considerable way north of the Euxine and Caspian seas, the ancient Scythia, the modern Tartary and Siberia, seem in all ages of the world to have been in the same barbarous and uncivilised state in which we find them at present. The Sea of Tartary is the frozen ocean which admits of no navigation, and though some of the greatest rivers in the world run through that country, they are at too great a distance from one another to carry commerce and communication through the greater part of it. There are in Africa none of those great inlets, such as the Baltic and Adriatic seas in Europe, the Mediterranean and Euxine seas in both Europe and Asia, and the gulfs of Arabia, Persia, India, Bengal, and Siam, in Asia, to carry maritime commerce into the interior parts of that great continent: and the great rivers of Africa are at too great a distance from one another to give occasion to any considerable inland navigation. (Book I, Chapter III)

Smith's point is that Africa and central Asia could not effectively participate in international trade because transport costs were simply too high. And, without international trade, both regions were condemned to small internal markets, an inefficient division of labor, and continued poverty. These disadvantages of the hinterland exist to this day.

Smith couldn't know the half of it. The problems of African isolation went far beyond mere transport costs. Characterized by the most adverse malaria ecology in the world, Africa was as effectively cut off from global trade and investment by that killer disease. Although the disease ecology of malaria was not understood properly until two centuries after Adam Smith, what was known demonstrated that Africa's suffering was unique. It had a climate conducive to year-round transmission of malaria and was home to a species of mosquito ideally suited to transmitting malaria from person to person. When Acemoglu, Johnson, and Robinson find that the high mortality rates of British soldiers around 1820 in various parts of the world correlate well with the low levels of GNP per capita in the 1990s, they are discovering the pernicious effects of malaria in blocking long-term economic development.

The ability of a disease to cut off economic development may seem surprising to some but reflects a lack of understanding of how disease can affect economic performance. Thus, in writing that malaria has a limited impact in sub-Saharan Africa because most adults have some acquired immunity, Acemoglu, Johnson, and Robinson completely neglect the fact that the disease dramatically lowers the returns on foreign investments and raises the transaction costs of international trade, migration, and tourism in malarial regions. This is like claiming that the effects of the recent SARS (Severe Acute Respiratory Syndrome) outbreak in Hong Kong SAR can be measured by the number of deaths so far attributable to the disease rather than by the severe disruption in travel to and from Asia.

In an environment in which capital and people can move around with relative ease, the disadvantages of adverse geography – physical isolation, endemic disease, or other local problems (such as poor soil fertility) – are magnified. It is probably true that when human capital is high enough in any location, physical capital will flow in as a complementary factor of production. Skilled workers can sell their outputs to world markets almost anywhere, over the Internet or by plane transport. Landlocked and at a high altitude, Denver can still serve as a high-tech hub of tourism, trade, and information technology. But when countries that are remote or have other problems related to their geography also have few skilled workers, these workers are much more likely to emigrate than to attract physical capital into the country. This is true even of geographically remote regions within countries. For example, China is having great difficulty attracting investments into its western provinces and is instead facing a massive shift of labor, including the west's few skilled workers, to the eastern and coastal provinces.

Recent history, then, confirms Smith's remarkable insights. Good institutions certainly matter, and bad institutions can sound the death knell of development even in favorable environments. But poor physical endowments may also hamper development. During the globalization of the past 20 years, economic performance has diverged markedly in the developing world, with countries falling into three broadly identifiable categories. First are the countries, and regions within countries, in which institutions, policies, and geography are all reasonably favorable. The coastal regions of east Asia (coastal China and essentially all of Korea, Taiwan Province of China, Hong Kong SAR, Singapore, Thailand, Malaysia, and Indonesia) have this beneficent combination and, as a result, have all become closely integrated with global production systems and benefited from large inflows of foreign capital.

Second are the regions that are relatively well endowed geographically but, for historical reasons, have had poor governance and institutions. These include the central European states, whose proximity to Western Europe brought them little benefit during the socialist regime. For such countries, institutional reforms are paramount. And, finally, there are impoverished regions with an unfavorable geography, such as most of sub-Saharan Africa, central Asia, large parts of the Andean region, and the highlands of Central America, where globalization has not succeeded in raising living standards and may, indeed, have accelerated the brain drain and capital outflows from the region. The countries that have experienced the severest economic failures in the recent past have all been characterized by initial low levels of income and small populations (and hence small internal markets) that live far from coasts and are burdened by disease, especially AIDS, tuberculosis, and malaria. These populations have essentially been trapped in poverty because of their inability to meet the market test for attracting private capital inflows.

When institutions *and* geography matter

It is a common mistake to believe – and a weak argument to make – that geography equals determinism. Even if good health is important to development, not all malarial regions are condemned to poverty. Rather, special investments are needed to fight malaria. Landlocked regions may be burdened by high transport costs but are not necessarily condemned to poverty. Rather, special investments in roads, communications, rail, and other transport and communications facilities are even more important in those regions than elsewhere. Such regions may also require special help from the outside world to initiate self-sustaining growth.

A poor coastal region near a natural harbor may be able to initiate long-term growth precisely because few financial resources are needed to build roads and port facilities to get started. An equally poor landlocked region, however, may be stuck in poverty in the absence of outside help. A major project to construct roads and a port would most likely exceed local financing possibilities and may well have a rate of return far below the world market cost of capital. The market may be right: it is unlikely to pay a market return to develop the hinterland without some kind of subsidy from the rest of the world. Nor will institutional reforms alone get the goods to market.

In the short term, only three alternatives may exist for an isolated region: continued impoverishment of its population; migration of the population from the interior to the coast; or sufficient foreign assistance to build the infrastructure needed to link the region profitably with world markets. Migration would be the purest free market approach, yet the international system denies that option on a systematic basis; migration is systemically feasible only within countries. When populations do migrate from the hinterlands, the host country often experiences a political upheaval. The large migration from Burkina Faso to Côte d'Ivoire was one trigger of recent ethnic riots and civil violence.

A fourth and longer-term strategy that merits consideration is regional integration: a breaking down of artificial political barriers that limit the size of markets and condemn isolated countries to relative poverty. In this regard, the recent initiative to strengthen subregional and regional cooperation in Africa should certainly be supported. Yet, given political realities, this process will be too slow, by itself, to overcome the crisis of the poorest inland regions.

A good test of successful development strategy in these geographically disadvantaged regions is whether development efforts succeed in attracting new capital inflows. The structural adjustment era in sub-Saharan Africa, for example, was very disappointing in this dimension. Although the region focused on economic reforms for nearly two decades, it attracted very little foreign (or even domestic) investment, and what it did attract largely benefited the primary commodity sectors. Indeed, these economies remained almost completely dependent on a few primary commodity exports. The reform efforts did not solve the underlying fundamental problems of disease, geographical isolation, and poor infrastructure. The countries, unattractive to potential investors, could not break free from the poverty trap, and market-based infrastructure projects could not make up the difference.

Helping the poorest regions

Development thinking and policy must return to the basics: both institutions and resource endowments are critical, not just one or the other. That point was clear enough to Adam Smith but has been forgotten somewhere along the way. A crucial corollary is that poverty traps are real: countries can be too poor to find their own way out of poverty. That is, some locales are not favorable enough to attract investors under current technological conditions and need international help in even greater amounts than have been made available to them in recent decades.

An appropriate starting point for the international community would be to set actual developmental goals for such regions rather than "make do" with whatever economic results emerge. The best standards, by far, would be the Millennium Development Goals, derived from the international commitments to poverty alleviation adopted by all countries of the world at the UN Millennium Assembly of September 2000. The goals call for halving the 1990 rates of poverty and hunger by the year 2015 and reducing child mortality rates by two-thirds. Dozens of the poorest countries – those trapped in poverty – are too far off track to achieve these goals. Fortunately, at last year's UN Financing for Development Conference held in Monterrey, Mexico, and at the World Summit on Sustainable Development held in Johannesburg, South Africa, the industrial world reiterated its commitment to help those countries by increasing debt relief and official development assistance, including concrete steps toward the international target of 0.7 percent of donor GNP. The extra $125 billion a year that would become available if official development assistance were raised from the current 0.2 percent of GNP to 0.7 percent of GNP should easily be enough to enable all well-governed poor countries to achieve the Millennium Development Goals. Like official development assistance, debt-relief mechanisms have been wholly inadequate to date.

Armed with these goals and assurances of increased donor assistance, the international community, both donors and recipients, should be able to identify, for each country and in much greater detail than in the recent past, those obstacles – whether institutional, geographical, or other (including barriers to trade in the rich countries) – that are truly impeding economic development. For each of the Millennium Development Goals, detailed interventions – including their costs, organization, delivery mechanisms, and monitoring – can be assessed and agreed upon by stakeholders and donors. By freeing our thinking from one-factor explanations and understanding that poverty may have as much to do with malaria as with the exchange rate, we will become much more creative and expansive in our approach to the poorest countries. And, with this broader view, the international institutions can also be much more successful than past generations in helping to free these countries from their economic suffering.

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REVIEW AND DISCUSSION QUESTIONS

1. In what ways, according to Sachs, do geographical characteristics help explain poverty in sub-Saharan Africa?
2. How does the experience of Denver, Colorado, help us understand what might allow developing countries to overcome geographical disadvantages? Explain.
3. Sachs believes that geography plays a key role in determining development, but he also believes that geographically disadvantaged countries are not doomed to poverty. What does it take, then, for such countries to develop?
4. Why does Sachs believe that economic development in geographically disadvantaged countries requires aid from the rich world?
5. Do you agree with Sachs's recommendations for how to help the poorest countries develop? Why or why not? Explain.

The more general conclusion is that the advanced Western countries would contribute more to the welfare of poor nations by exporting their economic systems, notably property rights and free markets, rather than their political systems, which typically developed after reasonable standards of living had been attained. If economic freedom can be established in a poor country, then growth would be encouraged, and the country would tend eventually to become more democratic on its own. Thus, in the long run, the propagation of Western-style economic systems would also be the effective way to expand democracy in the world.

[. . .]

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REVIEW AND DISCUSSION QUESTIONS

1 Why does Barro argue that "theoretically, the effect of more democracy on growth is ambiguous"? Where does the ambiguity come from?
2 What are some of the variables that are associated with faster economic growth according to the evidence reviewed by Barro?
3 Barro finds evidence that there may be a "nonlinear relation" between democracy and growth. Explain what that means and how Barro interprets this evidence.
4 According to the author, in what ways do income levels in a certain country affect the likelihood that democracy will prevail and be sustained over time?
5 What is Barro's recommendation for how rich Western countries can best help poor countries develop? Do you agree with this recommendation? Why or why not?

Chapter 11

Hernando de Soto

THE MYSTERY OF CAPITAL

Why has the genesis of capital become such a mystery? And why have the rich nations of the world not explained to other nations how indispensable a formal property system is to capital formation?

WALK DOWN MOST ROADS in the Middle East, the former Soviet Union, or Latin America, and you will see many things: houses used for shelter; parcels of land being tilled, sowed, and harvested; merchandise being bought and sold. Assets in developing and former communist countries primarily serve these immediate physical purposes. In the West, however, the same assets also lead a parallel life as capital outside the physical world. They can be used to put in motion more production by securing the interests of other parties as "collateral" for a mortgage, for example, or by assuring the supply of other forms of credit and public utilities.

Why can't buildings and land elsewhere in the world also lead this parallel life? Why can't the enormous resources in developing and former communist countries, which my colleagues at the Institute for Liberty and Democracy (Lima) and I estimate at $9.3 trillion of dead capital, produce value beyond their "natural" state? My reply is, dead capital exists because we have forgotten (or perhaps never realized) that converting a physical asset to generate capital – using your house to borrow money to finance an enterprise, for example – requires a very complex process. It is not unlike the process that Albert Einstein taught us whereby a single brick can be made to release a huge amount of energy in the form of an atomic explosion. By analogy, capital is the result of discovering and unleashing potential energy from the trillions of bricks that the poor have accumulated in their buildings.

Clues from the past

To unravel the mystery of capital, we have to go back to the seminal meaning of the word. In medieval Latin, "capital" appears to have denoted head of cattle or other livestock, which have always been important sources of wealth beyond the basic meat, milk, hides, wool, and fuel they provide. Livestock can also reproduce themselves. Thus, the term "capital" begins to do two jobs simultaneously, capturing the physical dimension of assets (livestock) as well as their potential to generate surplus value. From the barnyard, it was only a short step to the desks of the inventors of economics, who generally defined "capital" as that part of a country's assets that initiates surplus production and increases productivity.

Great classical economists such as Adam Smith and, later, Karl Marx believed that capital was the engine that powered the market economy. In *The Wealth of Nations*, Smith emphasized one point that is at the very heart of the mystery we are trying to solve: for accumulated assets to become active capital and put additional production in motion, they must be *fixed and realized in some particular subject* "which lasts for some time at least after that labour is past. It is, as it were, a certain quantity of labour stocked and stored up to be employed, if necessary, upon some other occasion." What I take from Smith is that capital is not the accumulated stock of assets but the *potential* it holds to deploy new production. This potential is, of course, abstract. It must be processed and fixed into a tangible form before we can release it – just like the potential nuclear energy in Einstein's brick.

This essential meaning of capital has been lost to history. Capital is now confused with money, which is only one of the many forms in which it travels. It is always easier to remember a difficult concept in one of its tangible manifestations than in its essence. The mind wraps itself around "money" more easily than "capital." But it is a mistake to assume that money is what finally fixes capital. Money facilitates transactions, allowing us to buy and sell things, but it is not itself the progenitor of additional production.

Potential energy in assets

What is it that fixes the potential of an asset so that it can put additional production into motion? What detaches value from a simple house and fixes it in a way that allows us to realize it as capital?

We can begin to find an answer by using our energy analogy. Consider a mountain lake. We can think about this lake in its immediate physical context and see some primary uses for it, such as canoeing and fishing. But when we think about this same lake as an engineer would by focusing on its capacity to generate electrical energy, by means of a hydroelectric plant, as an additional value beyond the lake's natural state as a body of water, we suddenly see the potential created by the lake's elevated position. The challenge for the engineer is finding out how he can create a *process* that allows him to convert and fix this potential into a form that can be used to do additional work.

Capital, like energy, is a dormant value. Bringing it to life requires us to go beyond *looking* at our assets as they are to actively *thinking* about them as they could be. It requires a process for fixing an asset's economic potential into a form that can be used to initiate additional production.

Although the process that converts the potential energy in the water into electricity is well known, the one that gives assets the form required to put in motion more production is not known. This is so because that key process was not deliberately set up to create capital but for the more mundane purpose of protecting property ownership. As the property systems of Western nations grew, they developed, imperceptibly, a variety of mechanisms that gradually combined into a process that churned out capital as never before.

Hidden conversion process of the West

In the West, this formal property system begins to process assets into capital by describing and organizing the most economically and socially useful aspects about assets, preserving this information in a recording system – as insertions in a written ledger or a blip on a computer disk – and then embodying it in a title. A set of detailed and precise legal rules governs this entire process. Formal property records and titles thus represent our shared concept of what is economically meaningful about any asset. They capture and organize all the relevant information required to conceptualize the potential value of an asset and so allow us to control it.

Any asset whose economic and social aspects are not fixed in a formal property system is extremely hard to move in the market. How can the huge amounts of assets changing hands in a modern market economy be controlled, if not through a formal property process? Without such a system, any trade of an asset, say a piece of real estate, requires an enormous effort just to determine the basics of the transaction: Does the seller own the real estate and have the right to transfer it? Can he pledge it? Will the new owner be accepted as such by those who enforce property rights? What are the effective means to exclude other claimants? This is why the exchange of most assets outside the West is restricted to local circles of trading partners.

Developing and former communist countries' principal problem is clearly not the lack of entrepreneurship: the poor have accumulated trillions of dollars of real estate during the past forty years. What the poor lack is easy access to the property mechanisms that could legally fix the economic potential of their assets so that they could be used to produce, secure, or guarantee greater value in the expanded market.

Why has the genesis of capital become such a mystery? Why have the rich nations of the world, so quick with their economic advice, not explained how indispensable formal property is to capital formation? The answer is that the process within the formal property system that breaks down assets into capital is extremely difficult to visualize. It is hidden in thousands of pieces of legislation, statutes, regulations, and institutions that govern the system. Anyone trapped in such a legal morass would be hard-pressed to figure out how the system actually works. The only way to see it is from outside the system – from the extralegal sector – which is where my colleagues and I do most of our research.

The formal property systems of the West produce six effects that allow their citizens to generate capital.

(1) Fixing the economic potential of assets. Capital is born by representing in writing – in a title, a security, a contract, and other such records – the most economically and socially useful qualities *about* the asset as opposed to the visually more striking aspects of the asset. This is where potential value is first described and registered. The moment you focus your

attention on the title of a house, for example, and not on the house itself, you have automatically stepped from the material world into the conceptual universe where capital lives.

The proof that formal property is pure concept comes when a house changes hands: nothing physically changes. Property is not the house itself but an economic concept *about* the house, embodied in a legal representation that describes not its physical qualities but rather economically and socially meaningful qualities we humans have attributed to the house (such as the ability to use it for a variety of purposes – for example, to generate funds for investment in a business without having to sell the house – by providing security to lenders in the form of liens, mortgages, easements, or other covenants). In advanced nations, this formal property representation functions as the means to secure the interests of other parties and to create accountability by providing all the information, references, rules, and enforcement mechanisms required to do so.

Legal property thus gave the West the tools to produce surplus value over and above its physical assets. Whether anyone intended it or not, the legal property system became the staircase that took these nations from the universe of assets in their natural state to the conceptual universe of capital where assets can be viewed in their full productive potential.

(2) Integrating dispersed information into one system. The reason capitalism has triumphed in the West and sputtered in the rest of the world is because most of the assets in Western nations have been integrated into one formal representational system. This integration did not happen casually. Over decades in the nineteenth century, politicians, legislators, and judges pulled together the scattered facts and rules that had governed property throughout cities, villages, buildings, and farms and integrated them into one system. This "pulling together" of property representations, a revolutionary moment in the history of developed nations, deposited all the information and rules governing the accumulated wealth of their citizens into one knowledge base. Before that moment, information about assets was far less accessible. Every farm or settlement recorded its assets and the rules governing them in rudimentary ledgers, symbols, or oral testimony. But the information was atomized, dispersed, and not available to any one agent at any given moment.

Developing and former communist nations have not created unified formal property systems. In all of these countries I have studied, I have never found just one legal system but instead dozens and hundreds, managed by all sorts of organizations, some legal, others extralegal, ranging from small entrepreneurial groups to housing organizations. Consequently, what people in those countries can do with their property is limited to the imagination of the owners and their acquaintances. In Western countries, where property information is standardized and universally available, what owners can do with their assets benefits from the collective imagination of a larger network of people.

It may surprise the Western reader that most of the world's nations have yet to integrate extralegal property agreements into one formal legal system. For Westerners today, there supposedly is only one law – the official one. Diverse informal property arrangements, however, were once the norm in every nation – the West's reliance on integrated property systems is a phenomenon of at most the last two hundred years. The reason it is so hard to follow the history of the integration of widespread property systems is that the process took place over a very long time.

(3) Making people accountable. The integration of all property systems under one formal property law shifted the legitimacy of the rights of owners from the political context of local communities to the impersonal context of law. Releasing owners from restrictive local arrangements and bringing them into a more integrated legal system facilitated their accountability.

By transforming people with real property interests into accountable individuals, formal property created individuals from masses. People no longer needed to rely on neighborhood relationships or make local arrangements to protect their rights to assets. They were thus freed to explore how to generate surplus value from their own assets. But there was a price to pay: once inside a formal property system, owners lost their anonymity while their individual accountability was reinforced. People who do not pay for goods or services they have consumed can be identified, charged interest penalties, fined, and embargoed, and can have their credit ratings downgraded. Authorities are able to learn about legal infractions and dishonored contracts; they can suspend services, place liens against property, and withdraw some or all of the privileges of legal property.

Respect in Western nations for property and transactions is hardly encoded in their citizens' DNA; it is rather the result of having enforceable formal property systems. Formal property's role in protecting not only ownership but also the security of transactions strongly encourages citizens in advanced countries to respect titles, honor contracts, and obey the law. Legal property thus invites commitment.

The lack of legal property thus explains why citizens in developing and former communist nations cannot make profitable contracts with strangers and cannot get credit, insurance, or utilities services: they have no property to lose. Because they have no legal property, they are taken seriously as contracting parties only by their immediate family and neighbors. People with nothing to lose are trapped in the grubby basement of the precapitalist world.

(4) Making assets fungible. One of the most important things a formal property system does is transform assets from a less accessible condition to a more accessible condition, so that they can do additional work. Unlike physical assets, representations of assets are easily combined, divided, mobilized, and used to stimulate business deals. By uncoupling the economic features of an asset from its rigid, physical state, a representation makes the asset "fungible" -- able to be fashioned to suit practically any transaction.

By describing all assets in standard categories, an integrated formal property system enables the comparison of two architecturally different buildings constructed for the same purpose. This allows one to discriminate quickly and inexpensively between similarities and differences in assets without having to deal with each asset as if it were unique.

Standard property descriptions in the West are also written to facilitate the combination of assets. Formal property rules require assets to be described and characterized in a way that not only outlines their singularities but also points out their similarities to other assets, thus making potential combinations more obvious. Through the use of standardized records, one can determine how to exploit a particular asset most profitably.

Representations also enable one to divide assets without touching them. Whereas an asset such as a factory may be an indivisible unit in the real world, in the conceptual universe of formal property representation it can be subdivided into any number of portions. Citizens of advanced nations are thus able to split most of their assets into shares, each of which can be owned by different persons, with different rights, to carry out different functions.

Formal property representations can also serve as movable stand-ins for physical assets, enabling owners and entrepreneurs to simulate hypothetical situations in order to explore other profitable uses of their assets. In addition, all standard formal property documents are crafted in such a way as to facilitate the easy measurement of an asset's attributes. By providing standards, Western formal property systems have significantly reduced the transaction costs of mobilizing and using assets.

(5) Networking people. By making assets fungible, by attaching owners to assets, assets to addresses, and ownership to enforcement, and by making information on the history of assets and owners easily accessible, formal property systems converted the citizens of the West into a network of individually identifiable and accountable business agents. The formal property process created a whole infrastructure of connecting devices that, like a railway switchyard, allowed the assets (trains) to run safely between people (stations). Formal property's contribution to mankind is not the protection of ownership: squatters, housing organizations, mafias, and even primitive tribes manage to protect their assets quite efficiently. The property system's real breakthrough is that it radically improved the flow of communications about assets and their potential. It also enhanced the status of their owners.

Western legal property also provides businesses with information about assets and their owners, verifiable addresses, and objective records of property values, all of which lead to credit records. This information and the existence of integrated law make risk more manageable by spreading it through insurance-type devices as well as by pooling property to secure debts.

Few seem to have noticed that the legal property system of an advanced nation is the center of a complex web of connections that equips ordinary citizens to form ties with both the government and the private sector, and so to obtain additional goods and services. Without the tools of formal property, it is hard to see how assets could be used for everything they accomplish in the West.

(6) Protecting transactions. One important reason why the Western formal property system works like a network is that all the property records (titles, deeds, securities, and contracts that describe the economically significant aspects of assets) are continually tracked and protected as they travel through time and space. Public agencies are the stewards of an advanced nation's representations. They administer the files that contain all the economically useful descriptions of assets, whether land, buildings, chattels, ships, industries, mines, or airplanes. These files will alert anyone eager to use an asset about things that may restrict or enhance its utilization, such as encumbrances, easements, leases, arrears, bankruptcies, or mortgages. In addition to public record-keeping systems, many other private services (escrow and closing organizations, appraisers, etc.) have evolved to assist parties in fixing, moving, and tracking representations so they can easily and securely produce surplus value.

Although they are established to protect the security of both ownership and transactions, it is obvious that western systems emphasize the latter. Security is principally focused on producing trust in transactions so that people can more easily make their assets lead a parallel life as capital. The Western emphasis on the security of transactions allows citizens to move large amounts of assets with very few transactions. In most developing countries, by contrast, the law and official agencies are trapped by early colonial and Roman law, which tilt toward protecting ownership. They have become the custodians of the wishes of the dead.

Conclusion

Much of the marginalization of the poor in developing and former communist nations comes from their inability to benefit from the six effects that formal property provides. The challenge these countries face is not whether they should produce or receive more money but whether they can understand the legal institutions and summon the political will necessary to build a property system that is easily accessible to the poor.

The French historian Fernand Braudel found it a great mystery that at the inception of Western capitalism, it served only a privileged few, just as it does elsewhere in the world today:

> The key problem is to find out why that sector of society of the past, which I would not hesitate to call capitalist, should have lived as if in a bell jar, cut off from the rest; why was it not able to expand and conquer the whole of society? . . . [Why was it that] a significant rate of capital formation was possible only in certain sectors and not in the whole market economy of the time?

I believe the answer to Braudel's question lies in restricted access to formal property, both in the West's past and in developing and former communist countries today. Local and foreign investors do have capital; their assets are more or less integrated, fungible, networked, and protected by formal property systems. But they are only a tiny minority – those who can afford the expert lawyers, insider connections, and patience required to navigate the red tape of their property systems. The great majority of people, who cannot get the fruits of their labor represented by the formal property system, live outside Braudel's bell jar.

The bell jar makes capitalism a private club, open only to a privileged few, and enrages the billions standing outside looking in. This capitalist apartheid will inevitably continue until we all come to terms with the critical flaw in many countries' legal and political systems that prevents the majority from entering the formal property system.

The time is right to find out why most countries have not been able to create open formal property systems. This is the moment, as Third World and former communist nations are living through their most ambitious attempts to implement capitalist systems, to lift the bell jar.

Note

This article is derived from Chapter 3 of the author's book, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (New York: Basic Books and London: Bantam Press/Random House, 2000).

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REVIEW AND DISCUSSION QUESTIONS

1 How is "capital" different from "money" according to de Soto?
2 What role do titles and formal property records play in turning assets into capital?
3 How does a property system allow assets to "do additional work" according to the author?
4 In what ways are titles "connecting devices" that allow people to network and engage in business transactions?
5 According to de Soto, what does it take for a developing country to put into place a system of titles and property records?
6 The author argues that the lack of a formal property system is the key obstacle to economic development in poor countries. Do you agree with this view? Why or why not?

Chapter 12

Timur Kuran

WHY THE MIDDLE EAST IS ECONOMICALLY UNDERDEVELOPED

Historical mechanisms of institutional stagnation

A MILLENNIUM AGO, AROUND ROUGHLY the tenth century, the Middle East was an economically advanced region of the world, as measured by standard of living, technology, agricultural productivity, literacy or institutional creativity. Only China might have been even more developed. Subsequently, however, the Middle East failed to match the institutional transformation through which western Europe vastly increased its capacity to pool resources, coordinate productive activities and conduct exchanges. True, the institutional endowment of the Middle East continued to evolve. But in certain areas central to economic modernization change was minimal, at least in relation to the structural transformation of the West and, for that matter, the Middle East's own evolution during the early Islamic centuries. In eighteenth-century Cairo, credit practices hardly differed from those of the tenth century. Likewise, investors and traders were using enterprise forms essentially identical to those prevalent eight centuries earlier. By the nineteenth century, the entire Middle East was clearly "underdeveloped" relative to western Europe and its offshoots in the new world; and by the twenty-first century, it had fallen markedly behind parts of the Far East as well.

This essay offers reasons why the Middle East became underdeveloped. In particular, it points to certain Middle Eastern institutions, including ones rooted in the region's dominant religion, as past and in some cases also continuing obstacles to economic development. The institutions that generated evolutionary bottlenecks include: 1) the Islamic law of inheritance, which inhibited capital accumulation; 2) the strict individualism of Islamic law and its lack of a concept of corporation, which hindered organizational development and contributed to keeping civil society weak; and 3) the waqf, Islam's distinct form of trust, which locked vast resources into organizations likely to become dysfunctional over time. These institutions did not pose economic disadvantages at the time of their emergence. Nor did they ever cause an absolute decline in economic activity. They turned into handicaps by perpetuating themselves during the long period when the West developed the institutions of the modern economy.

Nancy Birdsall

INEQUALITY MATTERS

AFTER SPENDING THE LATE 1980s working on Latin America for the World Bank, I became involved in a major study of East Asia's postwar growth. The contrast between the two regions was notable: Latin America was stagnating while East Asian economies were growing rapidly, with tremendously high rates of private and public investment and savings. The emphasis on exports and the pressure to compete in global markets seemed to have worked.

The impressive growth in Taiwan, Korea, Hong Kong, and Singapore, and later in Malaysia, Indonesia, and Thailand, reflected and was reinforced by equally impressive changes in people's behavior and lives: unprecedented gains in small farmers' productivity, high demand for schooling (including schooling for girls), and declines in fertility far steeper and at lower income levels than in industrialized economies. These changes contributed to income gains for households that, in a virtuous circle over many years, fueled further economic growth, demand for education, productivity increases, and declines in fertility. I was familiar with many of the household-level changes through my earlier research in the postwar developing world. What particularly surprised me was that the rapid growth had not led to higher inequality.

Textbook economics describes a tradeoff between growth and equality. Increasing inequality (as in China today) seems to be a natural outcome of the early stages of development, for example as the shift from low-productivity subsistence agriculture to high-productivity manufacturing brings income gains for some people but not for others. In addition, inequality is likely to enhance growth by concentrating income among the rich, who save and invest more. Moreover, inequality reflects a system that rewards hard work, innovation, and productive risk-taking – which ultimately ensures higher output and productivity, and thus higher average income and rates of growth. These inequality-related incentives are the backbone of the argument against tax-financed redistribution: such transfers undermine individual responsibility and the work ethic and thus slow growth.

For economists, then, inequality has typically represented at worst a necessary evil and at best a reasonable price to pay for growth. So, for the most part, they have not been concerned with the apparent trend of rising inequality. Development economists in particular have focused instead on the reduction of absolute poverty. But in East Asia the textbook story seemed altogether wrong. One key to East Asia's success seemed to be its low initial levels of inequality, which were associated with the legacy of postwar redistribution of farm land in the northern economies and with subsequent high public investments in education, agricultural extension, and other programs in rural areas.

In 1993 I left the World Bank to become the executive vice president at the Inter-American Development Bank. By then I was persuaded that Latin America's high inequality was an economic problem, slowing its growth, as well as a social problem. I advocated more research on the issue. By that time – soon after the fall of the Berlin Wall had liberated the mainstream from the taboo of Marxian thought – academic economists were also beginning to study inequality as a possible cause of low growth, and thus as a phenomenon that mattered, at least for understanding growth itself.

Subsequent work by many economists has strengthened my conviction that while inequality may be constructive in the rich countries – in the classic sense of motivating individuals to work hard, innovate, and take productive risks – in developing countries it is likely to be destructive. That is especially true in Latin America, where conventional measures of income inequality are high. It also may well apply in other parts of the developing world, where our conventional indicators are not so high but there are plentiful signs of other forms of inequality: injustice, indignity, and lack of equal opportunity.

Interesting.

Distinguishing between constructive and destructive inequality is useful. To clarify the distinction: inequality is constructive when it creates positive incentives at the micro level. Such inequality reflects differences in individuals' responses to equal opportunities and is consistent with efficient allocation of resources in an economy. In contrast, destructive inequality reflects privileges for the already rich and blocks potential for productive contributions of the less rich.

Inequality of income in an equal-opportunity society would be wholly constructive: there would be high lifetime mobility (up and down) and high intergenerational mobility; children's place in the distribution of lifetime income would be independent of their parents' place. (Income inequality in the United States is higher than in most countries of Western Europe. The perception of the United States as a highly mobile society compared to Western Europe is likely the result of its higher average income growth, which has lifted all boats.)

Since there are no international measures of relative opportunity or mobility, development economists who care about inequality have been measuring "money inequality" – inequality of income, consumption, and wealth. Assessing the effects of money inequality on growth within and across countries can provide a rough indicator of inequality of opportunity and limited social mobility in a particular setting. This brings us to the crux of why inequality can matter, especially in developing countries. Evidence over the last decade and a half suggests that it has a large destructive component: it is associated with unequal mobility and limits economic growth.

Why would this be the case? First, where markets are underdeveloped, inequality inhibits growth through market mechanisms. In developing countries, by definition, markets are relatively weak and governments are less effective in compensating for market failure. When creditworthy borrowers, for example, cannot borrow because they lack

collateral, then their lack of income or wealth limits their ability to invest productively – in their own farms, small businesses, and in the health and education of their children.

Governments can compensate for market failures; provision of public education is a classic example. But in developing countries, public systems of all kinds tend to be less adequately funded and are often poorly managed. That means that public policy is less likely to correct for the inherent inability of markets alone to compensate for differences across households in endowments of all kinds.

In fact, some of my own research in Latin America suggests that differences in social mobility across countries, controlling for other factors, are closely associated with differences in public spending on primary education and the depth of financial markets. (Ironically, policies ostensibly designed to address the latter problem and help the poor, such as repressed interest rates and directed credit programs, generally end up limiting access to credit in general, except for privileged insiders.)

Land inequality (and unequal access to education) when combined with poor markets for land and credit may also be destructive for growth itself, and especially for growth that benefits the poor. Some evidence suggests that large landowners captured most of the benefits of agricultural growth in Latin America in the 1970s and 1980s. In contrast, in Indonesia, where small farmers provide the bulk of agricultural production, agricultural productivity and growth were greater in that period, and were better for the rural poor.

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Secondly, where the institutions of government are weak to start with, inequality makes strengthening them harder, and in general of maintaining accountable government. That in turn makes it less likely that the government will provide adequate public services, thus reducing the economy's growth potential. If the rich fail to support public education, for example, favoring public policy that preserves privileges even at the cost of growth, inequality not only inhibits growth given government failure (as outlined above), but itself contributes to government failure. The problem is worse in countries with substantial poverty at the bottom and without a strong middle class to demand accountability from government.

Again Latin America and East Asia illustrate the point. In the 1990s in Latin America, with its high inequality, basic education systems were poor and the children of the rich attended private school. On average the children of the richest 20 percent of households in many Latin countries had about six more years of education by age 24 than the children of the poorest 20 percent; in countries of East Asia, some poorer than their counterparts in Latin America, the comparable gap was just four and a half years. Why the difference? In East Asia, public spending on basic education has been higher, school systems have been better run, and better access and more equal distribution of land have given more households the assets to send their children to school and the incentives to demand that their schooling be adequate.

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The difference between East Asia and Latin America in educational opportunities for the poor illustrates the apparent relationship between a high concentration of income in a society and access to education. The supply of publicly subsidized education is likely to be limited where the rich resist a large tax burden to finance services they can buy privately. Targeting services to the poor, an approach encouraged by the World Bank, can help reduce the fiscal burden of greater public spending, but it easily leads to a loss of political support from the working and middle classes. Without middle-class interest and pressure, the quality of schooling deteriorates, and the middle class resorts to private services. On the demand side, low public spending combined with pressure to maintain or expand enrollment leads to low-quality schools, reducing for poor families the economic returns of sending children to school who can otherwise help at home or by working. This may explain the high dropout rates throughout much of Latin America, even in the face of high returns on average to those who manage to complete secondary school.

In the case of the poor's extreme political weakness, the privileged can easily exercise sufficient political control – through contributions to political campaigns, access to the media, and even bribes and even extortion – to constitute what Charles Beitz called an "abridgement of liberty." When this kind of influence in turn affects job availability, workplace safety, or local environmental conditions, then large inequalities are having large political repercussions.

But there may be bad political outcomes even when the disadvantaged do have political voice. There are many examples of populist programs designed to attract working-class political support – for example in Garcia's Peru in the 1980s or Perón's Argentina – that hurt workers in the long run. Financed by unsustainable fiscal largesse, they brought the inflation or high interest rates that exacerbated inequality. (The rich can better protect themselves from inflation with indexed financial assets and by placing capital abroad; and from high interest rates by pressing for privileged access to credit.) Price controls imposed on food products hurt rural producers, or end with products disappearing from stores as they are hoarded and resold at prices out of reach of most consumers. A high minimum wage may make it harder for the unemployed to find work. Regulatory privileges, trade protection, and special access to cheap credit and foreign exchange – all bad economic policies – tend to increase the profits of a wealthy minority. Not all bad policy can be blamed on income inequality, but it would be foolish to ignore the risks of inequality to sound policy.

Finally, where social institutions are fragile, inequality discourages the civic and social life that undergirds the collective decision-making necessary to healthy, functioning societies. Robert Putnam defines the asset of social capital in terms of trusts, norms, and networks that can improve the efficiency of society, "facilitating coordinating actions." Social capital has economic value because it is likely to reduce the cost of transactions and contract enforcement and, as Dani Rodrik points out, reduce resistance of the losing groups to political compromises.

There is good evidence from microeconomic analyses that income inequality adversely affects some of the correlates of social capital. In Tanzania, informal insurance is higher in communities where income inequality is lower. Among sugar cooperatives in India, those in which land ownership is more unequal are less productive. Differences across countries in homicide rate are associated with differences in the income gap between the middle class and the rich.

In developing countries, inequality itself is not always so much the problem as is the interaction of inequality with other factors: weak markets or unaccountable or incompetent governments. Weak markets, weak governments, weak institutions – these are the very characteristics that define a country as developing. Reducing inequality might not in itself lead automatically to higher growth or better government or more stable and healthy societies. But development economists should take note: to ignore inequality altogether is to invite setbacks on the development path.

[. . .]

Now globalization is creating pressures that tend to increase inequality. We need to understand what those pressures are and how they operate as today's increasingly

integrated global economy raises the bar of competitiveness. How might they best be managed, within countries and at the global level, to avoid their potentially destructive effects on growth?

Proponents of globalization have hailed the rapid economic growth of China, India, and other large and poor countries of Asia. And indeed several decades of rapid growth in some poor countries has moved millions of people out of poverty, shifting a large enough portion of the world's people out of the poorest parts of the world income distribution so that inequality among individuals, regardless of country, has declined. But these successes do not mean, as the title of Thomas L. Friedman's best-selling book suggests, that the world is flat. Globalization is not leveling the global playing field for everyone. Between the average income of the richest countries – those of Europe, North America, and Australia – and the poorest – many in Africa – the gap is increasing. And within China, India and other fast-growing countries where inequality has not been high in the past, it is now rising. It also rose dramatically in most of Eastern Europe and the former Soviet Union in the 1990s, as minimal growth left the poor worse off than they were under communism. And it has remained high in Brazil, Mexico, Panama, and Peru, where there was modest growth.

In other developing countries, income inequality has not changed, and in a few – Bangladesh, Ghana, and the Philippines – it appears to have declined. So it would be an exaggeration to say that rising inequality within countries has been the norm. Nor does it make sense to condemn "globalization" because inequality is rising in countries like China and India. These may be cases of a constructive inequality that reflects new prosperity for some.

But in the case of the poorest countries, we need to explore whether the common assumption always holds: that the pressures of the global economy will enable them to benefit by exploiting the technologies others have developed.

We can start by looking at how the regular workings of the global economy affect inequality.

The market works: global markets reward productive assets. Globalization is shorthand for global capitalism and the extension of global markets. Markets that are bigger and deeper reward more efficiently those who already have productive assets – financial assets, land, physical assets, and perhaps most crucial in the technologically driven global economy, human capital. For countries, the key productive asset seems to be stable and sound institutions. Countries that are already ahead – with stable political systems, secure property rights, adequate banking supervision, reasonable public services, and so on – are better able to cope with market-driven changes in world prices.

Consider the plight of a large group of the poorest countries, including Bolivia and many countries in Africa. Highly dependent on primary commodity and natural resource exports in the early 1980s, their markets have been "open" for at least two decades, if openness is measured by their ratio of imports and exports to GDP. But unable to diversify into manufacturing (despite reducing their own import tariffs) they have been victims of the decline in the relative world prices of their commodity exports, and have, literally, been left behind. These countries have not been xenophobic or in any way closed to the global economy. But despite rising exports, tariff reductions, and, in most of them, economic and structural reforms, including greater fiscal and monetary discipline and the divestiture of unproductive state enterprises, they have been unable to increase their export income, have failed to attract foreign investment, and have grown little, if at all.

What many countries in sub-Saharan Africa – as well as Haiti, Nepal, and Nicaragua – have in common is a vicious circle of low or unstable export revenue, weak and sometimes predatory government, inability to cope with terrible disease burdens (the HIV/AIDS pandemic is only one recent and highly visible example), and failure to deliver to children basic education and other services critical to sustainable growth. Their governments have made, from time to time, fragile efforts to end corruption, to undertake economic reforms, and, more to the point, to enter global markets. But globalization has not worked for them – even those such as Nigeria and Ecuador that are rich in at least one asset, oil, but poor in institutions. In contrast, countries that have the "asset" of strong political and social institutions (Australia and Norway, for example, or among developing countries, Chile and Botswana) have benefited from entering global markets with their natural resources.

William Easterly argues that in the new global economy, we should not expect the convergence between rich and poor countries that conventional economic models based on differences in wealth and other traditional assets predict. He suggests instead that it is existing productivity differences across countries that matter. Productivity differences make "capital" and "skilled labor" economically scarce even in high-productivity settings where they are apparently plentiful, explaining why skilled people continue to move to those settings. This also explains why 80 percent of all foreign investment occurs among the industrialized countries (just 0.1 percent of all U.S. foreign investment went to sub-Saharan Africa last year). The productivity differences arise, presumably, because of differences in physical infrastructure and human capital, themselves a product of long-standing differences in social and political institutions.

The global market for skilled and talented people is a good example of the tendency of markets to benefit the stronger – individuals as well as countries. Advanced economies are now competing with each other in encouraging immigration of highly skilled workers from developing countries. Indian engineers can quadruple their earnings by moving from Kerala to the Silicon Valley, and Indian biochemists by moving from Delhi to Atlanta or Cambridge. More integrated markets thus increase inequality across countries, via emigration from smaller and poorer countries of highly skilled citizens, who naturally are inclined to move to settings where they can deploy their skills productively. For the individuals who emigrate, their mobility is a good thing, and what has been called a "brain drain" can generate offsetting remittances that raise welfare in the sending countries (as migrants send money home). Moreover, if the institutional and policy setting in sending countries improves, as it did in India recently, emigrants are likely to begin investing in their home country and returning permanently. At the same time, however, the ability to emigrate makes tougher the poorer countries' crucial tasks – building institutions and improving policies – if they lose their most talented citizens. (The annual cost to India of its brain drain to the United States is estimated at $2 billion, an amount equal to all the foreign aid it receives.)

Global markets similarly create new pressures for inequality within countries. Healthy global markets can generate unequal opportunities between different individuals. The relative return of a university education has been increasing for years everywhere, despite the fact that more and more people are going to university, including across the developing world. More integrated trade markets, capital flows, and global technology, including the Internet, are increasing the worldwide demand for skills more rapidly than the supply. Just about everywhere in the world, education is reinforcing initial advantages instead of compensating for initial handicaps among individuals.

Rising wage gaps in open and competitive markets may be a short-term price worth paying for sustainable growth. They create incentives for more people to acquire more education, in principle eventually reducing inequality. The same can be said for the development of institutions at the country level. Many poor countries have responded to global opportunities by strengthening the rule of law, building and strengthening democratic processes, and investing in public health and education. But just as poor families can benefit from public assistance to help them invest in their children's education, so poor countries can benefit from aid and the incentives of a level global playing field to help them build better institutions.

Even when participation in the global market brings growth, as it has in China and India, it is a mixed blessing, bringing political pressures for populist measures and, especially if growth falters, for protectionism. Even Europe and the United States are subject to those pressures – but with more resilient institutions and well-developed social insurance programs they can better afford temporary policy errors. The political risks are greater still when engagement in global markets fails to bring growth.

The market fails: in the global economy, failures hurt the weak most. Global markets are far from perfect. They fail in many domains. The classic example of a market failure is pollution: the polluter captures the benefits of polluting without paying the full costs. The United States, for example, the biggest global polluter per capita, is imposing costs not only on its own future citizens, but also on the children and grandchildren of the world's poor, whose countries have fewer resources to manage or mitigate the effects. Likewise in the case of global financial crises. The financial crises of the late 1990s that rocked Mexico, Thailand, Korea, Russia, Brazil, and Argentina resulted in part from policy errors in those countries. But a healthy portion can be blamed on panic in global markets of the kind that periodically plagues all financial markets. In East Asia many investors reacted by accumulating high reserves for insurance against future crises; the costs of maintaining high dollar reserves (given the low interest rates compared to potential returns) represent a perverse transfer from the developing world to the United States.

The volatility and financial risks that come with participation in global markets tend to increase inequality over the long run within countries. Analysis indicates that trade shocks hurt the bottom 20 percent of the income distribution disproportionately. The evidence is that volatility, whatever its source, is particularly bad for the poor. In Korea, Mexico, and Thailand, financial crises in the 1990s reduced the income shares of the bottom 80 percent of households. During the accompanying recession in Mexico in 1995, many children of the poor dropped out of school – and subsequent studies show that many never returned.

Global financial markets have not only brought instability and reduced growth to the emerging market economies; they have affected their capacity to develop and sustain the institutions and programs that would protect their poor. One culprit has probably been the premature opening of capital markets. In some emerging market economies, premature opening of the capital market – before adequate banking supervision and financial regulation were in place – brought pressures for increased inequality along with volatility, for at least two reasons. First, with global market players doubting the commitment of these countries' governments to fiscal rectitude they were forced to reestablish market confidence by adopting tight fiscal and monetary policy, when ideally in the face of recession they would have implemented macroeconomic measures to stimulate their economies. The austerity policies that the global capital market demands of emerging markets at the time of a shock are the opposite of what the industrial economies implement: for example, reduced interest rates, unemployment insurance, increased availability of food stamps, and public works employment – fundamental ingredients of a modern social contract. The resulting effects of unemployment and bankruptcy can be permanent for the poor, so repeated shocks constitute a structural factor in increasing inequality.

Second, the bank bailouts that followed crises generated high public debt (amounting to ten to 40 percent of annual GDP, compared to two to three percent due to banking crises in advanced economies on average). High public debt still keeps domestic interest rates high in some emerging market countries, stifling investment, growth, and job creation – all bad for the poor – and increases the pressure on those economies to generate primary fiscal surpluses, in the long run reducing their ability to finance sound broad-based investment in health and education – and their ability to spend more on the unemployment and safety-net programs that would protect the poor in bad times.

Global climate change and global financial crises both result from market failures. They are two examples of market failures that hurt poor countries and poor people more. In general, the ability to adjust to change, or to finance mitigation costs, is smaller for poorer countries, and within countries, for poorer people. So market failures tend to increase inequality.

Global rules and regimes tend to favor already rich countries and people. In the end, global markets tend to be disequalizing, because trade, intellectual property, and migration regimes naturally reflect the greater market power of the rich. The battle to reduce rich country agricultural subsidies and tariffs that discriminate against poor countries is a good example. Domestic politics in Europe, the United States, and Japan, as perverse as they are even for those countries themselves, matter more at the negotiating table than unequal opportunities for cotton farmers in West Africa.

As the design of multilateral rules favors the rich, so too does their implementation. In 2003 developing countries finally got clarity on their right to issue compulsory licenses to import and produce generic medicines during public-health emergencies. But the rules for exercising that right are complicated, and many countries eager to maintain or improve their access to the U.S. market for their own exports are acceding to WTO "plus" patent protection, in effect giving up those rights, in bilateral trade with the United States.

The cost and complexity alone of negotiation and dispute resolution processes in the WTO put poor and small countries with limited resources at a disadvantage. About one half of anti-dumping actions are initiated against developing-country producers, who account for eight percent of all exports. These create legal and other costs to current producers in developing countries, and are likely to chill new job-creating investment in sensitive sectors.

International migration is also governed by rules that clearly exacerbate inequality between the richest and poorest – countries and individuals. Permanent migration is small relative to the past because today higher-income countries restrict immigration. In the last 25 years, only two percent of the world's people have changed their permanent country residence, compared to ten percent in the 25 years before the First World War. Yet more movement, especially of less-skilled workers, would reduce world inequality considerably, as did the tremendous movements of Europeans to the Americas in the 19th century. But current policy encourages instead the movement of the highly skilled into the more advanced economies.

Economic power affects the rules and the conduct of those rules by international institutions other than the WTO. The International Monetary Fund is the global institution designed to help countries manage macroeconomic imbalances and minimize the risks of financial shocks. But in the 1990s, the IMF was more enthusiastic about developing countries' opening their capital accounts than subsequent evidence about the costs warranted. This is one example where the IMF and the World Bank have been insufficiently humble in their recipes, perhaps too heavily influenced by their more powerful members. Another is their indiscriminate support for adjustment programs that in some countries, though technically sound on paper, worsened the situation of the poor because transition costs were inadequately considered and safety net programs underfunded.

In advanced market economies there is a well-defined social contract that tempers the inequalities of income and opportunity that efficient markets naturally generate. Progressive tax systems provide for some redistribution, with the state financing at least minimal educational opportunities for all and some social and old-age insurance. Yet in developing countries, where the social contract is less well developed, the economic reforms that competitiveness in global markets require, and the risks to economic stability it brings, tend to exacerbate existing inequality, and in turn generate political pressure for populist redistribution. The political leadership must then manage a delicate balance between enacting the structural reforms that will generate growth and minimizing the short-term political risks they entail.

Politics is local, and the politics of inequality is doubly so. One lesson for the international community is to do no harm as leaders in developing countries cope with the difficult challenges that globalization presents. When donors condition their grants and loans on, for example, less corruption or more open trade regimes, they may complicate the situation – a health program may be cut because of corruption in the oil ministry, or unskilled jobs in local industry or farming may be lost after a reduction in import tariffs. Skepticism and humility about the timing and details of policy reforms pushed from the outside seems warranted.

And in terms of actual resource transfers, the international community needs something closer to a global social contract to address unequal endowments – to rapidly ramp up educational opportunities for the poor in developing countries, and to find ways to help societies build their own sound institutions. Spending by the rich world on the "global social contract," now reflected in the idea of the UN's Millennium Development Goals, is less than one percent of rich-country GDP. That is surprisingly low compared to the typical 20 percent spent on public transfers for education and social insurance within rich countries. The comparison is relevant: we now have a more and more integrated global economy – creating legitimate new demands for more shared prosperity.

The business of foreign aid needs to be reinvented if it is to become reasonably effective – with a premium on financing global public goods such as agricultural research and development, on results or output-based transfers, and on systematic evaluation. And the imperfect record of foreign-aid programs should not be an excuse for the rich countries' minimal spending.

Most important, the global and regional institutions – the most obvious mechanisms for managing a global social contract – need reform. It is ironic that the World Bank and the IMF have together been the lightning rod for anti-globalization protests. In the end they are not too powerful but too ineffective and limited in their resources. To play an effective role in managing a global social contract, they must be more representative. Why should China and India support a World Bank initiative to reduce greenhouse-gas emissions through carbon trading if they have no real power over that use of resources? And they must be more accountable to those most affected by their programs. Why should the financial institutions not share in the costs when the programs they support fail to generate the returns that would warrant those costs – as was almost surely the case in some of the world's poorest countries that ended up with substantial unpayable debt to the official multilateral lenders?

Governments are meant to temper market failures through regulations, taxes and subsidies, and fines, and to share the benefits of such public goods as public security, military defense, management of natural disasters, and public health through their tax and expenditure decisions. Ideally those decisions are made in a democratic system with fair and legitimate representation of all people, independent of their wealth. For the global community, an equivalent system to manage global market failures only barely exists. Because global markets are imperfect, we need global regulatory arrangements and rules to manage the global environment (Kyoto and beyond), help emerging markets cope with global financial risks (the IMF and beyond), and ways to discourage corruption and anti-competitive practices. The Extractive Industries Transparency Initiative, under which countries and multinational firms commit to transparency in their agreements, is a nongovernment initiative created in this spirit. Like this initiative, global agreements on bankruptcy procedures, on reducing greenhouse-gas emissions, on protecting biodiversity and marine resources, on funding food safety and monitoring public health are all development programs in one form or another – because they reduce the risks and costs of global spillovers and enhance their potential benefits for the poor.

The same goes for the provision of global public goods: the returns on spending that benefits the poor have been extraordinarily high. This is the case with tropical agricultural research, public-health research and disease control, and the limited global efforts to protect regional and global environmental resources. The Green Revolution brought shared prosperity to millions of agricultural producers and consumers in India by raising crop yields; a malaria vaccine would save millions of lives in Africa. These sorts of global programs need to be financed by something that mimics taxes within national economies. Proposals for a tax on international aviation or on carbon emissions fall squarely into this category and might be more attractive (even in the anti-tax United States) were they to be used to increase provision of such global public goods.

Within the advanced market economies, democratic politics help temper the inevitable tendency for the rich and powerful to set the rules to their own short-term advantage. There is no equivalent global polity – only the hope that the rich world will resist short-term advantages in favor of long-term enlightened self-interest. Many developing countries – especially smaller and poorer countries – need transfers from rich countries to participate effectively in global trade and other negotiations.

Rich counties would do well to open their doors further to unskilled and not just skilled immigrants, allocating resources at home to ease the adjustment of native workers through job training. Even within political constraints, much more could be done by the rich countries in their own interests to make immigration regimes more consistent with their overall development policies. Sharing of tax receipts of skilled immigrants across

sending and receiving countries is one example. Another is the effort to reduce the transaction costs of remittances.

In general the developing countries should be more fully and fairly represented in international institutions; this is especially the case in the international financial institutions, whose policies and programs are so central to their development prospects. The same can be said for other international forums: the UN Security Council, the Basel Committee for Banking Regulation and Supervision, the G-8, and so on.

We have a potentially powerful instrument to increase wealth and welfare: the global economy. But to support that economy we have an inadequate and fragile global polity. A major challenge of the 21st century will be to strengthen and reform the institutions, rules, and customs by which nations and peoples complement the global market with collective management of the problems, including persistent and unjust inequality, which markets alone will not resolve.

Note

This essay is based on Nancy Birdsall's 2005 UNU-WIDER (United Nations University World Institute for Development Economics Research) Annual Lecture. The full lecture is available on the Web site of the Center for Global Development at www.cgdev.org.

REVIEW AND DISCUSSION QUESTIONS

1 How might inequality promote economic growth?
2 What are the channels through which inequality is likely to hinder economic growth in developing countries?
3 Why does Birdsall believe that inequality may lead to political outcomes that hurt the poor?
4 Why is it, according to Birdsall, that certain aspects of globalization hurt the poor more than the rich?
5 What can rich countries do to help reduce inequality in poor countries? Do you agree with Birdsall's recommendations? Why or why not?

Abhijit V. Banerjee and Esther Duflo

THE ECONOMIC LIVES OF THE POOR

IN WHAT TURNED OUT TO be a rhetorical master-move, the 1990 World Development Report from the World Bank defined the "extremely poor" people of the world as those who are currently living on no more than $1 per day per person, measured at the 1985 purchasing power parity (PPP) exchange rate. In 1993, the poverty line was updated to $1.08 per person per day at the 1993 PPP exchange rate, which is the line we use in this paper. Poverty lines have always existed – indeed $1 per day was chosen in part because of its proximity to the poverty lines used by many poor countries.[1] However the $1-a-day poverty line has come to dominate the conversations about poverty to a remarkable extent.

But how actually does one live on less than $1 per day? This essay is about the economic lives of the extremely poor: the choices they face, the constraints they grapple with, and the challenges they meet. The available evidence on the economic lives of the extremely poor is incomplete in many important ways. However, a number of recent data sets and a body of new research have added a lot to what we know about their lives, and taken together there is enough to start building an image of the way the extremely poor live their lives.

Our discussion of the economic lives of the extremely poor builds on household surveys conducted in 13 countries listed in Table 14.1: Côte d'Ivoire, Guatemala, India, Indonesia, Mexico, Nicaragua, Pakistan, Panama, Papua New Guinea, Peru, South Africa, Tanzania, and Timor Leste (East Timor). We mainly use the Living Standard Measurement Surveys (LSMS) conducted by the World Bank and the "Family Life Surveys" conducted by the Rand Corporation, all of which are publicly available. In addition, we also use two surveys that we conducted in India with our collaborators. The first was carried out in 2002 and 2003 in 100 hamlets of Udaipur District, Rajasthan (Banerjee, Deaton, and Duflo, 2004). Udaipur is one of the poorer districts of India, with a large tribal population and an unusually high level of female illiteracy. (At the time of the 1991 census, only 5

Table 14.1 Description of data sets

				Households (HHs) living on less than			
				$1.08 per person per day		$2.16 per person per day	
Country	*Source*	*Year*	*Avg. monthly consumption per capita (In PPP$)*	*Number surveyed*	*Percent of total surveyed HHs*	*Number surveyed*	*Percent of total surveyed HHs*
Côte d'Ivoire	LSMS	1988	664.13	375	14%	1,411	49%
Guatemala	GFHS	1995	301.92	469	18%	910	34%
India-Hyderabad	Banerjee-Duflo-Glennerster	2005	71.61	106	7%	1,030	56%
India-Udaipur	Banerjee-Deaton-Duflo	2004	43.12	482	47%	883	86%
Indonesia	IFLS	2000	142.84	320	4%	2,106	26%
Mexico	MxFLS	2002	167.97	959	15%	2,698	39%
Nicaragua	LSMS	2001	117.34	333	6%	1,322	28%
Pakistan	LSMS	1991	48.01	1,573	40%	3,632	83%
Panama	LSMS	1997	359.73	123	2%	439	6%
Papua New Guinea	LSMS	1996	133.38	185	15%	485	38%
Peru	LSMS	1994	151.88	297	7%	821	20%
South Africa	LSMS	1993	291.33	413	5%	1,641	19%
Tanzania	LSMS	1993	50.85	1,184	35%	2,941	73%
Timor Leste	LSMS	2001	64.42	662	15%	2,426	51%

Sources: The Mexican Family Life Survey is documented in Rubalcava and Teruel (2004) and available at <http://www.radix.uia.mx/ennvih/>. The LSMS are available from the World Bank LSMS project page. The IFLS and GFLS are available from the RAND FLS page <http://www.rand.org/labor/FLS/>. The Udaipur data is available from <www.povertyactionlab.org/data>. The Hyderabad data is forthcoming on the same page.

Notes: To compute the $1.08 and $2.16 poverty line for the countries in our sample, we use the 1993 consumption exchange rate provided by the World Bank (available at <http://iresearch.worldbank.org/PovcalNet/jsp/index.jsp>) multiplied by the ratio of the country's Consumer Price Index to the U.S. Consumer Price Index between 1993 and the year the survey was carried out. To compute average consumption per capita and the proportion of households in poverty, observations are weighted using (survey weight * household size).

percent of women were literate in rural Udaipur.) Our second survey covered 2,000 households in "slums" (or informal neighborhoods) of Hyderabad, the capital of the state of Andhra Pradesh and one of the boomtowns of post-liberalization India (Banerjee, Duflo, and Glennerster, 2006). We chose these countries and surveys because they provide detailed information on extremely poor households around the world, from Asia to Africa to Latin America, including information on what they consume, where they work, and how they save and borrow. To flesh out our main themes further, we also draw freely on the existing research literature.

From each of these surveys we identified the extremely poor as those living in households where the consumption per capita is less than \$1.08 per person per day, as well as the merely "poor" defined as those who live under \$2.16 a day using 1993 purchasing power parity (PPP) as benchmark. In keeping with convention, we call these the \$1 and \$2 dollar poverty lines, respectively. The use of consumption, rather than income, is motivated by the better quality of the consumption data in these surveys (Deaton, 2004). Table 14.1 provides some background information on these surveys. It lists the countries, and the source of the survey data. It also lists the sample sizes: the numbers and the proportions of the extremely poor and the poor in each survey. The fraction of individuals living under \$1 dollar per day in the survey vary from 2 percent in Panama to 47 percent in Udaipur, and the fraction living under \$2 per day varies from 6 percent in Panama to 86 percent in Udaipur. All the numbers discussed in this paper and detailed results are available in an appendix that appears with the on-line version of this article at <http://www.e-jep.org>.

The way in which we identify the poor does raise questions. Purchasing power parity exchange rates, which are essential to compute a "uniform" poverty line, have been criticized as inadequate, infrequently updated, and inapplicable to the consumption of the extremely poor (Deaton, 2004, 2006). Prices are typically higher in urban than in rural areas, and even in rural areas, the poor may pay different prices than everyone else. Also, reporting periods vary significantly from survey to survey and this has been shown to affect systematically what people report.

But while these issues are obviously serious for counting the exact number of the poor, they may affect the conclusions of this essay less because instead of counting the poor, we are describing what their lives look like. Misclassifying some households should not change anything very important about the averages we observe in the data, unless both the number affected are very large and those artificially moved into or out of poverty by changes in the poverty line are very different than the other poor. It turns out that most of our conclusions do not change if we look at the poor rather than the extremely poor, which is reassuring. Nevertheless, we cannot entirely rule out the possibility that our results may be different with a different poverty line.

We also assume that the people we are describing as the poor are long-term poor, in the sense that their permanent income is actually close to their observed consumption. If the poor people we observe are just making a brief transition through poverty, then some of the behaviors that we will observe (such as lack of savings) would be less puzzling, and others (like the lack of assets) would be much more so. We feel that this assumption is a reasonable one in most of the countries, since the fraction of the population below \$2.16 a day is actually sizeable – 40 percent of the population or more in the median country and more than 70 percent in quite a few. Thus, it is unlikely that many of these people are just temporarily poor. However, for this reason, the poor in Panama, where only 6 percent

of the population is poor, or in South Africa, where 19 percent is poor, may not be easily compared to the poor in some of the other countries, where the poor are a much larger share of the population.

The living arrangements of the poor

The typical extremely poor family tends to be large, at least by the standards of today's high-income countries. The number of family members varies between about six and twelve, with a median value (across the different countries) of between seven and eight, compared to 2.5 in the 2000 U.S. census, for example.

Not all surveys report fertility rates, which would be the ideal way to distinguish whether these high numbers result from the average woman having a lot of children, or if it results from an extended family living together. However, the data does give broad measures of the age structure in these families (the number of those below 13, between 13 and 18, above 51, and so on). The number of adults (over age 18) ranges from about 2.5 to about five, with a median of about three, which suggests a family structure where it is common for adults to live with parents, siblings, uncles, cousins, and so on. This finding is common in the literature on developing countries. When every penny counts, it helps to spread the fixed costs of living, like housing, over a larger number of people. Consistent with this view, family *size* is larger for the extremely poor than for the entire group below \$2 a day, on the order of one half of one person or more, though at least some part of this difference is because extremely poor families have more children living with them.

These families also have a large number of children. This fact does not necessarily imply high levels of fertility, as families often have multiple adult women. When we look at the number of children (ages 0 to 18) per woman in the child-bearing age (ages 21–50) we get numbers between two and four in both the rural and the urban sample, though the urban ratios tend to be slightly lower. This ratio cannot be interpreted as a fertility rate, because for example, a 51 year-old could have a child who is now 36, but we only include children who are below age 18. A more useful exercise with this data is to compare the number of young people (those below 18) in these families with the number of older people (those above 51). The ratio varies between three and nine in the rural sample, with a median of six, and between two and eleven in the urban sample, again with a median around six. The corresponding ratio in the United States is around one. The poor of the world are very young.

One reason the population is young is that there are a lot of younger people. A complementary reason is that there are very few older people. The ratio of the number older people (over age 51) to the number of people of "prime-age" (21–50) tends to be between 0.2 and 0.3 in both the rural and the urban sample. The corresponding number in the United States is approximately 0.6. A plausible explanation for this difference might be the higher mortality rates among those who are older and poor in poor countries, but in principle it is possible that it is an artifact of the way we constructed our sample. It could be that older people are underrepresented in our sample because they tend to be richer. But in this case, we might have expected to find more of the older people among the poor (as compared to the extremely poor), whereas the data does not show such a pattern.

How the poor spend their money

A common image of the extremely poor is that they have few real choices to make. Indeed, some people surely work as hard as they can – which may not be particularly hard, because they are underfed and weak and earn barely enough to cover their basic needs, which they always try to fulfill in the least expensive way. Historically, poverty lines in many countries were originally set to capture this definition of poverty – the budget needed to buy a certain amount of calories, plus some other indispensable purchases (such as housing). A "poor" person was essentially defined as someone without enough to eat.

Food and other consumption purchases

Yet the average person living at under $1 per day does not seem to put every available penny into buying more calories. Among our 13 countries, food typically represents from 56 to 78 percent of consumption among rural households, and 56 to 74 percent in urban areas. For the rural poor in Mexico, slightly less than half the budget (49.6 percent) is allocated to food.[2]

Of course, these people could be spending the rest of their money on other commodities they greatly need. Yet among the nonfood items that the poor spend significant amounts of money on, alcohol and tobacco show up prominently. The extremely poor in rural areas spent 4.1 percent of their budget on tobacco and alcohol in Papua New Guinea; 5.0 percent in Udaipur, India; 6.0 percent in Indonesia; and 8.1 percent in Mexico. However, in Guatemala, Nicaragua, and Peru, no more than 1 percent of the budget gets spent on these goods (possibly because the poor in these countries prefer other intoxicants).

Perhaps more surprisingly, spending on festivals is an important part of the budget for many extremely poor households. In Udaipur, over the course of the previous year, more than 99 percent of the extremely poor households spent money on a wedding, a funeral, or a religious festival. The median household spent 10 percent of its annual budget on festivals. In South Africa, 90 percent of the households living under $1 per day spent money on festivals. In Pakistan, Indonesia, and Côte d'Ivoire, more than 50 percent did likewise. Only in some Latin American countries in our sample – Panama, Guatemala, Nicaragua – are festivals not a notable part of the yearly expenditure for a significant fraction of the households. However, in the LSMS surveys, unlike the Udaipur survey, people are not asked to account separately for the food that they bought because of a festival. It is therefore probably no accident that the Udaipur spending on festivals is the highest across the surveys. The LSMS numbers would probably have been higher if data on food spending because of festivals had been directly collected in those surveys.

On the other hand, the under-$1-per-day households spend very little on forms of entertainment common in high-income countries such as movies, theater, or video shows. In all 13 countries in our sample, in the month preceding the survey the average extremely poor household spent less than 1 percent on any of these forms of entertainment. The comparable number for the United States is 5 percent. We can only speculate about the roots of this difference. Has the importance given to festivals and other indigenous forms of entertainment crowded out movie-going? Or is the answer as simple as a lack of access to movie theaters?

The propensity to own a radio or a television, a widespread form of entertainment for American households, varies considerably across low-income countries. For example, among rural households living under $1 per day, ownership of a radio is 11 percent in the Udaipur survey, almost 60 percent in Nicaragua and Guatemala, and above 70 percent in South Africa and Peru. Similarly, no one owns a television in Udaipur, but in Guatemala nearly a quarter of households do, and in Nicaragua, the percentage is closer to a half.

These phenomena of spending on festivals and ownership of radios or televisions appear to be related. In Udaipur, where the share spent on festivals is the highest, radio and television ownership is very low. In Pakistan, the fraction spent on festivals is 3.3 percent and only 30 percent have a radio. By contrast, in Nicaragua where among respectively the rural and the urban poor 57 and 38 percent have a radio and 21 percent and 19 percent own a television, very few households report spending anything on festivals.[3] One wrinkle on this explanation is that the urban poor who are much more likely to own a television than the rural poor (60 versus 33 percent in Indonesia, 61 versus 10 percent in Peru, 38 versus 17 percent in South Africa), do not spend less on festivals than their rural counterparts. While this observation is based on only a few data points, it hints at the possibility of an unmet demand for entertainment among the rural poor – they might like to buy a television, but perhaps the television signal does not reach their neighborhoods.

In either case, the poor do see themselves as having a significant amount of choice, but they choose not to exercise that choice in the direction of spending more on food. The typical poor household in Udaipur could spend up to 30 percent more on food than it actually does, just based on what it spends on alcohol, tobacco, and festivals. Indeed, in most of the surveys the share spent on food is about the same for the poor and the extremely poor, suggesting that the extremely poor feel no extra compulsion to purchase more calories.

This conclusion echoes an old finding in the literature on nutrition: even the extremely poor do not seem to be as hungry for additional calories as one might expect. Deaton and Subramanian (1996), using 1983 data from the Indian state of Maharashtra, found that even for the poorest, a 1 percent increase on overall expenditure translates into about a two-thirds of a percent increase in the total food expenditure of a poor family. Remarkably, the elasticity is not very different for the poorest individuals in the sample and the richest (although nobody is particularly rich in this sample). The Deaton and Subramanian estimate is one of the higher estimates. Thomas and Strauss (1997) found an elasticity of demand for food with respect to expenditure per capita of about a quarter for the poorest Brazilians.

Another way to make the same point is to look at what edibles the extremely poor are buying. Deaton and Subramanian (1996) note that among grains, in terms of calories per rupee, the millets (*jowar* and *bajra*) are clearly the best buy. Yet in their data, only about two-thirds of the total spending on grains is on these grains, while another 20 percent is on rice, which costs more than twice as much per calorie, and a further 10 percent or so is spent on wheat, which is a 70 percent more expensive way to get calories. In addition, the poor spend almost 7 percent of their total budget on sugar, which is both more expensive than grains as a source of calories and bereft of other nutritional value. The same affinity for sugar also shows up in our Udaipur data, in which the poor spend almost 10 percent of their food budget on the category "sugar, salt, and other processed foods" (this does not include cooking oil, which makes up another 6 percent of the expenditures on food). Even for the extremely poor, for every 1 percent increase in the food expenditure, about half goes into purchasing more calories, and half goes into purchasing more expensive (and presumably better tasting) calories.

Finally, the trend seems to be to spend even less money on food. In India, for example, spending on food went from 70 percent in 1983 to 62 percent in 1999–2000, and the share of millet in the food budget dropped to virtually zero (Deaton, 2006). Not surprisingly, the poor are also consuming fewer calories over time (Meenakshi and Vishwanathan, 2003), though this change may also reflect that their work involves less physical effort (Jha, 2004).

The ownership of assets

While all the surveys have some information about assets, the list of assets varies. To obtain a relatively coherent list across countries, we focus on radios, televisions, and bicycles. The share of people who own these particular assets varies significantly across countries.

As we already discussed, ownership of radio and television varies from country to country, but is low in some countries. One reason may be the lack of signal. Another reason may be that a television is an expensive and lumpy transaction for which one has to save if one is born poor. We do see a fairly steep income gradient in the ownership of radio and television: In all countries, the share of rural households owning a television is substantially larger for those who live on less than $2 a day than those living on less than $1 a day. For example, the share owning a television increases from 14 percent for those living on $1 a day to 45 percent for those living on less than $2 a dollar a day in Côte d'Ivoire; from 7 to 17 percent in South Africa; and from 10 to 21 percent in Peru. This pattern has been observed in other contexts (Filmer and Pritchett, 2001) and has been the basis for using the lack of durable goods as a marker for poverty. Our data suggests that this proxy can be appropriate within a country, but it could easily be misleading in a cross-country comparison.

Among productive assets, land is the one that many people in the rural surveys seem to own, although enormous country-to-country variation exists. Only 4 percent of those living under $1 a day own land in Mexico, 1.4 percent in South Africa, 30 percent in Pakistan, 37 percent in Guatemala, 50 percent in Nicaragua and Indonesia, 63 percent in Côte d'Ivoire, 65 percent in Peru, and 85 percent in Panama. In the Udaipur sample, 99 percent of the households below $1 a day own some land in addition to the land on which their house is built, although much of it is dry scrubland that cannot be cultivated for most of the year. However, when the extremely poor do own land, the plots tend to be quite small. The median landholding among the poor who own land is one hectare or less in Udaipur, Indonesia, Guatemala, and Timor; between one and two hectares in Peru, Tanzania, Pakistan; and between two and three hectares in Nicaragua, Côte d'Ivoire, and Panama.

Apart from land, extremely poor households in rural areas tend to own very few durable goods, including productive assets: 34 percent own a bicycle in Côte d'Ivoire, but less than 14 percent in Udaipur, Nicaragua, Panama, Papua New Guinea, Peru, and East Timor. In Udaipur, where we have detailed asset data, most extremely poor households have a bed or a cot, but only about 10 percent have a chair or a stool and 5 percent have a table. About half have a clock or a watch. Fewer than 1 percent have an electric fan, a sewing machine, a bullock cart, a motorized cycle of any kind, or a tractor. No one has a

phone. As we will see below, this situation does not mean that most of these households are employees and have little use for such assets. On the contrary, many extremely poor households operate their own businesses, but do so with almost no productive assets.

The pursuit of health and well-being

Should we worry about the fact that the poor are buying less food than they could? According to Deaton and Subramanian (1996), the poorest people – the ones in the bottom decile in terms of per capita expenditure – consume on average slightly less than 1400 calories a day. This level is about half of what the Indian government recommends for a man with moderate activity, or a woman with heavy physical activity (see <http://www.fao.org/documents/show_cdr.asp?url_file=/DOCREP/x0172e/x0172e02.htm>). The shortfall seems enormous. The Udaipur data, which includes other health indicators, suggest that health is definitely reason for concern.

Among the extremely poor in Udaipur, only 57 percent report that the members of their household had enough to eat throughout the year. Among the poor adults in Udaipur, the average "body mass index" (that is, weight in kilograms divided by the square of the height in meters) is 17.8. Sixty-five percent of adult men and 40 percent of adult women have a body mass index below 18.5, the standard cutoff for being underweight (WHO expert consultation, 2004). Moreover, 55 percent of the poor adults in Udaipur are anemic, which means they have an insufficient number of red blood cells. The poor are frequently sick or weak. In Udaipur, 72 percent report at least one symptom of disease and 46 percent report an illness which has left them bedridden or necessitated a visit to the doctor over the last month. Forty-three percent of the adults and 34 percent of the adults aged under 50 report difficulty carrying out at least one of their "activities of daily living," such as working in the field, walking, or drawing water from a well. Diarrhea is extremely frequent among children. About one-seventh of the poor have vision problems, which may be caused by either poor nutrition, or the diseases that afflict them, or a combination of the two.

Detailed information on health is not available in all the surveys, but most report the incidence over the last month of health episodes that left a household member bedridden for a day or more, or that required a household member to see a doctor. The general pattern is a remarkably high level of morbidity. Among the rural poor living under $1 a day in Peru, South Africa, East Timor, Panama, and Tanzania, between 11 and 15 percent of households report having a member either being bedridden for at least a day or requiring a doctor. The number is between 21 and 28 percent in Pakistan, Indonesia, and Côte d'Ivoire, and between 35 and 46 percent in Nicaragua, Udaipur, and Mexico.

Even these high numbers may be an understatement if the poor are less prone to recall and report such sicknesses than those with higher incomes. The poor generally do not complain about their health – but then they also do not complain about life in general, either. While the poor certainly *feel* poor, their levels of self-reported happiness or self-reported health levels are not particularly low (Banerjee, Duflo, and Deaton, 2004). On the other hand, the poor do report being under a great deal of stress, both financial and psychological. In Udaipur, about 12 percent say that there has been a period of one month or more in the last year in which they were so "worried, tense, or anxious" that it interfered with normal activities like sleeping, working, and eating. Case and Deaton (2005) compare data from South Africa to the data from Udaipur and data from the United States. They find that the answers of poor South Africans and poor Indians about stress look very similar, while reported levels of stress are very much lower in the United States. The most frequently cited reason for such tensions is health problems (cited by 29 percent of respondents), with lack of food and death coming next (13 percent each). Over the last year, in 45 percent of the extremely poor households in Udiapur (and 35 percent of those living under $2 a day) adults had to cut the size of their meal at some point during the year and in 12 percent of them, children had to cut the size of their meals. In the extremely poor households under $1 per day, 37 percent report that, at some point in the past year, the adults in the household went without a meal for an entire day. Cutting meals is also strongly correlated with unhappiness.

Even poor households should be able to save enough to make sure that they never have to cut meals, because as discussed above they do have substantial slack in their budgets and cutting meals is not that common. Additional savings would also make it easier to deal with healthcare emergencies. For these households, saving a bit more would seem like a relatively inexpensive way to reduce stress.

Investment in education

The extremely poor spend very little on education. The expenditure on education generally hovers around 2 percent of household budgets: higher in Pakistan (3 percent), Indonesia (6 percent), and Côte d'Ivoire (6 percent), but much lower in Guatemala (0.1 percent), and South Africa (0.8 percent). The fraction does not really change very much when we compare the poor to the extremely poor, or rural areas to urban areas, though in a few countries like Pakistan, urban families spend substantially more than rural families. This low level of expenditure on education is not because the children are out of school. In 12 of the 13 countries in our sample, with the exception of Côte d'Ivoire, at least 50 percent of both boys and girls aged 7 to 12 in extremely poor households are in school. In about half the countries, the proportion enrolled is greater than 75 percent among girls, and more than 80 percent among boys.

The reason education spending is low is that children in poor households typically attend public schools or other schools that do not charge a fee. In countries where poor households spend more on education, it is typically because government schools have fees, as in Indonesia and Côte d'Ivoire. However, mounting evidence, reported below, suggests that public schools in these countries are often dysfunctional, which could explain why even very poor parents in Pakistan are pulling their children out of public schools and spending money to send them to private schools.

How the poor earn their money

Walking down the main street of the biggest slum in the medium-sized southern Indian city of Guntur at nine in the morning, the first thing one notices are the eateries. In front of every sixth house that directly faced the road, by our count, a woman was sitting behind a little kerosene stove with a round cast-iron griddle roasting on it. Every few minutes someone would walk up to her and order a *dosa*, the rice and beans pancakes that almost everyone eats for breakfast in south India. She would throw a cupful of the batter on the griddle, swirl it around to cover almost the entire surface, and drizzle some oil around

the edges. A minute or two later, she would slide an off-white pock-marked pancake off the griddle, douse it in some sauce, fold it in a newspaper or a banana leaf and hand it to her client, in return for a rupee (roughly 15 cents).

When we walked back down that same street an hour later, the women were gone. We found one inside her house, filling her daughter's plate with lunch that she had cooked while making the *dosas*. She told us that later that day, she was going out to vend her *saris*, the long piece of decorative cloth that Indian women drape around themselves. She gets plain nylon saris from the shop and stitches beads and small shiny pieces on them. Once a week, she takes them from house to house, hoping that women would buy them to wear on special occasions. And they do buy them, she said confidently. All the other *dosa* women we met that day had a similar story: once they are done frying *dosas*, they do something else. Some collect trash; others make pickles to sell; others work as laborers.

Entrepreneurship and multiple occupations among the poor

All over the world, a substantial fraction of the poor act as entrepreneurs in the sense of raising capital, carrying out investment, and being the full residual claimants for the resulting earnings. In Peru, 69 percent of the households who live under $2 a day in urban areas operate a nonagricultural business. In Indonesia, Pakistan, and Nicaragua, the numbers are between 47 and 52 percent. A large fraction of the rural poor operate a farm: 25 to 98 percent of the households who earn less than a dollar a day report being self-employed in agriculture, except in Mexico and South Africa where self-employment in agriculture is very rare.[4] Moreover, many of the rural poor – from 7 percent in Udaipur up to 36 percent in Panama – also operate a nonagricultural business.

Many poor households have multiple occupations. Like the *dosa* women of Guntur, 21 percent of the households living under $2 a day in Hyderabad who have a business actually have more than one, while another 13 percent have both a business and a laborer's job. This multiplicity of occupations in urban areas is found in many other countries as well, though not everywhere. Among those earning less than $2 a day, 47 percent of the urban households in Côte d'Ivoire and Indonesia get their income from more than one source; 36 percent in Pakistan; 20.5 percent in Peru; and 24 percent in Mexico. However, in urban South Africa and Panama, almost no one has more than one occupation and only 9 percent do so in Nicaragua and Timor Leste.[5]

This pattern of multiple occupations is stronger in rural areas. In Udaipur district, as we discussed earlier, almost everybody owns some land and almost everybody does at least some agriculture. Yet only 19 percent of the households describe self-employment in agriculture as the *main* source of their income. Working on someone else's land is even rarer, with only 1 percent reporting this as their main source of income. In other words, the poor cultivate the land they own, no less and usually, no more. Yet, agriculture is not the mainstay of most of these households. The most common occupation for the poor in Udaipur is working as a daily laborer: 98 percent of households living under $1 per day in rural areas report doing this, and 74 percent claim it is their main source of earnings.

This pattern is confirmed by data from a smaller survey of 27 villages randomly sampled from eight districts in West Bengal (Banerjee, 2006). In this survey, even households that claim to be the operators for a plot of land spend only 40 percent of their time in agricultural activities on their own land. The fraction is not very different for men and women – women do less direct agricultural work but more animal rearing, along with growing fruits and vegetables. Their other activities include teaching, sewing and embroidery, unpaid household work, and gathering fuel. Strikingly, almost 10 percent of the time of the average household is spent on gathering fuel, either for use at home or for sale. The median family in this survey has three working members and *seven* occupations.

In most of the Living Standard Measurement Surveys, households are not asked their main source of earnings, but the pattern of diversification among rural households is apparent nevertheless. In Guatemala, 65 percent of the rural extremely poor say they get some income from self-employment in agriculture, 86 percent work as laborers outside agriculture, and 24 percent are self-employed outside agriculture. In Indonesia, 34 percent of the rural, extremely poor households work as laborers outside of agriculture, and 37 percent earn income from self-employment outside of agriculture. In Pakistan, 51 percent of the rural, extremely poor earn income from labor outside of agriculture and 35 percent from a business outside of agriculture. Overall, the fraction of the rural extremely poor households who report that they conduct more than one type of activity to earn a living is 50 percent in Indonesia, 72 percent in Côte d'Ivoire, 84 percent in Guatemala, and 94 percent in Udaipur. It is smaller, but not negligible – between 10 and 20 percent – in Nicaragua, Panama, Timor Leste, and Mexico. Once again, an exception to this general pattern is South Africa, where less than 1 percent of the rural poor or extremely poor report multiple occupations.

Temporary migration to work

Where do rural households, which are often a walk of a half-hour or more from the nearest road, find all this nonagricultural work? They migrate.

Temporary migration is rarely documented in surveys, but in the Udaipur survey, which had questions about this activity, 60 percent of the poorest households report that someone from their family had lived outside for a part of the year to obtain work. For 58 percent of the families, the head of the household had migrated. The migrants typically complete multiple trips in a year. However, people do not leave for very long. The median length of a completed migration is one month, and only 10 percent of migration episodes exceed three months. Nor do most of the migrants travel very far: 28 percent stay in the district of Udaipur and only 42 percent leave the state of Rajasthan.

Permanent migration for work reasons is rare, although many women move when they marry. Even if we look at households currently living in urban areas, where the inflow of immigrants is presumably higher than in rural areas, the share of extremely poor households who had one member that was born elsewhere and had migrated for work reasons was just 4 percent in Pakistan, 6 percent in Côte d'Ivoire, 6 percent in Nicaragua, and almost 10 percent in Peru. The 1991 Census of India reports that only 14.7 percent of the male population lives somewhere other than where they were born. Indonesia is the only country in our data where the proportion is higher: 41 percent of the urban households came from elsewhere. Indonesia is also the only country in this sample where migration was explicitly subsidized.

Lack of specialization

A pattern seems to emerge. Poor families do seek out economic opportunities, but they tend not to become too specialized. They do some agriculture, but not to the point where it would afford them a full living (for example, by buying/renting/sharecropping more land). They also work outside, but only in short bursts, and they do not move permanently to their place of occupation.

This lack of specialization has its costs. Many of these poor households receive most of their earnings from these outside jobs, despite only being away for 18 weeks of the year on average (in the case of Udaipur). As short-term migrants, they have little chance of learning their jobs better, or ending up in a job that suits their specific talents, or being promoted.

Even the nonagricultural businesses that the poor operate typically require relatively few specific skills. For example, the businesses in Hyderabad include 11 percent tailors, 8 percent fruit and vegetable sellers, 17 percent small general stores, 6.6 percent telephone booths, 4.3 percent auto owners, and 6.3 percent milk sellers. Except for tailoring, none of these jobs require the high levels of specialized competence that take a long time to acquire, and therefore are associated with higher earnings. In several ways, the poor are trading off opportunities to have higher incomes.

The problem of scale

The businesses of the poor typically operate at a remarkably small scale. As we saw, the average landholding for those who own land is usually quite tiny, and renting land is infrequent. Furthermore, most of this land is not irrigated and cannot be used all year.

The scale of nonagricultural businesses run by the poor also tends to be small. In the 13 countries in our sample, the median business operated by people living under $2 dollars a day either in a rural or an urban location has no paid staff, and the average number of paid employees range between 0.14 in rural Nicaragua to 0.53 in urban Panama. Businesses are operated on average by 1.38 (in Peru) to 2.59 (in Côte d'Ivoire) people – most of them being family members. Most of these businesses have very few assets as well. In Hyderabad, only 20 percent of the businesses operate out of a separate room. In Pakistan, about 40 percent of the businesses of those living under $1 or $2 dollar a day have a vehicle, but only 4 percent have a motorized vehicle and none have any machinery. In other countries, even nonmotorized vehicles are rare. In Hyderabad, where we have an exhaustive list of business assets, the most common assets are tables, scales, and pushcarts.

Many of these businesses are probably operating at too small a scale for efficiency. The women making *dosas* spend a lot of time waiting: having fewer *dosa*-makers who do less waiting would be more efficient. In fact, it might make sense in efficiency terms for the *dosa*-makers to work in pairs: one to make the *dosas* and one to wrap them and make change.

Markets and the economic environment of the poor

The economic choices of the poor are constrained by their market environment. For example, some may save little because they lack a safe place to put their savings. Other constraints result from a lack of shared infrastructure. When the government builds a water line to your neighborhood, for example, you no longer need your own well. This section focuses on markets. The next takes up the issue of infrastructure.

The market for credit and the poor

The data from our 13 countries suggests that the fraction of rural, extremely poor households having an outstanding debt varies between countries, from 11 percent in rural East Timor to 93 percent in Pakistan. But across the surveys, very few of the poor households get loans from a formal lending source.

In the Udaipur sample, about two-thirds of the poor had a loan at the time of the interview. Of these loans, 23 percent are from a relative, 18 percent from a money lender, 37 percent from a shopkeeper, and only 6.4 percent from a formal source like a commercial bank or a cooperative. Lest one suspect that the low share of bank credit is due to the lack of physical access to banks, a similar pattern occurs in urban Hyderabad, where households living below $2 a day primarily borrow from moneylenders (52 percent), friends or neighbors (24 percent), and family members (13 percent), and only 5 percent of the loans are with commercial banks. Indonesia is the one country where a substantial share of loans to the poor is formal: thanks to efforts by the Bank Rakyat Indonesia, one-third of the rural poor Indonesian households borrow from a bank. In the other countries, relatives, shopkeepers, and other villagers form, by far, the overwhelming source of borrowed funds.

Credit from informal sources tends to be expensive. In the Udaipur survey, where we have data on interest rates not available in other surveys, those living on less than $1 a day pay on average 3.84 percent per month for the credit they receive from informal sources. Those who consume between $1 and $2 dollar a day per capita pay a little less: 3.13 percent per month. This lower rate occurs in part because they rely less on informal sources of credit and more on the formal sources than the extremely poor; and in part it reflects that informal interest rates are lower for those with more land – the interest rate from informal sources drops by 0.40 percent per month for each additional hectare of land owned. The monthly interest rate we see in the Hyderabad sample is even higher: 3.94 percent per month for those living under $2 dollars a day. Few of these urban poor borrowers in Hyderabad have any land to use as collateral.

These high interest rates seem not to occur directly because of high rates of default, but rather as a result of the high costs of contract enforcement. While delay in repayment of informal loans is frequent, default is actually rare (Banerjee and Duflo, 2005). For example, a "Summary Report on Informal Credit Markets in India" reports that across four case studies of money-lenders in rural India, default explains only 23 percent of the interest rate charged (Dasgupta, 1989). A well-known study of rural money-lenders in Pakistan found that the median rate of default across money-lenders is just 2 percent (Aleem, 1990).

However, these low default rates are anything but automatic. Contract enforcement in developing countries is often difficult, and courts often fail to punish recalcitrant borrowers. As a result, lenders often must spend resources to assure that their loans get repaid, which drives up interest rates. The fact that lending depends so much on effective screening and monitoring also means that lending to the poor is especially difficult. Again, part of the problem is that the poor lack collateral to secure the loan and therefore lenders hesitate to trust them. Given that the loan amount will in any case be small, the profits from the transaction may not be large enough to cover the cost of monitoring/screening. As a result, many lenders are reluctant to lend to the poor. Moreover, informal lenders located close to the borrowers may be the only ones who are willing to lend to the poor – since monitoring/screening is relatively cheap for them. However, these informal lenders pay more for their deposits than the more formal institutions, since they are less capitalized and regulated and do not have any government guarantees. This higher cost of deposits is passed on to poorer borrowers. The gap can be considerable – in the study by Aleem (1990), the cost of capital for the money-lenders was 32.5 percent in a year when banks were only paying 10 percent for their deposits.

The market for savings and the poor

A main challenge for the poor who try to save is to find safety and a reasonable return. Stashing cash inside your pillow or elsewhere at home is neither safe nor well-protected from inflation. In addition, recent research by Ashraf, Karlan, and Yin (forthcoming) in the Philippines and Duflo, Kremer, and Robinson in Kenya (2006) suggests that the poor, like everyone else, have problems resisting the temptation of spending money that they have at hand.

Few poor households have savings accounts. Except in Côte d'Ivoire, where 79 percent of the extremely poor households under $1 a day have a savings account, the fraction is below 14 percent in the other countries in our data. In Panama and Peru, less than 1 percent of poor households have a savings account. In most countries, the share of households with a saving account is similar in rural and urban areas, and similar for those under $2 a day and those under $1 a day. Here India appears to be an exception, since only 6 percent of the extremely poor households in rural Udaipur have a savings account, while 25 percent of them do in the city of Hyderabad.

A lack of access to reliable savings accounts appears common to the poor everywhere, as documented in Stuart Rutherford's (2000) fascinating book, *The Poor and their Money*. Rutherford describes many strategies the poor use to deal with this problem. For example, they form savings "clubs," where each person makes sure that the others save. Self-Help Groups (SHGs), popular in parts of India and present in Indonesia as well, are saving clubs which also make loans to their members out of the accumulated savings (they are also sometimes linked to banks). In Africa, Rotating Savings and Credit Associations (ROSCAs) allow people to lend their savings to each other on a rotating basis. Others pay deposit collectors to collect their deposits and put them in a bank. Others deposit their savings with local money-lenders, with credit unions (which are essentially larger and much more formally organized self-help groups) or in an account at the local post office. Indeed, one reason why many of the poor respond so well to microcredit is not necessarily because it offers them credit, but because once you take a loan and buy something with it, you have a disciplined way to save – namely, by paying down the loan.

Even participation in semiformal savings institutions (such as self-help groups, ROSCAs, and microfinance institutions) is not nearly as common among the poor as one might have expected. Even in India, despite the high visibility especially of SHGs, less than 10 percent of the poor in our Udaipur and Hyderabad surveys are part of an SHG or a ROSCA. The majority of the households who have any savings deposit it at a bank.

The market for insurance and the poor

The poor have little access to formal insurance. In many surveys, questions about insurance are not even asked. In the six of our seven countries where such data is available, less than 6 percent of the extremely poor are covered by health insurance of any kind. The exception is Mexico, where about half of the extremely poor have coverage. The numbers are not much higher in urban areas. Life insurance is a bit more common in India (and is, essentially, a form of savings). Four percent of the extremely poor in Udaipur and 10 percent in Hyderabad have life insurance.[6]

In principle, social networks can provide informal insurance. For example, Udry (1990) shows that poor villagers in Nigeria experience a dense network of loan exchanges: Over the course of one year, 75 percent of the households had made loans, 65 percent had borrowed money, and 50 percent had been both borrowers and lenders. Almost all of these loans took place between neighbors and relatives. Both the repayment schedule and the amount repaid were affected by both the lender's and the borrower's current economic conditions, underlining the role of these informal loans in providing insurance. Munshi and Rosenzweig (2005) argue that the same process happens in India through the *jati* or subcaste networks.

Yet these informal networks have only a limited ability to protect the households against risk. The consumption of poor households is strongly affected by variations in their incomes, as has been shown by Deaton (1997) in Côte d'Ivoire, Munshi and Rosenzweig (2005) in India, Fafchamps and Lund (2003) in the Philippines, and Townsend (1995) in Thailand. Poor households also bear most health care risks (both expenditures and foregone earnings) directly. For example, Gertler and Gruber (2002) find that in Indonesia a decline in the health index of the head of the household is associated with a decline in nonmedical expenditures. In Udaipur, large expenditures on health ($70 and higher, at purchasing power parity exchange rates) are covered by borrowing or dissaving. Only 2 percent of these expenses were paid for by someone else, and none came from the self-help groups. Twenty-four percent of the households in Hyderabad had to borrow to pay for health expenses in the last year. When the poor fall under economic stress, their "insurance" often means eating less or taking their children out of school. For example, Jacoby and Skoufias (1997) find that poor children leave school in bad years. Rose (1999) finds that the gap in mortality of girls relative to boys is much larger in drought years (but only for the landless households, who are not able to sell land or borrow to weather the crisis). Poor households also are less likely to get medical treatment for themselves or their children. In the Udaipur sample, those who were sick in the last months and did not seek treatment (more than half) cite lack of money more often than any other reason (34 percent). The lack of insurance also leads the poor to underinvest in risky but profitable technologies, such as new seeds (Morduch, 1995).

The weaknesses of informal insurance should not really be a surprise. Ultimately, informal insurance relies on the willingness of the fortunate to take care of those less favored, which limits the insurance provided. Moreover, informal social networks are often not well-diversified. They often spread risk over households who live nearby and have similar incomes and occupations, as Fafchamps and Gubert (2005) show for the Philippines.

Governments in these countries are not very effective at providing insurance either. In most countries, the government is supposed to provide free health care to the poor. Yet health care is rarely free. Government health care providers often illegally charge for their own services and for medicines. Also, as we will see, the quality of care in the public system is so low that the poor often end up visiting private providers.

A number of governments provide a form of income insurance through safety-net "food for work" programs. Under these programs, everyone is entitled to a certain number of days of government employment usually involving physical labor at a pre-announced (relatively low) wage. In Udaipur, where the years leading up to the survey had been particularly arid, 76 percent of the poor had at least one of the household members work on a public employment program of this kind. However, such schemes often offer only a limited number of jobs which can end up being doled out in a way that discriminates against the poor.

The market for land and the poor

For historical reasons, land is the one asset the poor tend to own. But land records in developing countries are often incomplete and many people do not have titles to their land. As many including most famously Hernando De Soto (2003) have emphasized, an unclear title makes it harder to sell the land or mortgage it. This situation is especially troubling for the poor, because they tend to own a lot of the land that was either recently cleared or recently encroached upon, which is typically the land where tilling is incomplete. Erica Field (2006) suggests that, in Peru, the poor spend a lot of time protecting their claims to the land (since they have no tide, they have no legal recourse).

The poor also suffer because where titles are missing or imperfectly enforced, political influence matters. In parts of Ghana, land belongs either to lineages or to the village, and cultivators have only rights of use. In this context, Goldstein and Udry (2005) show that the people who lack the political clout to prevent having their land taken away from them by the village or their lineage (which typically includes the poor) do not leave their land fallow for long enough. Leaving land to fallow increases its productivity, but increases the risk that someone may seize it.

Finally, a long tradition of research in agricultural economics argues that the poor lack incentives to make the best use of the land they are cultivating because they are agents rather than owners (Shaban, 1987). Banerjee, Gertler, and Ghatak (2002) found that a reform of tenancy that forced landlords to raise the share of output going to the sharecroppers and also gave them a secure right to the land raised productivity by about 50 percent.

Infrastructure and the economic environment of the poor

Infrastructure includes roads, power connections, schools, health facilities, and public health infrastructure (mostly water and sanitation). While markets and the government play differing roles in the supply of such infrastructure, all elements of infrastructure are usefully thought of as part of the environment in which people live, with some characteristics of a local public good, rather than something that can be purchased piecemeal by individuals.

The availability of physical infrastructure to the poor like electricity, tap water, and even basic sanitation (like access to a latrine) varies enormously across countries. In our sample of 13 countries, the number of rural poor households with access to tap water varies from none in Udaipur to 36 percent in Guatemala. The availability of electricity varies from 1.3 percent in Tanzania to 99 percent in Mexico. The availability of a latrine varies from none in Udaipur to 100 percent in Nicaragua. Different kinds of infrastructure do not always appear together. In Indonesia, 97 percent of rural, extremely poor households have electricity but only 6 percent have tap water. Some governments provide reasonable access to both electricity and tap water to the extremely poor: in Guatemala, 38 percent of the extremely poor rural households have tap water and 30 percent have electricity. Other governments do very little: in Udaipur, Papua New Guinea, East Timor, and South Africa, the share of the rural, extremely poor with tap water or electricity is below 5 percent.

Generally, access to electricity and tap water is greater for the urban poor than the rural poor (which is probably fortunate since lack of sanitation in very dense surroundings can be particularly dangerous from the public health point of view). The only exception to this pattern in our 13 countries is Côte d'Ivoire, where rural households seem to have better access. Moreover, access to both tap water and electricity is typically higher for those under \$2 a day than those under \$1 a day.

Most low-income countries have made some attempt to ensure that poor households have access to primary schools and basic health centers. For example, most Indian villages now have a school within a kilometer, and a health subcenter exists for every 10,000 people. However, the quality of the facilities that serve the poor tends to be low, even when they are available, and it is not clear how much they actually deliver. Chaudhury, Hammer, Kremer, Muralidharan, and Rogers (2005) report results on surveys they conducted to measure the absence of teachers and health workers in Bangladesh, Ecuador, India, Indonesia, Peru, and Uganda. They found that the average absence rate among teachers is 19 percent and the average absence rate among health workers is 35 percent. Moreover, because not all teachers and health workers are actually working when at their post, even this picture may be too favorable. Moreover, absence rates are generally higher in poor regions.

In an innovative study on health care quality, Das and Hammer (2004) collected data on the competence of doctors in Delhi, India, based on the kinds of questions they ask and the action they say they would take faced with a hypothetical patient, suffering from conditions they are likely to encounter in their practice. Every Delhi neighborhood, poor or rich, lives within 15 minutes of at least 70 health providers. However, the gap in competence of the average health practitioner between the poorest and richest neighborhoods is almost as large as the gap between the competence of a health provider with an MBBS degree (the equivalent of an MD in the United States) and a provider without such a qualification. In fact, an expert panel found that the treatments suggested by the average provider in their sample are slightly more likely to do harm rather than good, due to a combination of misdiagnosis and overmedication.

These differences in health care and basic sanitation infrastructure can affect mortality. Several surveys ask women about their pregnancies and the outcomes, including whether the child is still alive. We compute an infant mortality measure as the number of children who died before the age of one divided by the number of live births. The numbers are startling, especially because they are likely to be underestimates (not all children are remembered, especially if they died very early). Among the rural, extremely poor, the lowest infant mortality that we observe is 3.4 percent in Indonesia. At the high end, infant mortality among the extremely poor is 8.7 percent in South Africa and Tanzania, 10 percent in Udaipur, and 16.7 percent in Pakistan. The rates are lower, but not much lower, in urban areas. The rates also remain high if the definition of poverty is expanded to include those who live under \$2 a day. Wagstaff (2003) uses data from the demographic and health surveys to estimate prevalence of malnutrition and child mortality among those living under \$1 a day in a number of countries. He finds very large difference between survival chances of poor children in different countries, and shows that they are correlated with health spending per capita in these countries.

The low quality of teaching in public schools has clear effect on learning levels as well. In India, despite the fact that 93.4 percent of children ages 6–14 are enrolled in schools (75 percent of them in government schools), a recent nationwide survey found that 34.9 percent of the children age 7 to 14 cannot read a simple paragraph at second-grade level (Pratham, 2006). Moreover, 41.1 percent cannot do subtraction, and 65.5 percent cannot do division. Even among children in grades six to eight in government schools, 22 percent cannot read a second-grade text.

In countries where the public provision of education and health services is particularly low, private providers have stepped in. In the parts of India where public school teacher absenteeism is the highest, the fraction of rural children attending private schools is also the highest (Chaudhury, Hammer, Kremer, Muralidharan, and Rogers, 2005). However, these private schools are less than ideal: they have lower teacher absenteeism than the public schools in the same village, but their teachers are significantly less qualified in the sense of having a formal teaching degree.

A similar but more extreme pattern arises in health care. Again, private providers who serve the poor are less likely to be absent and more likely to examine the patient with some care than their public counterparts, but they tend to be less well qualified (for example, Das and Hammer, 2004). However, unlike in education, where most poor children are still in the public system, even in countries and regions where public education is of extremely poor quality, where the public health care system has high levels of absence, most people actually go to private providers. For example, in India, where absence of health care providers is 40 percent, 58 percent of the extremely poor households have visited a private health care provider in the last month. By contrast in Peru, where the absentee rate for health care providers is fairly low at 25 percent (Chaudhury, Hammer, Kremer, Muralidharan, and Rogers, 2005), only 9 percent of the rural extremely poor households have been to a private health provider in the last month. Within the Udaipur District, Banerjee, Deaton, and Duflo (2004) also found that the rate of usage of the public health facility is strongly correlated with the absence rate at the public health facilities in the areas.

Understanding the economic lives of the poor

Many facts about the lives of the poor start to make much more sense once we recognize that they have very limited access to efficient markets and quality infrastructure. The fact that the poor usually cultivate the land they own, no more and no less, for example, probably owes a lot to the agency problems associated with renting out land. In part, it must also reflect the fact that the poor, who typically own too little land relative to the amount of family labor, suffer from lack of access to credit. This pattern is reinforced by the difficulties that the poor face in getting any kind of insurance against the many risks with which a farmer needs to deal: A second job outside agriculture offers security against some of that risk.

Why so little specialization?

Risk-spreading is clearly one reason why the poor, who might find risk especially hard to bear, tend not to be too specialized in any one occupation. They work part time outside agriculture to reduce their exposure to farming risk, and keep a foot in agriculture to avoid being too dependent on their nonagricultural jobs.

Another reason for a second job is to occupy what would otherwise be wasted time. When we asked the *dosa*-sellers of Guntur why they did so many other things as well, they all said: "[We] can sell *dosas* in the morning. What do we do for the rest of the day?" Similarly, farmers who do not have irrigated land can only farm when the land is not too dry. Finding some work outside agriculture is a way for them to make productive use of their time when the land is unusable. However, this argument is incomplete. We also need to explain what made the women opt to sell *dosas*: After all they could have skipped the *dosas* and specialized in whatever they were doing for the rest of the day. Risk spreading remains a possible answer, but many of them seem to be in relatively safe occupations. Given the fact that almost everyone owns the cooking implement that one needs to make a *dosa* and entry is free, it does not seem that *dosa*-making is an extraordinarily profitable activity.

A final, more compelling reason for multiple jobs is that the poor cannot raise the capital they would need to run a business that would occupy them fully. As we saw, most businesses operate with very little assets and little working capital. Likewise, some poor farmers might be able to irrigate their lands and make them useable for a larger part of the year, but they lack the necessary access to funds. Of course, in agriculture, some downtime will always remain, justifying some amount of diversification of jobs. But such downtime would be much more limited than what the data actually reveals.

Why so many entrepreneurs?

Once we draw this link between the tendency of the poor to be in multiple occupations and their access to financial markets, it is clear why so many of the poor are entrepreneurs. If you have few skills and little capital, and especially if you are a woman, being an entrepreneur is often easier than finding an employer with a job to offer. You buy some fruits and vegetables or some plastic toys at the wholesalers and start selling them on the street; you make some extra *dosa* mix and sell the *dosas* in front of your house; you collect cow dung and dry it to sell it as a fuel; you attend to one cow and collect the milk. These types of activities are exactly those in which the poor are involved.

It is important not to romanticize these penniless entrepreneurs. Given that they have no money, borrowing is risky, and no one wants to lend to them, the businesses they run are inevitably extremely small, to the point where there are clearly unrealized economies of scale. Moreover, given that so many of these firms have more family labor available to them than they can use, they do very little to create jobs for others. Of course, this pattern makes it harder for anyone to find a job and hence reinforces the proliferation of petty entrepreneurs.

Why don't the poor eat more?

Another puzzle is why the poor do not spend more on food both on average and especially out of the marginal dollar. Eating more and eating better (more grains and iron-rich foods, less sugar) would help them build their body-mass indices to healthier levels.

One possibility is that eating more would not help them that much, or not for long, because they would become weak again at the first attack of disease, which will invariably occur. For example, Deaton, Cutler, and Lleras-Muney (2006) argue that nutrition is at best a very small part of what explains the tremendous gains in health around the world in the past few decades. However, some improvements in nutrition (reduction of anemia in particular) have been linked to increased productivity (Thomas et al., 2004). Moreover, as we saw, not having enough to eat does, at a minimum, make the poor extremely unhappy.

Provided that eating more would increase their productivity, it is unlikely that the low levels of good consumption can be explained by a simple lack of self control (that is, the poor cannot resist temptations to spend on things other than food). As we noted above, the poor also spend surprisingly large amounts on entertainment: televisions, weddings, or festivals. All of these involve spending a large amount at one time, which implies some saving unless they happen to be especially credit-worthy. In other words, many poor people save money that they could have eaten today to spend more on entertainment in the future, which does not immediately fit the idea that they lack self-control.

The need to spend more on entertainment rather than on food appears to be a strongly felt need, not a result of inadequate planning. One reason this might be the case is that the poor want to keep up with their neighbors. Fafchamps and Shilpi (2006) offer evidence from Nepal in which people were asked to assess whether their level of income as well as their levels of consumption of housing, food, clothing, health care, and schooling were adequate. The answers to these questions were strongly negatively related to the average consumption of the other people living in the same village.

Why don't the poor invest more in education?

The children of the poor are, by and large, going to primary school. However, parents are not reacting to the low quality of these schools, either by sending their children to better and more expensive schools or by putting pressure on the government to do something about quality in government schools. Why not?

One reason is that poor parents, who may often be illiterate themselves, may have a hard time recognizing that their children are not learning much. Poor parents in Eastern Uttar Pradesh in India have limited success in predicting whether their school-age children can read (Banerjee et al., 2006). Moreover, how can parents be confident that a private school would offer a better education, given that the teacher there is usually less qualified than the public school teachers? After all, researchers have only discovered this pattern in the last few years. As for putting pressure on the government, it is not clear that the average villager would know how to organize and do so.

Why don't the poor save more?

The arguments based on lack of access to credit and insurance or labor market rigidities, by themselves, do not help very much in understanding why the poor are not more interested in accumulating wealth. After all, the poor could easily save more without getting less nutrition, by spending less on alcohol, tobacco, festivals, and food items such as sugar, spice, and tea.

It is true that the poor typically have no bank accounts or other financial assets with which to save, but many of them have their own businesses, and these tend to be chronically underfunded. So why not save up to buy a new machine, or increase the stock in the shop? Moreover, as we saw above, a very substantial fraction of the poor have debt, and the interest rate on the debt often exceeds 3 percent per month. Paying down debt is therefore a very attractive way to save. Even if you have no business to grow, and have no debt to repay, just holding some extra stocks for the proverbial rainy day (or "the drought") can save both worry and the misery of watching your children go hungry. In other words, precautionary motives for saving should be especially strong for the poor.

Part of the answer is probably that saving at home is hard. The money may be stolen (especially if you live in a house that cannot be locked) or grabbed by your spouse or your son. Also, if you have money at hand, you are constantly resisting temptation to spend: to buy something, to help someone to whom you find it difficult to say "no," to give your child a treat. Such temptations may be especially hard for the poor, because many of the temptations they are resisting are things that everyone else might take for granted.

The poor seem aware of their vulnerability to temptation. In the Hyderabad survey, the respondents were asked to name whether they would like to cut particular expenses, and 28 percent of the poor named at least one item. The top item that households would like to cut is alcohol and tobacco (mentioned by 44 percent of the households that want to cut on items). Then came sugar, tea, and snacks (9 percent), festivals (7 percent), and entertainment (7 percent).

Self-knowledge does not help in addressing self-control problems; in fact, self-knowledge about a lack of self-control means that you know your saving will probably just end up feeding some future indefensible craving, and the machine for which you are trying to save will never actually be bought. Being naïve might actually help – you might be lucky and save enough to buy the machine before the temptation gets to you.

Beyond market failures and self-control problems

An interesting example that spans many of the arguments we have used above is a study by Duflo, Kremer, and Robinson (2006) on investment in fertilizer in Kenya. According to surveys conducted over several years, just 40.3 percent of farmers had ever used fertilizer, and just 25 percent used fertilizer in any given year. Conservative estimates suggest that the average return to using fertilizer exceeds 100 percent, and the median return is above 75 percent. Duflo, Kremer, and Robinson conducted field trials of fertilizer on the farms of actual randomly selected farmers, which were meant to teach the farmers how to use fertilizer and the rewards of doing so. They found that the farmers who participated in the study are 10 percent more likely on average to use fertilizer in the very next season after the study, but only 10 percent more likely – and the effects fade after the first season.

When farmers were asked why they did not use fertilizer, most farmers replied that they did not have enough money. However, fertilizer can be purchased (and used) in small quantities, so this investment opportunity seems accessible to farmers with even a small level of saving. The main issue, once again, appears to be that farmers find it difficult to save even small sums of money. The program in Kenya offered to sell farmers a voucher right after the harvest, which is when farmers have money in hand, which would entitle them to buy fertilizer later.

This program had a large effect: 39 percent of the farmers offered the voucher bought the fertilizer; the effects are as large as a 50 percent subsidy on the cost of fertilizer. The

voucher seemed to work as a commitment device to encourage saving. But a puzzle remains: farmers could have bought the fertilizer in advance on their own. Indeed, a huge majority of the farmers who bought the vouchers for future delivery of fertilizer requested immediate delivery, and then stored the fertilizer for later use. Moreover, almost all of them used the fertilizer they bought. They apparently had no self-control problems in keeping the fertilizer, even though they could easily exchange the fertilizer for something more immediately consumable.

Why don't the poor migrate for longer?

A final puzzle is why the poor do not migrate for longer periods, given that they could easily earn much more by doing so. Munshi and Rosenzweig (2005) argue that the lack of long-term migration reflects the value of remaining close to one's social network in a setting where the social network might be the only source of (informal) insurance available to people. Those who migrate for short periods of up to a few months leave their entire family, who presumably can maintain their social links, behind. However, the ultimate reason seems to be that making more money is not a huge priority, or at least not a large enough priority to experience several months of living alone and often sleeping on the ground in or around the work premises.

In some ways this puzzle resembles the question of why the Kenyan farmers do not buy fertilizer right after the harvest even though they are happy to buy (and use it) if someone made the (small) effort to bring it to their farm. In both cases, one senses a reluctance of poor people to commit themselves psychologically to a project of making more money. Perhaps at some level this avoidance is emotionally wise: thinking about the economic problems of life must make it harder to avoid confronting the sheer inadequacy of the standard of living faced by the extremely poor.

Notes

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1 For example, the "All India Rural" poverty line used by the Indian Planning Commission was 328 rupees per person per month, or $32 in purchasing power parity (PPP) dollars in 1999/2000.

2 The fact that the share spent on food, which is often seen as a physiological necessity, varies so much across countries is itself interesting. One possibility is that this represents the fact that the poor have more choice in some countries than in others, because consumption goods are cheap relative to food in some countries. For example, India, a large economy with a long history of being relatively closed, has evolved a large menu of low-cost and lower-quality consumer goods that are produced almost exclusively for the domestic market, examples include tooth-paste, cigarettes, and clothing. Other countries must buy

these goods at higher prices on the global market. If the manufactured consumer goods that the average person buys in India tend to be inexpensive relative to their traded counterparts, the ratio between the consumption exchange rate at purchasing power parity and the official exchange rate ought to be relatively low in India. More generally: the lower this ratio, the lower is the share of the consumption that should be made up of food. In our data, it turns out that the correlation between the ratio of the PPP exchange rate for consumption to the official exchange rate in 1993 and the share of expenditure spent on food is 0.33 among these 12 countries, although this sample is of course too small to support a definite conclusion.

3 The ultimate source of variation here might be the relative prices of radios and televisions. There is a strong correlation between the ratio of the purchasing power exchange rate for consumption to the official exchange rate, and the probability that a household owns a radio (the correlation is 0.36). The logic is probably quite similar to the argument presented earlier in the context of food consumption in footnote 2. Radios are tradable (they are essentially all made in China). Nontradable goods are much less costly in some countries than others, while traded goods tend to be more similarly priced, so people at the same expenditure levels at purchasing power parity can have widely differing levels of purchasing power in terms of traded goods.

4 The low level of agriculture among the extremely poor in South Africa is easily explained. The black population, which contains almost all of the extremely poor people, was historically under the apartheid regime not allowed to own land outside the "homelands," and most of the land in the homelands was not worth cultivating.

5 This result may reflect a data problem. Anthropologists do claim that they observe multiple occupations in South African households (Francie Lund, verbal communication to Angus Deaton).

6 Surprisingly, weather insurance is also essentially absent everywhere the world over (Morduch, 2006), although it would seem straightforward to provide insurance against observed weather patterns.

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REVIEW AND DISCUSSION QUESTIONS

1. What do the data collected by the authors show about the consumption patterns of the poor? What goods do the poor spend most of their money on?

2. What kind of assets and durable goods do the poor own?
3. What kind of work do the poor typically do?
4. Why do the poor tend to have multiple occupations? In what ways does having several jobs instead of just one impose costs on the poor?
5. What do the authors find about the behavior of the poor when it comes to borrowing money, saving money, and buying insurance?
6. On the basis of what you learned from the article about the economic situation and behavior of the poor, suggest a few government policies that you believe would be effective at improving the lives of the poor. Explain clearly.

pharmaceutical companies (because there is no profitable market), there must be a lot of unexplored potential. What incentives can be created to encourage private and public research of these issues? Something beyond ordinary intellectual property rights seems to be necessary: public sector investment in research and development.

Note

This paper draws on the author's experience as Chair of the Committee on the Economics of Anti-Malarial Drugs of the Institute of Medicine. The opinions expressed are strictly his and are not to be attributed to the institute or the committee. The committee will publish its report in the spring of 2004.

REVIEW AND DISCUSSION QUESTIONS

1 Why does Arrow believe that the traditional drugs used to treat malaria (such as chloroquine) will need to be replaced?
2 What are the economic obstacles to greater production and more widespread distribution of effective antimalarial drugs?
3 What "new direction" does Arrow propose to improve treatment of malaria? Do you agree with his recommendations? Why or why not?

Chapter 23

THE ECONOMIST

THE LEARNING DEFICIT

Lack of education holds much of the world back. Would more money help?

PEOPLE IN RICH COUNTRIES OFTEN have little sense of how poor the quality of education is in many developing countries. Where schools exist, there may be no teachers; and where teachers are employed, often they might as well not be, either because they fail to turn up or because, even if they do appear, they do not know how to teach. Schools may be shacks, lacking basic equipment such as desks or chairs, with few if any teaching materials such as books, paper and pencils. Up to now, much stress has been laid on raising the proportion of children who enrol in schools (and, to a lesser extent, on ensuring that they keep going once they have enrolled). But what is the point of "universal enrolment" if schools and teachers are unable to provide a decent education?

This is one of the points emphasised by Lant Pritchett of Harvard University, in a new paper for the Copenhagen Consensus project.* It is important, he argues, to concentrate on educational achievement, rather than on simpler but potentially misleading measures of success. Only in that way will it be possible to know in what way extra resources can best be deployed in improving education in poor countries, and what sort of value for money might then be expected.

There is no question that education in many third-world countries is failing. Some of the findings reviewed by Mr Pritchett are positively startling. With the exception of eastern Europe, the former Soviet Union and the East Asian tigers, the developing countries lag far behind the rich OECD countries on measures of learning achievement – and most such comparisons, remember, underestimate the gap because test results are available only for children who actually attend school, which many children in poor countries do not. Even on this basis, results show that most developing countries have levels of educational attainment that are not merely at the lower end of the range for OECD countries, but far worse than even the worst-performing rich country (which is Greece, by the way).

In the most recent assessment, only 3% of students in Indonesia had a reading competence better than the average of French students; the average Brazilian student had maths skills at the level of the lowest 2% of Danish students. Americans worry from time to time about the undeniably impressive lead that Japanese students have over students in the United States – but the gap between American students and students in Peru is fully three times bigger.

There can be no doubt that an educational deficit as wide as this is holding poor countries back, thwarting the opportunities that they might otherwise be able to exploit in a rapidly globalising world economy. What, then, can be done?

Money changes everything?

Supposing that more resources were made available – the premise of the Copenhagen Consensus project – Mr Pritchett considers four broad ways of using them. First, build more schools. Second, improve the quality of existing school systems, either by expanding budgets across the board or by increasing spending in specific target areas. These first two ideas aim to increase the supply of education. Third, raise the demand for education, either through interventions that raise living standards generally, or by fostering new opportunities for the better educated. Fourth, raise the demand for education by reducing its cost to consumers.

Mr Pritchett weighs the pros and cons of each approach. He sees some scope for making progress by targeting additional resources to particular supply-side bottlenecks. These may be important in some countries. Raising the demand for education would help even more. Economic growth is pro-education, because higher living standards do raise the demand for schooling – but, obviously, policies to raise the growth rate need not be educational policies at all in the usual sense.

In any event, all four of the "policy-action opportunities" take the overall structure of existing education systems and methods for granted. And for that reason, Mr Pritchett argues, all four are neglecting the main issue: "the problem in many countries is the way in which the production of schooling is organised." Systemic reform – involving clear objectives for the school system, adequate financing, autonomy for schools in "managing for results", and proper accountability of schools to their users – may be necessary before higher spending on any of the four policy-action opportunities can be expected to succeed.

There are many ways to press forward this kind of systemic reform, Mr Pritchett argues. Vouchers and a "market" for education might work well in some circumstances, but other approaches could achieve good results too in some cases: school autonomy (as granted to "charter schools" in the United States, for instance), decentralisation of control, community management, and the use of non-government providers, could all, Mr Pritchett argues, serve the goal of structural reform that he regards as necessary if the application of extra resources is to succeed.

One striking indication of how easy it is to spend money fruitlessly in education comes from the rich countries. According to one study cited by Mr Pritchett, Britain increased its real spending per pupil by 77% between 1970 and 1994; over the same period, the assessment score for learning in maths and science fell by 8%. Australia increased its real spending per pupil by 270%; its pupils' scores fell by 2%. Extra spending by itself is likely to be no more successful in the poor countries than it has been in the rich.

Overall expansion of education systems – the first policy-action opportunity – is likely to work well only in countries where demand exceeds supply (which would be indicated by large class sizes and children travelling great distances to school) and where new schools of good quality can be readily provided. These conditions are rarely satisfied, Mr Pritchett finds. In practice, lack of appropriate incentives for the efficient supply of education frustrates most spending initiatives, even those that try hard to spend money only where it is most needed. The most promising way forward is to embark on reforms that provide for greater autonomy and local accountability for schools. In many cases, Mr Pritchett notes, some extra financing may indeed help to facilitate those changes. But in improving education in the developing countries, additional resources are not usually the crux of the matter.

Note

* The Copenhagen Consensus project, organised by Denmark's Environmental Assessment Institute with the cooperation of *The Economist*, aims to consider, and to establish priorities among, a series of proposals for advancing global welfare. The initiative was described in our Economics focus of March 6th. That article can be read along with other material, including an Economics Focus on armed conflicts, published this week in our print edition. A book, "Global Crises, Global Solutions", containing the full set of papers written for the project is forthcoming from Cambridge University Press.

REVIEW AND DISCUSSION QUESTIONS

1 Why might building more schools or sending more children to school have a limited impact on economic development in poor countries?
2 What kind of reforms does Pritchett suggest to increase the effectiveness of educational investments?
3 Do you agree with Pritchett's recommendations? Why or why not? Explain.

Chapter 24

Clive Crook

THE TEN-CENT SOLUTION

First principles

Cheap private schools are educating poor children across the developing world – but without much encouragement from the international aid establishment.

IF GOOD IDEAS WERE ALL THAT MATTERED, everybody who has heard of Jeffrey Sachs would have heard of James Tooley as well – but they aren't, and you almost certainly haven't. In fact, even if you are keenly interested in education, aid, or Third World development, which are Tooley's areas of research, you still probably haven't heard of him.

This is not because his work is dull or unimportant. His findings are surprising, and they bear directly and profoundly on the relief of extreme poverty all over the world. (Name me a more important issue than that.) The reason you haven't heard of James Tooley is that his work is something of an embarrassment to the official aid and development industry. He has demonstrated something that many development professionals would rather not know – and would prefer that you not know, either.

Tooley is a professor of education policy at England's University of Newcastle upon Tyne. Several years ago he was working as a consultant in Hyderabad, India, for the International Finance Corporation, an arm of the World Bank. One afternoon, while wandering around the alleys beside the Charminar (a sixteenth-century monument and Hyderabad's best-known tourist attraction), he came across a school for the children of slum dwellers. To his surprise, he found that this was not a state school but a private one – providing education to the extremely poor and collecting fees (of a few rupees a day, or less than a dime) for its services. Intrigued, he kept looking, and found other, similar schools. They were typically small and shabby operations, sometimes occupying a single classroom, staffed in some cases by just the teacher-proprietor and an assistant. Yet they were busy – crowded with eager pupils – and the teacher was actually teaching. (This, Tooley knew, was not something you could take for granted in the classrooms of Indian public schools.)

For years education officials in most developing countries (and workers in international aid agencies, too) have talked as though private education for the very poor barely existed. The only hope for equipping these unfortunate people with basic literacy and numeracy, they've said, was to improve the reach and quality of free, compulsory, state-provided schooling.

But that hope appears dim at the moment. Public schools in most poor countries, where they operate at all, have long been recognized to be ineffective. Teachers are frequently unqualified for their work. Perhaps worse, they are often uninterested in it: In many poor countries, teaching jobs are viewed as sinecures, and many teachers are disinclined to show up for work at all. They do tend to organize, however. Their salaries add up, and public schools in most developing countries make heavy demands on the public purse. The whole issue has therefore been seen as a daunting question of resources: Vast sums will be required to provide free universal education of tolerable quality in Africa and South Asia; there is no cheap alternative; and the help of foreign donors will be essential.

The many fee-based slum schools that Tooley saw within a few minutes' walk of the Charminar made him wonder about all this. So he began researching the reach and performance of private schools for the extremely poor in India and elsewhere, supported not by an official agency but by the private Templeton Foundation. What he found was startling.

In Hyderabad, a city of more than 6 million people, Tooley and his team – confining their search to poor areas lacking amenities such as running water, electricity, and paved roads – counted 918 schools. Only about 40 percent were run or financed by the government; 60 percent were private. Of those, some were "recognized" by the government, but most were officially unknown to the authorities. These black-market private schools were smaller on average than the other kinds – but they still accounted for about a quarter of all the children in any sort of school. Remarkably, some of the slots in these private slum schools were offered free or at reduced rates: The parents of full-fee students, desperately poor themselves, willingly subsidized those in direst need.

This flourishing educational enterprise is all the more surprising once you understand that India has deliberately discriminated against private education – forbidding for-profit schools, for instance, and requiring schools to be run as trusts rather than proprietorships, and limiting their ability to borrow. Despite these handicaps, private education for the very poor has evidently thrived.

What Tooley stumbled onto in Hyderabad turns out to be typical not just of India but of all the other places he subsequently researched – including parts of China, Ghana, Kenya, and Nigeria In every case, private education is a principal lifeline for the abjectly poor. In the areas of Ghana and Nigeria that Tooley's team has canvassed, an outright majority of poor children are attending private schools run without support from the government. Often, the schools are run by just a few teachers. They put out shingles in the way that physicians do in the United States, and are paid directly by their charges.

As Tooley relates it, the response of the international development community to his research has been less than enthusiastic. Even if private schools are much more prevalent than we had previously thought, he's been told, they are obviously no good. Standards in such schools are bound to be low.

But the development community seems to be wrong about that, too. On the whole, dime-a-day for-profit schools are doing a better job of teaching the poorest children than the far more expensive state schools. In many localities, private schools operate alongside a free, government-run alternative. Many parents, poor as they may be, have chosen to reject it and to pay perhaps a tenth of their meager incomes to educate their children privately. They would hardly do that unless they expected better results.

Better results are what they get. After comparing test scores for literacy and basic math, Tooley has shown that pupils in private schools do better than their state-school equivalents – at between a half and a quarter of the per-pupil teacher cost. In some places, such as Gansu, China, the researchers found that private schools serving the poor had worse facilities than comparable state schools; in Hyderabad, they were better equipped (with blackboards, desks, toilets, drinking water, and so on). Regardless, the tests so far show that private-school students do better across the board.

Why have these findings been so reluctantly received? The answer is politics. The consensus on economic development – specifically, on the role of the state in promoting growth – cycles to and fro. At the moment, orthodox thinking embraces a leading role for the market in most areas of economic life. But in most developing countries, as in many rich ones (including the United States), schooling is widely regarded as quite another matter. Children's education is higher than commerce. These realms must not be allowed to mix. Many development and education officials wish to enshrine free education as a universal human right. Education, in other words, is too important to be left to the market.

In this view, if state schools are failing, which nobody denies, they need to be fixed, whatever the cost. And this is how the challenge of education in developing countries is currently framed: Governments need to spend more on their schools. One could more easily sympathize with that view if the state systems were easily fixable. In many developing countries, certainly in India, it would be unrealistic to think so, even if one could say, "Hang the expense." The problems seem systemic, not fiscal.

Most of those who campaign for greatly increased aid to poor countries would wish to see governments spend much of that money on state-run schools. The goal is admirable, but the method may be counterproductive. Tooley's research suggests that small-scale support for private slum schools – through scholarship programs, backing for school-voucher schemes, or subsidized microfinance – might do far more good than a big aid push directed at government-run education.

Tooley has been publishing his research in education journals but has also written for libertarian and conservative think tanks. Unfortunately, these associations have pushed him further outside the development mainstream. Perhaps most alienating, his findings (as he notes) conform very well to the views of the late Milton Friedman, who spent the last years of his life arguing that publicly funded vouchers and a market of privately run competing schools were the way to fix another education system in urgent need of repair: America's. All the more reason why, so far as some development officials are concerned, Tooley's obscurity is welcome.

As for Tooley himself, he is now moving beyond research alone, preparing to embark on a new project: the management of a new $100 million fund to invest in private schools for the very poor in developing countries. Development professionals need not be concerned, however. The money is from a private foundation. It won't waste any country's aid budget.

REVIEW AND DISCUSSION QUESTIONS

1. Why does black-market private education appear to be so common in developing countries?
2. Why does the author believe that the "official aid and development industry" prefers that the results of Tooley's research not be known?
3. Do you agree with Crook's suggestion that supporting small private schools in developing countries may be a better idea than strengthening public education? Why or why not? Explain.

Chapter 25

THE ECONOMIST

A WORLD OF OPPORTUNITY

Developing countries see the point of higher education.

ACROSS THE DEVELOPING WORLD, higher education is coming in from the cold. Gone are the days when it was purely a luxury for the elite. Governments are rapidly expanding their higher-education systems, with China probably witnessing the biggest expansion of student numbers in history. They are trying to create centres of excellence and throwing open the sector to private entrepreneurs.

The main reason for this flurry of activity is the dramatic growth in the supply of potential students. Secondary school enrolment rates have grown rapidly across the developing world. But there has also been a revolution in economic thinking. Not so long ago the World Bank pooh-poohed spending on higher education as both economically inefficient and socially regressive. Now many development economists are warming to higher education, pointing to the demand for graduates – as demonstrated by their wage premium – and to the positive effect of university-based research on the economy.

Nobody doubts the difficulty of building decent universities in the developing world. In most countries the legacy of colonialism has been compounded by the legacy of anti-colonialism. Colonialism meant that universities concentrated on producing a tiny group of elite administrators, and anti-colonialism tightened their bonds with government.

Public spending on universities in developing countries is highly regressive. In Latin America the professional classes, who account for 15% of the population, take up nearly half of all university places. In Rwanda, 15% of the total education budget is spent on the 0.2% of students who attend universities. Most universities in the developing world are also hopelessly badly managed.

But there are a few bright spots on the horizon. Some universities in poorer countries have been doing world-class research. The botany department of the University of São Paulo, for example, was first to crack the genetic code of a bacterium called *Xylella fastidiosa*, which has been laying waste to vineyards in southern California. This work attracted global funding as well as attention from, among others, America's Department of Agriculture and the American Vineyard Foundation.

A second bright spot is that good management can produce striking improvements. Uganda's Makerere University, which in the late 1980s was on the verge of bankruptcy, has increased its student numbers fivefold and is investing in its infrastructure. It has introduced fees for 80% of its students, and now generates a third of its revenue from a variety of commercial ventures such as a bakery and an in-house consultancy.

A third cause for cheer is the proliferation of different kinds of universities. A few years ago most universities in the developing world were much the same: designed for the elite and dominated by the state. Now there is more variety. The biggest change is the emergence of a for-profit sector that concentrates on subjects such as accounting and computer skills, and often pioneers educational innovation.

What are the prospects that the good news will outweigh the bad? To answer this question, it is worth looking more closely at the two countries that are currently conducting the world's biggest experiments in the "massification" of higher education: India and China.

India's higher-education system has plenty of inherited handicaps. Some of them are left over from colonialism and some from anti-colonialism; some arise from poor management and political confusion. B.S. Baswan, the country's secretary for secondary and higher education, notes that his sector lacks a clear political constituency. Yet the problem is deeper than that: the government does not have the resources to fund the expansion it wants, but cannot summon up the political courage to start charging students realistic fees. The result is that India often seems to take one step back for every two steps forward.

Undoubtedly, though, it is making advances. The number of people attending universities almost doubled in the 1990s, from 4.9m to 9.4m. The price of this has been a decline in overall quality. That said, India has two valuable things going for it. One is its collection of elite institutions. For decades, India has been pouring resources into the All India Institute of Medical Sciences, the Indian Institute of Science in Bangalore and, above all, the Indian Institutes of Technology. These institutions take their pick from an army of candidates every year, with 180,000 hopefuls taking the screening test for around 3,500 places in the seven IITs. They provide a highly intensive education, with all students and often professors too living on campus. And they produce a stream of highly educated people who help to set professional standards. "They are a class apart, like Oxford and Cambridge," says P.V. Indiresan, an expert on universities.

These elite institutions help to keep India plugged into the global knowledge economy. R.S. Sirohi, the former director of IIT Delhi, explains that he used to give his staff long sabbaticals in western universities, and that about a third of them spend time in America every summer. His institute receives sponsorship for research from multinationals such as Sun Microsystems, Cisco, Volvo and Ford. Granted, the elite institutions produce many people who get brain-drained away, but they also keep many bright people from emigrating, and may even attract émigrés back if India's economy keeps booming. It is accepted wisdom in India that the brightest students go to the IITs and the second-best to American universities.

India's other big advantage is a more recent development: a booming private sector. This being India, the sector is plagued by scandal. In February, India's Supreme Court ordered the closure of nearly 100 private universities because of quality concerns. Still, the best private colleges are doing admirable work, responding to unmet demand for technical and managerial education, often in highly creative ways, correcting India's bias towards theoretical education, and encouraging entrepreneurs to pour millions into a sector that has traditionally been starved of funds.

Vinay Rai, a telecoms and steel magnate, is just such an entrepreneur. Rai University bills itself as "India's best private university", with 16 campuses across the country. Mr Rai wants the university to fill a gap in the market, and sees huge demand for education in practical subjects such as management, media, accounting and tourism. But he is interested in more than just tapping a booming market, pointing out that half his students are on scholarships. He wants to shift from training obedient clerks towards training self-starting entrepreneurs. He waxes lyrical about the "beautiful model" of higher education he encountered in America at the Massachusetts Institute of Technology.

The contrast between Rai University's main campus in Delhi and that of Jawaharlal Nehru University, one of India's most distinguished public universities, is striking. Rai University is spick and span whereas JNU is sprawling and untidy. Rai is full of computers, whereas JNU is resolutely low-tech. Rai's students are determined to take part in the global economy, whereas JNU is plastered with signs protesting against the evils of capitalism.

A growing band of successful private companies are pioneering the democratisation of technical education. NIIT, a computer-training company, has 40 wholly owned centres and more than 1,000 franchised operations, and is expanding to America and Britain. It has also established a research-and-development department to discover the most effective teaching methods. One of its cleverest ideas was to give illiterate children free access to computers in order to see how easily they could master them. It has also established links with Citibank to enable students to take out loans to pay fees. The company has become such a brand name that some advertisements in the matrimonial pages of the *Times of India* specify graduates of NIIT.

China enrols the market

In higher education, as in so much else, China is visibly pulling ahead of India. The Chinese are engaged in the biggest university expansion in history. In the 1980s, only 2–3% of school-leavers went to university. In 2003, the figure was 17%. The watershed year was 1999, when the number of students enrolled jumped by almost half. The expansion at the doctoral level is even faster than for undergraduates: in 1999–2003, nearly 12 times as many doctorates were awarded as in 1982–89. And there is more to come: the number of new doctoral students jumped from 14,500 in 1998 to 48,700 in 2003.

The Chinese are determined to create a super-league of universities to rival the best in the world. The central government is investing heavily in chosen universities, such as Peking, Tsinghua and Fudan, offering higher salaries and more research funding. The state governments are doing likewise. It is no accident that the most widely used annual ranking of the world's research universities, the Shanghai index, is produced by a Chinese university.

What lies behind all this is a gigantic exercise in technology transfer. The Chinese are trying to recreate the best western universities at home in order to compete in more sophisticated industries. They have stocked up with foreign PhDs: in some departments of the University of Peking, a third of the faculty members have American doctorates. They are using joint ventures with foreign universities in much the same way as Chinese companies use joint ventures with foreign companies.

The Chinese have no qualms about using market mechanisms to achieve this technology transfer. Tuition charges now make up 26% of the earnings of public universities, nearly twice the level in 1998; many professors are paid according to the number of students they attract; and China is creating a parallel system of private universities alongside the public ones. For example, the University of Peking has more applicants than places, so it has created a parallel university that charges higher fees and accepts slightly less able students. Links between universities and industry are commonplace. The majority of doctorates earned in China between 1992 and 2003 were in practical subjects, which attract the brightest students: engineering (38% of the total), natural sciences (22%) and medicine (15%).

But will China achieve its academic ambitions? The trouble is that investment will not do the trick without broader cultural changes. Rui Yang, a professor at Australia's Monash University, points out that academic corruption is rife. The powerful academies that distribute much of the research funding are prey to both political favouritism and lobbying. Plagiarism is commonplace. Many academics use a good part of their research funding for personal rather than academic ends.

The country's authoritarianism will also prove a limiting factor, affecting not only the humanities but the sciences as well. For example, Chinese scientists suppressed information on SARS because it contradicted the official line. A world-class university without freedom of thought is still a contradiction in terms.

REVIEW AND DISCUSSION QUESTIONS

1. What recent changes in the higher educational systems of developing countries make investments in higher education increasingly attractive?
2. In what ways has higher education in India improved recently? What problems still remain?
3. What problems does the higher educational system in China still face?
4. Do you agree that "broader cultural changes" are needed for China to achieve its goal of creating world-class universities? Why or why not?

Chapter 26

Martha Nichols

THIRD-WORLD FAMILIES AT WORK
Child labor or child care?

JONATHAN STEIN, the new vice president of international contracts for Timothy & Thomas North America, shifted restlessly in his plane seat. During his two-month swing through Asia, he'd been on more planes than he could remember, many of them far more uncomfortable than this flight back to Boston. But he couldn't forget the Pakistani girls who had looked no older than ten years old, sweeping the floor between the rows of sewing machines the women worked on.

In that plant in Lahore, the women and girls had been hard at work assembling T&T shorts – currently the hottest item in Timothy & Thomas's 40-year-old line of casual clothes. Like the rest of the company's products, the shorts had that wholesome American "feel good-look good" image.

But that image didn't fit the image of those girls at work, and the contradiction left Stein with a quandary. In keeping with Timothy & Thomas's reputation for social responsibility, the company's new Global Guidelines for Business Partners prohibited the use of child labor – with "child" defined as anyone under 14 or the compulsory school age. Until his trip to Asia, Stein had felt good about working for a company that valued employee empowerment and diversity. Yet when it came to Pakistan and other developing countries, he'd found the company's policies no help at all.

In Lahore, Stein had enjoyed the city itself, which was a thriving textile and market center. Its colorful bazaar, wedged between the opulently wealthy and extremely poor districts of the city, was full of silks and the hand-embroidered clothing Lahore was famous for. He had liked the desert landscape and bright white walls, all backed by a cold blue sky. When Stein first met Timothy & Thomas's Pakistani sourcing manager, on a taxi ride to one of the local plants, he was still distracted by so many new sights.

"I should warn you," said Yusuf Ahmed, the sourcing manager, just minutes after shaking Stein's hand. "There's some confusion about the guidelines."

Stein stopped admiring the scenery. "What do you mean?"

"All the good contractors use kids. The little girls come to the plant with their mothers, and I know there are others on the machines who are younger than 14. That's just how it's done here."

"Haven't you told them they have to do it differently?" Stein's hands tensed on his knees. The taxi jounced through the narrow streets, no longer surrounded by the picturesque overflow from the bazaar.

"I'm not a cop," Ahmed said. "Besides, I'm not sure you'd really want me to do that. The situation is more complicated than you think."

"What's complicated? You say contractors aren't in compliance, so we threaten to cut off the contracts until they are."

Ahmed leaned forward impatiently. "Do you realize how committed we are? We've got the Lahore contractors alone assembling half a million T&T products a year – at competitive prices, I can assure you."

"I know the numbers," Stein said. "But that doesn't change the guidelines. We can't have kids in the plants, right?"

Ahmed wiped his brow. He looked more than hot under his neatly pressed collar and dark tie. Although he had gone to the University of Pennsylvania and worked in the United States, Yusuf Ahmed had been back in Pakistan as Timothy & Thomas's sourcing manager for the past two years.

"We're lucky to have these guys, if you want the truth," Ahmed said. "Our contractors produce on time and with good quality, which is no small feat. They could set up somewhere else, but in their heart of hearts, many of these guys want to stay in Pakistan, to improve the quality of life a little bit, if they can, by bringing in jobs. Then here we come, the big company from the United States, saying we won't buy what they produce unless it comes incredibly cheap, but of course they have to follow our company guidelines, even if it means that their costs go up –"

"Hold on," Stein broke in. "We have contractors in other countries who are complying with the guidelines, and they seem to be producing just fine."

Now the sourcing manager looked more tired than angry. "Sure. If we ask them to, the contractors here will fire any kids who are under 14. But that will affect at least 60 families, all of them very poor in the first place, do you realize that? And the contractors will still want assurances from us. These guys will want to know that we'll pay our share, even if the price goes up and we have to renegotiate the contracts."

"How much are we talking about?" Stein asked.

"The young kids who come with their mothers do more than you think. They are paid nothing, of course." Ahmed said. "Even the older ones on the machines get paid subminimum wages as trainees, so labor will go up by at least a third to pay adults minimum wage – or more for skilled work. Or if our contractors stick with the kids, they'll have to document that they're really 14. In Pakistan, you can't count on birth registrations, and I'm sure you've seen enough in Asia to know that most kids look younger than their real age."

"So how could you tell they were too young?"

"You can tell." Ahmed shrugged. "With some it's hard, and maybe the only way to be certain is to have a doctor examine them. The children themselves will lie. They'll say they're 14, because they need the work. What are their alternatives, really? They can hire themselves out as maids for almost nothing, or spend hours on embroidery at home, work that is not regulated at all. Or they can go to a carpet factory, would you like that any better?"

Stein shook his head. "I don't feel good about any of this."

The sourcing manager turned away. "I can't help you there. I don't agree with the guidelines, you know, but since I work for the company, I'll do what I'm told." Ahmed lit a cigarette and stared out the taxi's dirty window. "Forgive me for being blunt, but sometimes I don't know what you managers in Boston are thinking about, I really don't. As far as I'm concerned, imposing American values on the Third World just creates more problems. You have no idea what it's like to live in Pakistan, do you?"

"That's why I'm here."

"For one week. Fine. Then let me tell you about the reality. You don't know what those kids want." Ahmed unrolled the window. He raised his voice above the raucous street sounds outside. "We're not just talking about Pakistan. You can go to Bangladesh, Sri Lanka, Brazil, Mexico, the Azores – you're a Timothy & Thomas man, so you know what I mean. You can go all over the world and find street kids hustling and trying to make some money. Don't you think any of them would rather be working for one of our contractors? I'd say we're doing everyone here a favor."

Stein didn't answer, since by then the taxi had screeched to a halt. However, at the first plant they visited, he still felt uneasy. All of the workers on the floor were girls or women, because working side by side with men was considered improper. Ahmed had explained that this plant owner provided separate buses to bring the women to work. Farhan Hanafi, who led them on a tour of the plant, also made clear to Stein that he provided meals for his workers and wages of 5,000 rupees a month, or about $200, for the skilled women – much more than the minimum wage of 1,200 rupees, Hanafi insisted.

The plant floor wasn't dirty or overcrowded, but there was no heat. The women wore layers of long blouses over thin flowing pants, and many of their heads were covered with brightly woven shawls. Their bare hands, reddened in the cold room, still moved deftly around the mechanical needles, pushing the pre-cut pieces of cloth forward. He saw small girls winding thread on sewing-machine spools for their mothers. Some older girls squatted near piles of patterns and cast-off cloth, stacking and sorting, talking as they worked. They only became silent when Stein and the other men moved closer.

Yusuf Ahmed asked one of the girls some questions in Punjabi. The girl kept her head bowed down and answered in a low voice, shrugging her thin shoulders as she spoke. The girl was about the same height as Stein's eight-year-old daughter, and he had always considered Jessica small for her age.

"She says she likes to work here." Ahmed glanced at the plant owner. "Mr. Hanafi is very kind to them and pays them very well. They have a roof over their heads, and they can keep their hands clean. She's old enough, she claims, because all her friends are here, and they are all the same age. They are all very good workers, she wants Mr. Hanafi to know this."

"But why aren't they in school?" Stein asked.

"The families need them to work," Ahmed said. "I think at least half of the kids in Pakistan don't make it to primary school, and it's more important for boys to get an education, if the families can afford it."

Ahmed's answer depressed Stein even more. Based on the rest of his Asian trip, he knew conditions in this particular Pakistani plant weren't bad. He told himself that the workers were probably grateful for walls that kept out the grit and dry wind outside, for decent lighting and a clean concrete floor. Lahore wasn't Calcutta, of course, but Stein remembered the crowds of people in the poor district outside the plant, many sleeping or begging in the dirt. They had rolled to the side just in time when their taxi honked through. The women were probably glad to have their young daughters inside with them, where the girls could also be useful.

But Stein imagined *60 Minutes* sinking its teeth into this story – a real exposé of how those popular T&T shorts, brought to you by lovable, reliable Timothy & Thomas, were stitched together by poor Pakistani kids. It wouldn't play well in Poughkeepsie.

Now, on the plane back to Boston and company headquarters, Stein twisted around in his seat, trying to get comfortable. If he didn't renew the Lahore contracts, the girls and their families would lose a major source of income. Or was that just a convenient rationale for looking the other way? After all, adhering to the company guidelines would send production costs for the T&T line, at least temporarily, through the roof. Timothy & Thomas's clothing empire was now scrambling to keep its edge in the North American and European markets. There were U.S. warehouses and stores depending on shipments of T&T products, Stein thought. A high volume of shorts and blouses that, to date, had been produced quickly and cheaply by the contractors in Lahore.

The Pakistani girls posed the first test of the Global Guidelines for Business Partners. Yet being on the cutting edge of company policy just made his decision more difficult. Jonathan Stein realized that he was now responsible for the outcome. Unfortunately, all the talk of values and social responsibility in the world didn't erase the bottom line.

Note

HBR's cases are derived from the experiences of real people and real companies. As written, they are hypothetical, and the names used are fictitious.

REVIEW AND DISCUSSION QUESTIONS

1. Who is Jonathan Stein, and what problem does he run into during his trip to Lahore, Pakistan?
2. What reasons does Yusuf Ahmed give to explain his reluctance to enforce T&T's guidelines on child labor?
3. If Jonathan Stein and T&T are serious about being "socially responsible," what should they do about the Lahore plant? Suggest a specific course of action and discuss the implications for Pakistan's economic and human development.
4. What can the governments of developing countries do to eliminate child labor? How can the governments of rich countries help? Suggest specific policies and indicate any pros and cons.

Chapter 28

Eric V. Edmonds and Nina Pavcnik

CHILD LABOR IN THE GLOBAL ECONOMY

POPULAR OPINION IN HIGH-INCOME countries often seems to hold that child labor in developing countries is nearly always a form of child abuse, in which children work in hazardous conditions in run-down factories for callous businesses. There have been recent attempts to combat child labor by lowering employment opportunities for children through harmonized international child labor standards and by consumer boycotts of products produced by child laborers. The U.S. Congress has repeatedly considered legislation that would prohibit imports into the United States of all products made with child labor. Under threat of such sanctions, export oriented garment factories in Bangladesh released more that 10,000 child workers under the age of 14 in the mid-1990s. More recently, the U.S. House of Representatives has deliberated the "Child Labor Elimination Act," which would impose general trade sanctions, deny all financial assistance, and mandate U.S. opposition to multilateral credits to 62 developing countries with a high incidence of child labor. This threat is implicit in a 2002 act of the U.S. Congress that mandated a study by the Department of Labor's Bureau of International Labor Affairs about the relationship between military and education spending in countries with a high incidence of child labor.

But in fact, the broad term "child labor" covers a considerable diversity between and within countries in the types of activities in which children participate. Fortunately, abhorrent images of children chained in factories or forced into prostitution stand out for their relative rarity. Most working children are at home, helping their family by assisting in the family business or farm and with domestic work. This paper begins by quantifying the extent and main characteristics of child labor. It then considers the evidence on a range of issues about child labor. Fundamentally, child labor is a symptom of poverty. Low income and poor institutions are driving forces behind the prevalence of child labor worldwide. As a result, some economic events or policies can have ambiguous effects on child labor; for example, a country that experiences an increase in labor demand, perhaps because of globalization, may experience greater demand for both adult and child labor.

However, the greater demand for adult labor can raise family incomes in a way that tends to reduce child labor. The final section assesses the policy options to reduce worldwide child labor. While some children do work in circumstances so hideous as to command immediate attention, development is the best overall cure for child labor. However, historical growth rates suggest that reducing child labor through improvements in living standards alone will take time. If a more rapid reduction in the general incidence of child labor is a policy goal, improving educational systems and providing financial incentives to poor families to send children to school may be more useful solutions to the child labor problem than punitive measures designed to prevent children from earning income.

What is child labor?

Estimating the number of children working around the world is a difficult task. Most working children live in low-income countries. These countries often lack reliable data on many aspects of their labor market. Even more difficult, some policymakers have until recently defined "child labor" as economic activities that are deleterious to the well-being of children. There are some situations where it is hard to imagine how an activity could not be harmful to the child -- forced prostitution, child soldiers – but as we will discuss, these activities are very rare. Most working children participate in activities that can be harmful or beneficial for the child, depending on the circumstances of the activity, and ultimately, the impact of child labor on the well-being of the child depends on the counterfactual of what the child would be doing in the absence of work.

Thus, rather than assuming that all child labor is by definition harmful to children, it is more useful to define child labor as including *all aspects* of child work and then study the effects of that work. Recent policy documents have taken this broad approach, often identifying certain occupations such as prostitution, stone quarrying and rag picking as "hazardous" or "exploitive" and monitoring them separately.[1] Article 4 of International Labor Convention 182 on the worst forms of child labor establishes this precedent by encouraging countries to decide for themselves what specific activities need to be tracked and targeted independently for policy while allowing for a more general definition of child labor.

Survey evidence on child labor

The ILO's Statistical Information and Monitoring Program on Child Labor (SIMPOC) most recently estimated that 211 million children, or 18 percent of children 5–14, are economically active worldwide (ILO, 2002). A child is defined as economically active if he or she works for wages (cash or in-kind); works in the family farm in the production and processing of primary products; works in family enterprises that are making primary products for the market, barter or own consumption; or is unemployed and looking for these types of work. The academic literature also uses the phrase "market work" to refer to these activities (with the exception of unemployment).[2] The estimated 211 million economically active children correspond to 18 percent of the world's population of 5–14 year olds. Sixty percent of these working children are in Asia, and 52 percent are boys. While 23 percent of economically active children are believed to be in sub-Saharan Africa, participation rates are highest there with an estimated 30 percent of children 5–14 working. Most economically active children are in low-income countries, but SIMPOC estimates that 4 percent of children are working in transition economies and 2 percent work in what it terms "developed" economies.

These SIMPOC counts are based wherever possible on existing household based survey data. These data are typically collected in three different types of surveys. Labor force surveys, especially child labor force surveys often assisted by SIMPOC, collect detailed information on the different types of work in which children participate. However, they usually do not provide information about time in school and studying, nor other aspects of the household. Multipurpose household surveys often offer greater details about the child's family environment at the expense of sample size and detail about the activities performed by children. Population censuses typically offer little detail about the activities of children and the activities of the family, but their large sample sizes are useful for identifying smaller population groups.

These data sources are increasingly becoming available to researchers and hold considerable promise for improving our understanding of why and how children work.[3] However, the data are in general frustratingly incomplete. Information on the domestic activities of children is unusual, and detailed data on time in school and time studying is generally not available. Moreover, a high fraction of children report neither attending school nor working in market or domestic work, and these so-called "idle" children are not well understood. Thus, in the available data, it is very hard to establish what children would do in the absence of participation in a particular type of work and therefore very difficult to evaluate the consequences of work for children.

Who employs children?

Contrary to popular perception in high-income countries, most working children are employed by their parents rather than in manufacturing establishments or other forms of wage employment. In 2000 and 2001, UNICEF coordinated detailed household surveys with virtually identical questionnaires in 36 low-income countries as a part of UNICEF's End of Decade Assessment. Table 28.1 tabulates participation rates in market work and domestic work for 124 million children from these 36 countries. Of the 25 percent of children ages 5–14 that participate in market work, few work outside of their own household. Less than 3 percent of children age 5–14 work outside of their household for pay, and this work for pay is actually more common in rural settings than in urban centers where manufacturing is generally located. In addition, 6 percent of children participate in unpaid work for someone outside of the child's household. We suspect that most of these children are involved in unpaid labor exchanges where neighboring families help one another in their business or farm, but these unpaid workers may also be children who are paid in-kind with meals or food (the questionnaire is unclear), or the work relationship may involve apprenticeships, children fostered out (that is, receiving food and board with another family in exchange for work), children held in bondage (that is, where the child's family has received a cash payment or bond that the child must work off) and children who work in their schools. The minimal incidence of wage employment in these UNICEF surveys concords with other datasets from countries as diverse as India, Nepal, South Africa and Vietnam, where it is unusual to find more than 3 percent of children 5–14 working outside of the household for pay. Even in urban Bangladesh, where much attention has been paid to child labor in the garment industry, a 2002 child labor survey found only

Table 28.1 Participation rates in various activities for 124 million children 5–14 from 36 countries in 2000

	All children	*Age*		*Gender*		*Location*	
	5–14	*5–9*	*10–14*	*Male*	*Female*	*Urban*	*Rural*
Market work (MAR)	25.0	15.3	35.2	26.6	23.3	18.9	30.5
Paid	2.4	1.0	4.0	2.8	2.0	2.2	2.5
Unpaid	5.8	4.4	7.3	5.6	5.9	4.0	7.3
Family	20.8	12.4	29.7	22.4	19.1	14.8	26.2
Domestic work (DOM)	64.6	50.8	79.2	59.3	69.9	60.7	67.4
Any work (MAR + DOM)	68.4	53.5	84.3	64.8	72.1	64.1	71.7
20 or more hours per week	20.7	10.3	31.8	19.4	22.1	14.1	26.4
40 or more hours per week	6.4	2.7	10.3	6.1	6.7	3.6	8.8

Notes: Each cell contains participation rates in indicated activity in the last week. Children may participate in multiple activities. *Paid* refers to children who worked outside of their household for wages in the last week. *Unpaid* refers to children who worked outside of their household in the last week without pay. *Family* refers to children that worked in their family business or farm in the last week. *Market work* indicates that the child participated in paid, unpaid or family work. *Domestic work* indicates that the child participated in household chores in her own household in the last week. *Any work* indicates that the child participated in market work or domestic work in the last week. UNICEF's summary statistics available at <http://www.childinfo.org> report a higher incidence of unpaid work outside of the child's household. The discrepancy may owe to a missed change in coding in the Angolan and Kenyan data and shows up as a slightly higher incidence of working children in UNICEF summary statistics than those presented.

Source: Authors' calculations from UNICEF Multiple Indicator Cluster Survey End of Decade Assessment microdata: <http://www.childinfo.org/MICS2/MICSDataSet.htm>. Countries included are Albania, Angola, Azerbaijan, Bolivia, Bosnia and Herzegovina, Burundi, Cameroon, Central African Republic, Chad, Comoros, Côte d'Ivoire, Democratic Republic of Congo, Dominican Republic, Gambia, Guinea Bissau, Guyana, Kenya, Lao People's Democratic Republic, Lesotho, Madagascar, Moldova, Mongolia, Niger, Philippines, Rwanda, São Tome and Principe, Senegal, Sierra Leone, Sudan, Swaziland, Tajikistan, Togo, Trinidad and Tobago, Uzbekistan, Venezuela and Vietnam. Individual country means are weighted to reflect survey design and are weighted by 5–14 population totals in computing cross-country means. Population 5–14 estimates are from <http://esa.un.org/unpp/index.asp?panel=2>, medium variant, 2000.

1.2 percent of children 5–14 working as paid employees. In contrast, 20.8 percent of children 5–14 in countries surveyed by UNICEF work in their family business or farm. Participation rates in this category are highest in rural areas, but 14.8 percent of urban children 5–14 work in a family business or farm.

Most economically active adults in low-income countries work in agriculture (Food and Agricultural Organization (FAO), 2004). Most children work side by side with their parents. Thus, most economically active children are employed in agriculture. Consider the findings of a particularly well regarded and detailed labor force survey conducted in

Nepal in 1999 (Central Bureau of Statistics, 2000). In Nepal, 85 percent of economically active children are in agriculture. The domestic service industry is the next largest employer, with roughly 10 percent of economically active children, while manufacturing accounts for only about 1 percent of economically active children. Although we are not aware of any global estimates of the distribution of working children by industry, agriculture is the dominant sector of employment in nearly every example that the authors have encountered. For example: in Cambodia, 73 percent of economically active children are in agriculture in 2001; Ethiopia, 89 percent in 2001; Guatemala, 63 percent in 2000; Kenya, 77 percent in 1998; Morocco, 84 percent in 2000; Pakistan, 67 percent in 1996; Vietnam, 92 percent in 1998; and Yemen, 92 percent in 1998.[4] Children perform a variety of tasks in agriculture. At young ages, they can be effective in caring for animals and in tasks such as weeding that do not require a developed physical stature.

The help children offer their families is not limited to market work – a majority of children also perform domestic duties within their own household. Table 28.1 suggests that almost 65 percent of children age 5–14 report participation in domestic work. Altogether, then, 68 percent of children 5–14 report working in either market work or domestic work. The participation rates are especially high among older children age 10–14, girls and children in rural areas. Children, particularly older ones, devote substantial time to work. Thirty-two percent of children 10–14 report working 20 or more hours per week; over 10 percent working more than 40 hours per week. Girls are more likely to work long hours than are boys (largely because of the additional domestic work performed by girls in most cultures), and the prevalence of all types of work, including over 40 hours per week, is higher in rural areas than in urban areas.

It has been sometimes argued that for a child to work outside of the household is fundamentally different and likely to be more hazardous than when a child works inside the household – especially when the work is domestic in nature. This conclusion is not obvious, as work outside of the household is typically more visible. Moreover, a number of researchers have emphasized that a decision to exclude domestic duties in the analysis of child labor can be misleading. Consider the example of the average 14-year-old girl living in rural Nepal. She works about 35 hours per week. She spends 19 hours of that time in market work, largely in agriculture for her family, and nine hours helping her family with domestic work, including cooking, cleaning, caretaking, shopping and minor repairs on home items. She does not work for pay. Her remaining work time is divided among an array of activities, but gathering firewood and collecting water are two of her more time- and physically-intensive obligations. Her domestic duties create time tradeoffs that are very similar to her time spent working in agriculture for her family.

Indeed, there is often a substitution pattern between market and domestic work; for example, if a parent leaves the household to work for a local employer, a child may take over many household roles, like collecting wood and water, tending to animals, preparing foods and meals, or caring for family members. This substitution pattern between hours worked in market and domestic work is, for example, evident in the data in Vietnam and Nepal for children working extreme hours in either category of work (Edmonds, 2003). In addition, for most children who do not work extreme hours in either market or domestic work, hours in each type of work are positively correlated (the correlation coefficient is 0.2 in both the Nepal and Vietnam data). Moreover, domestic work is at least as likely as market work to trade off with schooling, as shown by evidence from Egypt (Assaad, Levison and Zibani, 2003), Mexico (Levison, Moe and Knaul, 2001) and Peru

(Levison and Moe, 1998) and as discussed in the next section. Thus, any analysis of child labor should consider work outside of the child's household, work inside of the child's household in market work and domestic work. Unfortunately, few surveys collect data on domestic work, so in practice it is often neglected by official statistics and econometric studies.

Allocating time between work and school

Many working children attend school, and the average hours worked by a typical child worker are not necessarily incompatible with schooling. Table 28.2 shows how total hours of work are related to different types of work and to school attendance using the same UNICEF data as Table 28.1. Children are grouped into rows based on whether they participate in indicated activities. Thus, the first row contains average total hours worked in the last week for children that participate in market work. Children that participate in market work devote on average 26 hours per week to work. Children that work in the family farm/business or work outside the household in unpaid market work tend to work similar hours (27 hours per week on average). Working outside the household for wages is associated with slightly more total hours worked for older children. Children working in domestic work also spend considerable time working, at 16 hours per week. The fact that total hours worked for children active in domestic work is lower than for children active in market work should not lead one to conclude that domestic work is insignificant. On average, a majority of the total hours worked by children active in market work is

Table 28.2 Total hours worked in last week, conditional on activity, for 124 million children 5–14 from 36 countries in 2000

	All children	*Age*		*Gender*		*Location*	
	5–14	*5–9*	*10–14*	*Male*	*Female*	*Urban*	*Rural*
Market work (MAR)	26.1	21.1	28.5	25.3	27.1	21.7	28.3
Paid	30.9	21.0	33.5	30.0	32.2	27.3	33.6
Unpaid	26.9	20.9	30.6	26.3	27.4	20.6	29.6
Family	27.2	22.6	29.2	26.3	28.3	22.3	29.2
Domestic work (DOM)	15.8	11.6	18.6	15.4	16.1	12.4	18.5
Any work (MAR + DOM)	16.1	11.9	18.9	15.9	16.2	12.8	18.6
Schooling status							
Not attend school	11.6	6.3	23.7	10.3	12.9	8.0	13.4
Attends school	10.7	6.4	14.1	10.3	11.1	8.2	13.3

Notes: Each cell contains total hours worked (in both market and domestic work) in the last week for individuals that report participating in the indicated (row) activity. Children may participate in multiple activities. See Table 1 for row descriptions. *Attends school* indicates that the child attended school during the last year.

Source: Authors' calculations from UNICEF Multiple Indicator Cluster Survey End of Decade Assessment microdata. See Table 28.1 for description.

actually time spent in domestic work. Overall, a working child devotes on average 16 hours per week to working, but working children that are older, female or live in rural areas work on average longer hours.

Though time devoted to work is considerable, it is not necessarily incompatible with schooling attendance. Reported school attendance rates in these UNICEF data only drop below 50 percent on average for children working more than 40 hours per week. However, children who attend school spend less time working than children who do not attend school. Seventy-three percent of children who attend school also work. The bottom two rows show that children who attend school work 10.7 hours per week on average, below the average 11.6 hours worked by children 5–14 that do not attend school. Differences in hours worked are especially pronounced among older children ages 10–14, with older children who do not attend school working almost 10 hours more than those in school.

In fact, most children that work attend school. The top part of Table 28.3 reports school attendance for children 5–14 in the UNICEF surveys. Overall, almost 70 percent of children ages 5–14 attend school, and attendance rates are particularly high for older children, boys and children in urban areas. School attendance varies by work status. The middle part of Table 28.3 reports school attendance conditional on work status. Almost 74 percent of working children 5–14 attend school. Children that do not work are actually

Table 28.3 Work and schooling status for 124 million children 5–14 from 36 countries in 2000

	All children	*Age*		*Gender*		*Location*	
	5–14	*5–9*	*10–14*	*Male*	*Female*	*Urban*	*Rural*
Attend school	69.5	58.9	80.8	70.7	68.3	75.1	63.9
Attendance rates conditional on							
Any work	73.9	64.1	80.6	75.7	72.3	80.1	68.3
Not work	60.0	52.9	82.2	61.6	57.8	64.9	52.8
Conditional on nonattendance							
Domestic only	32.0	30.8	34.9	27.1	36.6	31.8	32.0
Market only	4.5	2.8	8.3	6.3	2.7	4.9	4.3
Both market and domestic	22.0	13.1	42.2	20.3	23.5	12.8	26.6
Not work	41.5	53.3	14.6	46.2	37.1	50.6	37.1

Notes: The first row contains school attendance rates by column group. All rows listed under "Attendance Rates Conditional on:" restrict the population to children whose labor status is in the indicated category (works in any type of work, does not work). The rows listed under "conditional on non attendance" restrict the sample to children that do not attend school. These non-attenders are then divided into four categories: works only in domestic work, works only in market work, works in domestic and market work, and does not work. Thus all four rows under the "conditional on non-attendance" row sum to 100 (with some rounding error).

Source: Authors' calculations from UNICEF Multiple Indicator Cluster Survey End of Decade Assessment microdata. See Table 28.1 for description.

about 14 percentage points less likely to attend school, but this mostly reflects lower school attendance among younger nonworking children. Among older children 10–14, school attendance is slightly lower for the group that works.

What do the 30 percent of children 5–14 that do not attend school do? The bottom part of Table 28.3 summarizes participation rates of children that do not attend school in various activities. Less than 5 percent of these children participate in market work alone. Participation in domestic work without schooling or market work is much more common – 32 percent of children 5–14 that do not attend school participate in domestic work alone. Thus, ignoring domestic work within the child's own household will cause researchers to miss one of the largest segments of children that do not attend school. Interestingly, almost 42 percent of the children that do not attend school also do not work. These so called "idle" children are predominately younger. They may largely be children too young to start school or work, but little is known about how their apparent idle status should be considered.

Even though most working children attend school, there may still be substantive consequences of work for schooling attainment. Time spent working takes away from study, play and sleep and might undermine the effectiveness of the classroom for child workers that attend school. That said, it is at least possible that some working children may also be learning valuable skills, accumulating experience, bringing in resources, establishing independence, supporting their family, paying for their schooling, developing a sense of effectiveness and enhancing their self-confidence – even if such effects are potentially difficult to capture in the data. Overall, deciphering how work impacts schooling attendance, performance or attainment depends on knowing what children would do if they were not working, and this is a major challenge for research.

Several studies have documented a negative correlation between working and grade advancement, years of completed education and test scores (Orazem and Gunnarsson, 2004; Psacharopoulos, 1997). For example, with data from 12 Latin American countries, Orazem and Gunnarsson (2004) find that third and fourth graders who attend school but never work in market or domestic work perform 28 percent better on mathematics tests and 19 percent better on language tests than children who attend school and work. However, the negative correlations might reflect that low-performing students tend to engage in work rather than that work creates low-performing students. Studies such as Boozer and Sari (2001) and Beegle, Dehejia and Gatti (2004) that try to address the endogeneity of child labor also find a negative association between child labor and educational attainment. For example, Beegle, Dehejia and Gatti examine the status of young adults in Vietnam five years after they are observed working and attending school. They find that a one standard deviation increase in hours worked for children attending school is associated with a 35 percent decrease in educational attainment five years later. Hence, even though most working children attend school, work may still have substantive consequences for schooling attainment.

Hazardous forms of child labor

The patterns of child labor described above come from large-scale household surveys. The advantage of these surveys is that they are randomized, so that it is possible to use them for inference about the scope of child labor in a country. However, some relatively rare forms of child labor are difficult to identify in household surveys. For these difficult-to-monitor forms of child labor, the ILO and interested organizations conduct specialized surveys that interview only those individuals engaged in the activity. It is a challenge to use these surveys to understand why children are engaged in relatively rare activities, but they are useful for estimating the incidence of some of the most hazardous forms of child labor.

The ILO's SIMPOC estimates that a total of 8.4 million children are involved in child trafficking, in forced or bonded labor, are soldiers, are prostitutes or involved in pornography or participate in illicit activities (ILO, 2002). Of these children, 68 percent are in bonded or forced labor. The reasons why children participate in hazardous forms of child labor have been given ample theoretical consideration, but systematic empirical evidence is scarce. An open research question is whether the determinants of participation in these hazardous activities that are universally condemned differ from the forces that drive young children to work on their family farm or in domestic duties.

It is also important to remember that children can face hazards in the most common kinds of labor, too. Especially as children get older, they become active in all aspects of agriculture, and it is not unusual to see reports of injuries in operating farm machinery in child labor surveys. The self-reported injury rate from child labor surveys of children working in agriculture is actually higher, at 12 percent, than the 9 percent level reported in manufacturing (Ashagrie, 1997). Agriculture can also be hazardous for children because of exposure to dangerous chemicals such as chemical herbicides or pesticides, exposure to heat or weather, repetitive work injuries and threats posed by animals, reptiles, insects, parasites and some plants. Recent research has emphasized not only the physical threats of child labor (O'Donnell, Doorslaer and Rosati, 2004), but also the psychosocial consequences for children of especially hard work (Woodhead, 2004).

Obviously, there is considerable scope for improvement in the basic data on the extent and circumstances of child labor. What is clear is that most working children are at home, helping their family in the family business or farm and with domestic work. The question of when child labor merits separate policy attention is still largely unresolved. However, one fundamental fact about child labor that emerges from the research discussed in the next section is that when families improve their economic status so that they no longer need children to work, they are quick to move children out of work. This observation, more than anything else, emphasizes the general undesirability of the high levels of child labor around the world today and the need to consider child labor in the formulation of development policy.

Economic conditions and policies that affect child labor

Since the seminal work of T.W. Schultz (1960), economists generally consider child labor in the context of the family's welfare optimization problem. Families take into account their valuation of child time in its various possible uses and allocate it accordingly. Thus, factors that raise the relative return to schooling may discourage child labor while increases in the child's wages or the family's valuation of the child's wages may encour-age it. While one often sees assertions that child labor is determined by cultural norms, the vast literature on how child labor responds to changes in the child's economic environment suggests that economic incentives matter, too. For example, decisions about how to allocate child time are often made by a parent. This gives rise to an agency problem, because the parent may not fully internalize all of the returns or benefits of how child time is allocated. Norms will influence the extent of the agency problem. For instance, in cultures where girls depart the family but boys stay and support the parents, the parent perceives a greater return to investing in the boy. This norm in turn makes investment in boys more profitable for the immediate family, and girls accordingly may work more. However, even with these norms, a vast body of research suggests that various aspects of poverty are of primary importance in understanding why children work.

Evidence on three facets of poverty is particularly compelling. First, child labor seems to decline dramatically with improvements in household living standards. Some of the evidence from household responses to trade liberalization is particularly interesting here. Despite rising employment opportunities for children, we observe declines in child labor as family incomes rise with trade. Second, child labor seems to be highly responsive to unexpected changes in the family's economic environment. Difficulty in transferring income over time (through saving or borrowing) is a common correlate of poverty, and research from several countries suggests that credit constraints and financial market imperfections increase the number of children who have to work. Third, poor local institutions such as ineffective or expensive schools associated with poverty may leave children with few sensible options other than work. We describe the evidence on how these three facets of poverty affect child labor in this section.

The role of living standards

Improvements in family incomes may affect child labor in four ways. First, child labor itself may be a bad in the family's welfare function. Thus, as incomes improve, the family chooses to have children work less. This idea is central in Basu and Van's (1998) seminal paper where children only work when the family cannot meet its subsistence needs. Second, with diminishing marginal utility of income, the value of the marginal contribution of the child's income decreases. Third, higher family incomes may facilitate the purchase of substitutes for child labor that may potentially lower the return to child labor within the household. For example, a washboard, fertilizer spreader or a combine harvester may replace child labor within the home. Fourth, the child's productivity in other activities such as schooling might improve because the family might be able to afford better inputs to schooling such as school fees, textbooks and uniforms.

The cross-country data on living standards and child labor suggests a strong connection between the two. Figure 28.1 plots the ILO's LABORSTA estimates of economic activity rates for children 10–14 against estimates of real GDP per capita (using purchasing power parity exchange rates) from the Penn World Tables 6.1. Each country observation is pictured as a circle where the size of the circle represents the size of the country's population between ages 10 and 14. While child labor is pervasive in poor economies such as Ethiopia and Nepal, child labor is unusual in a country wealthier than Gabon with a GDP per capita of $8,400. The curve in Figure 28.1 is from the regression of a country's economic activity rate for children on a third-order polynomial in GDP per capita (to allow a nonlinear relationship). The regression curve shown here is weighted by the population of children aged 10–14 in each country, but the unweighted regression curve is nearly identical. With this specification, variation in GDP per capita explains 73 percent of the variation in the economic activity rates of children.

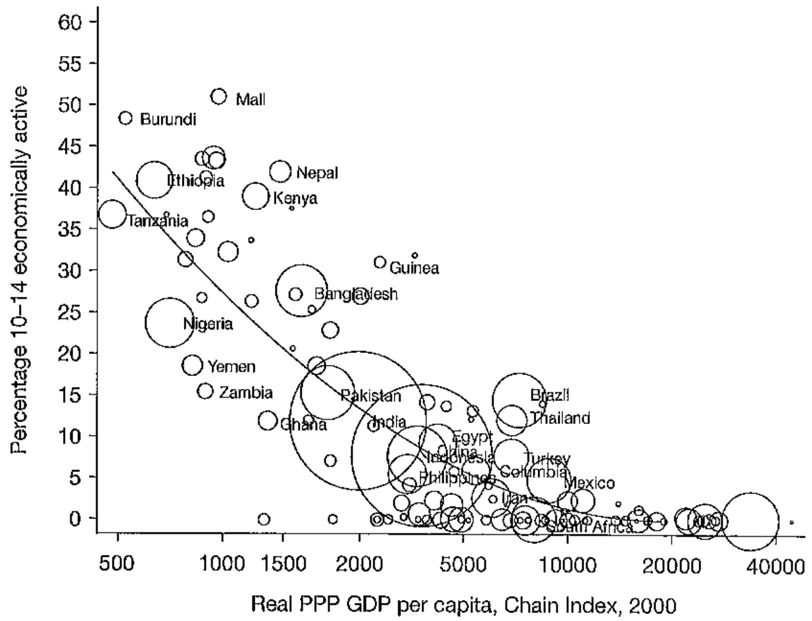

Figure 28.1 The relationship between economic status and economic activity, 2000

Source: Economic activity for 2000 from LABORSTA at <http://laborsta.ilo.org>, GDP per capita from Penn World Tables 6.1, and population aged 10–14 weights from UNStat.

Countries differ in many ways that may be associated with child labor and GDP per capita. Hence, the relationship in Figure 28.1 cannot be interpreted as causal. There are two types of within-country studies on the link between poverty and child labor that try to answer the question of what happens to child labor as income improves: those that look across different households at a point in time and those that look at the same households in two different time periods. In general, researchers that compare poor households to rich households at a single point in time in a country find mixed evidence of a link between poverty and child labor. Poor households differ from rich households in many ways that might be associated with child labor, and disentangling these omitted factors from the underlying causal relationship is difficult. For example, poorer households may live in areas with few employment opportunities, or poor households may lack capital, like tools or livestock, that make work more productive. In this case, at a single point in time, researchers could observe more child labor in wealthier families. This seems especially likely if researchers only focus on the types of work that are strongly correlated with living in a relatively well-off location (like wage work).

Studies tracking families over time almost universally find large declines in child labor with substantive changes in family incomes. For example, in tracking children over a three-year period in rural Tanzania, Beegle, Dehejia and Gatti (2003) find that children tend to work when households experience an unexpectedly poor harvest and that children stop working when households recover from the bad harvest. Yang (2004) examines how Philippine households with overseas workers responded to the 1997 Asian financial crisis. Remittance income increased in households whose overseas worker experienced more favorable exchange rate movements. Consequently, children in

households with increased remittance income from abroad devoted less time to work and increased school attendance.

Let us consider in more detail the evidence on the relationship between poverty and child labor based on data from an elaborate survey project that tracked child labor and living standards in over 3,000 Vietnamese households between 1993 and 1998. Figure 28.2 plots participation rates in market work (defined as participation in wage work, work on the family farm or work in a household business) for children 6–15 against household per capita expenditure. The top line in Figure 28.2, which compares households at different levels of per capita expenditure in 1993, suggests a strong negative correlation between household living standards and child labor. For households below the 1993 poverty line, participation of children in market work exceeds 30 percent. From 1993 to 1998, real expenditure per capita increased by more than 50 percent for the poorest 10 percent of the population. For Vietnam overall, the incidence of poverty declined 36 percent.

The bottom curve in Figure 28.2 pictures the relationship between participation in market work in 1998 and household's per capita expenditure in 1993. Thus, for each point on the per capita expenditure distribution in 1993, child labor participation rates are pictured for the same households in 1993 and 1998. Participation rates drop substantially, with the largest declines in child labor occurring in households in the neighborhood of the poverty line in 1993. Indeed, over 80 percent of the decline in child labor occurring in households that exit poverty between 1993 and 1998 can be explained by improvements in household living standards (Edmonds, 2005).

Some of the most compelling evidence on the relationship between child labor and improvements in family living standards comes from how child labor responds to changes

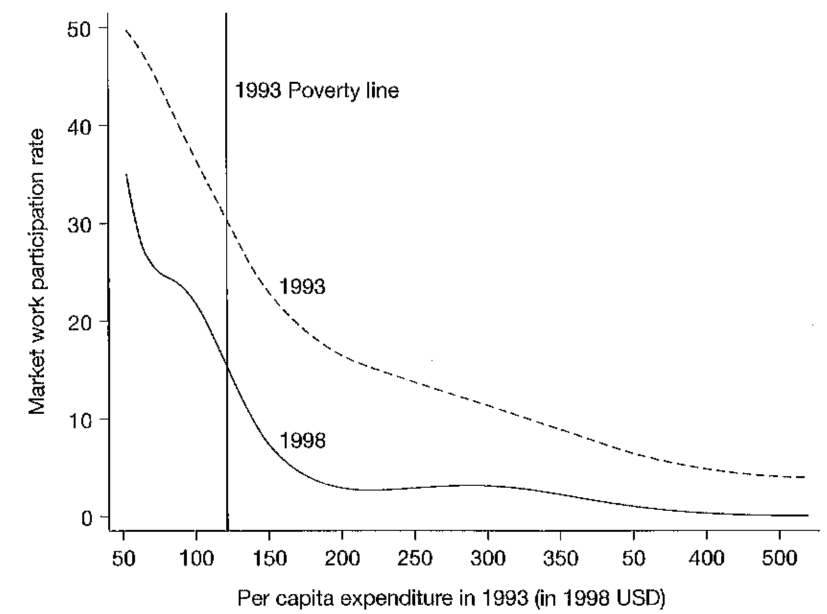

Figure 28.2 Living standard improvements and child labor in Vietnam in the 199s

Source: General Statistic Office (1994, 1999): Vietnam Living Standards Survey, Rural Panel, 1993 and 1998.

in trade policy. A common argument in the child labor literature is that foreign trade (and globalization in general) increases child labor by increasing the demand for goods produced by children. Consequently, many advocate trade sanctions by high-income countries on exports of goods from poor countries produced by child labor as a way to reduce child labor. A similar idea is implicit in consumer boycotts of products produced by child labor. Consumers who do not wish to consume goods produced by child labor can do so by purchasing products labeled as "child labor free" at a premium. Visible examples of such policies include RUGMARK-approved hand knotted rugs and "FIFA approved" soccer balls. However, economic theory suggests that the connection from expanded trade to child labor is ambiguous. After all, if expanded trade increases the incomes of parents, households may use the greater wealth to reduce child labor. In fact, Edmonds and Pavcnik (2004b) consider the cross-country data on child labor and openness to trade. They find that countries that trade more have less child labor, rather than more, and that this association is driven entirely by the strong association between trade and income.

Individual-level data that directly compare the effects of rising employment opportunities associated with increasing trade to the effects of changes in family income is relatively rare. Edmonds and Pavcnik (2004a) find declines in child labor during an episode of liberalization of rice markets in Vietnam. Between 1993 and 1998, Vietnam phased out quotas that restricted the export of rice and eliminated constraints on the trade of rice within the country. During this period, the average real price of ordinary rice increased by almost 30 percent. In Vietnam, 70 percent of households produce rice, and rice production is the largest employer of both children and adults. In fact, 26 percent of children 6–15 worked in agriculture (likely largely in rice production), and many more helped in the processing of rice or helped with household tasks that enabled parents to work in rice production. Moreover, rice accounts on average for 29 percent of the household budget.

The study uses the intertemporal and spatial variation in rice prices within Vietnam to consider potential effects of trade-induced price changes on child labor. Liberalization of rice markets appears to be associated with higher wages paid to both children and to adults. However, despite increased earning opportunities, Edmonds and Pavcnik (2004a) find that rice price increases can account for 45 percent of the decline in child labor that occurs in rural Vietnam in the 1990s. Children in households that are large net rice producers experience the largest declines in child labor, while child labor actually increases with rice price increases in households that are large consumers of rice. Land and labor are the two primary inputs into rice production, and overall, both are sufficiently equally distributed in Vietnam that most households were well positioned to enjoy the additional income stemming from this trade liberalization.

Of course, it is possible that a growth in trade could have opposite effects when the income gains are not distributed to those whose employment opportunities are rising. For example, Kruger (2004) observes that during the coffee boom of the mid-1990s in Nicaragua, there is an overall increase in child labor that is especially large in poor households in coffee producing areas. One explanation for her findings is that because of the concentration of land in coffee (and the resulting market power in local labor markets), poor laborers have received increases in income that are minor compared to the growth in labor demand, and, hence, child labor has increased. Thus, it is not inevitable that a growth in trade and employment opportunities will increase child labor, nor is it inevitable that such growth will decrease child labor either. The data, however, are clear on one point: significant increases in family income are ceteris paribus strongly associated with reductions in child labor.

Credit market imperfections

Impoverished families may choose to have their children work either because they need the child's economic contribution to the household income or because that is the most sensible use of the child's time given the opportunities available to the child. Child labor seems particularly tragic when a child is compelled to work because of family need when the family would rather not have the child work given its environment. Several theoretical studies emphasize that if credit markets allowed households to borrow against future earnings, child labor could be much reduced (Baland and Robinson, 2000; Ranjan, 2001). (Note that there is a somewhat distinct literature considering whether educational decisions in high-income countries are influenced by an inability to borrow against the returns to a college education.) The main focus of attention in the developing country-child labor context is whether families can manage resources to in effect borrow against the next crop cycle (or pay period).

Three recent studies with individual-level data suggest that financial market imperfections that limit a household's ability to borrow may cause a greater number of children to work. In rural Tanzania, households increase child labor to mitigate the consequences of large crop losses (Beegle, Dehejia and Gatti, 2003). In urban Brazil, when male household heads enter unemployment, their children are more likely to work and less likely to advance in school (Duryea, Lam and Levison, 2003). These studies are consistent with credit market imperfection coupled with insurance failures, but it is difficult to exclude permanent income effects and changes in the value of child time as explanations for their findings. To isolate the credit channel, Edmonds (2004) compares child labor and schooling in black South African households that are about to receive a large anticipated cash transfer to child labor and schooling in households already receiving the cash. These two types of households have similar permanent income, but differ in cash on hand. He finds that child labor declines and schooling increases substantially when households begin receiving the anticipated income, which suggests that household access to credit is weak. These findings suggest that the credit and financial market imperfections associated with poverty are an important contributor to child labor.

In fact, problems with access to credit may be one of the most important reasons we observe children in bondage. The United Nations (1998) estimates that some 20 million people around the world are held in debt-bondage, and the ILO (2002) argues that nearly 30 percent of these bonded laborers are children. A child enters bondage when the child or the parents take out a debt from an employer against the child's future earnings. The bonded serves the creditor-master until the debt is repaid. However, because the bonded laborer is not free to negotiate the terms of employment after initial contracting, it can be very difficult for the worker to repay the debt and exit bondage. Often debts are inheritable. Edmonds and Sharma (2004) examine one debt-bondage system in the plains of Nepal and argue that the inheritability of the debt, coupled with a general insecurity in property rights over the indentured, makes debt-bondage particularly pernicious. With more developed credit markets, there would be little reason for children or their parents ever to consent to bondage in the first place.

Education reform

The family's external environment also influences whether and how much a child works. While we have already discussed the importance of the return to work for child labor, the return to other uses of the child's time, especially schooling, can also play a role in the child labor decision. Poverty often coexists with inadequate local institutions such as schools. When the alternatives to working are expensive or of poor quality, work may be the best use of a child's time. Although child labor might be compatible with school attendance, this does not preclude the family's schooling environment from influencing child labor.

One reason why families might choose not to send children to school is low perceived returns to attending school, and there is some evidence that child labor can be reduced by improving the incentive for households to send children to school. For example, Foster and Rosenzweig (2004) argue that school construction accompanying the green revolution in India facilitated increased schooling and decreased child labor. A number of countries have adopted policies designed to discourage child labor and increase schooling by lowering the cost of schooling via educational subsidies.[5] Examples of such programs include PETI and Bolsa Escola in Brazil, the Mid-day meals program in India and the Progresa program in Mexico. The Progresa program is particularly important because many countries are emulating it. The most relevant aspect of Progresa in the present context is that the transfers to poor households contain additional cash incentives for schooling. These incentives increase with age of the child, to compensate the household for the older child's greater opportunity cost of schooling. These programs can influence child labor through lowering the costs of schooling and raising family income. The evaluation data on Progresa is extremely encouraging. Schultz (2004) finds a significant reduction in wage and market work associated with eligibility for Progresa. He also projects a two-thirds of a year rise in schooling attainment (over a baseline level of 6.8 years) associated with the program. Of course, these schooling incentives might have larger effects on schooling than on child labor, depending on the program and the economic context, as Ravallion and Wodon (2000) found in their evaluation of Bangladesh's Food for Education program, which pays students in rice for attending school. But overall, these studies suggest a strong connection between child labor decisions and the return to sending the child to school.

Thus, improving the quality of education in a way that raises the return to education might also provide an incentive to reduce the quantity of child labor. When schools are bad, there is likely little return to education and households will not choose to educate their children. Formal studies of the link between child labor and school quality are conspicuously absent, but there is ample evidence of a strong link between school quality and school attendance. For example, Case and Yogo (1999) use variation in school quality for blacks in apartheid South Africa to study the link between the pupil-teacher ratio, the returns to schooling and school attendance. A decline in the pupil-teacher ratio by 10 students is associated with a 2 percent increase in the return to education and an additional 0.6 years of completed schooling. Foster and Rosenzweig (1996) examine how the schooling of children responds to changes in the returns to education in Green Revolution India. With economic growth and advances in technology, the economic return to education appears to have increased dramatically, and households are more likely to give up present consumption to capture the benefit of education for their children.

A variety of evidence suggests that making education more attractive can be used as a policy tool to reduce child labor or at least to mitigate the schooling consequences of child labor. Thus, policies that seek to reduce the costs of schooling, increase school quality or improve the market return to education all have the power to reduce child labor.

Policy implications

Child labor is pervasive across low-income countries, as children help their parents on the family farm or business and in domestic work. Images of children forced into prostitution, fighting as soldiers or enslaved capture the popular imagination, but these hideous working conditions are rare. Of course, their rarity does not diminish the case for immediate, carefully targeted policy against these worst forms of child labor. But what should be done about the general incidence of child labor? Perhaps the strongest case for the need for direct attention to the types of child labor that pervade the low-income world is made by poor families themselves. By their behavior, these families reveal that they do not want their children to be working: child labor declines very rapidly as families become richer and their dependence on the income of children decreases.

Economic development that raises the incomes of the poor is the best way to reduce child labor around the world. But this process may take a long time. If we were to take the cross-country relationship between per capital income and child labor presented earlier in Figure 28.1 seriously as a forecast of what will happen to economic activity rates as countries grow richer – which it clearly is not – we could compute how economic growth will reduce child labor in the future. Based on the relationship in Figure 28.1 and historically average rates of growth of GDP per capita of 1.7 percent (Besley and Burgess, 2003), the economic activity rates of children should decline by 20 percent by 2015 and almost 50 percent by 2050. If economic development is to be accompanied by policies aimed directly at child labor, what types of national and international policies might be most effective?

Direct policy tools like bans on child labor or requirements that children attend school, however politically appealing, are of doubtful effect. First, enforcement is difficult. Developing countries often lack resources to enforce child labor bans, especially when most children work for their parents on family farms. Non-compliance with compulsory schooling laws continues to be a large problem in today's developing world (Krueger, 1997; Brown 2001).

Second, there is no guarantee that such policies will alter local labor markets in a way that increases family income, and thus an economic incentive for children to work will remain. The case for prohibitions on child labor is often framed as a multiple equilibrium problem. For example, in Basu and Van (1998) child labor persists because child labor depresses adult wages, making child labor necessary. However, punitive measures may actually increase child labor. For example, Basu (2003) shows that fining firms in violation of the child labor laws might actually increase child labor. The fines raise the expected cost of employing children, so that firms only find it profitable to employ children at lower wages, and more children are required to work to cover a family's subsistence needs. Moreover, bans on child labor in the real world typically apply only to certain relatively small kinds of child labor, like working for pay in a factory, rather than large categories like child laborers employed by their parents or children in unpaid domestic work. It is difficult to imagine that real-world labor market regulation can affect enough of the child labor market to have general equilibrium effects on wages as required in Basu and Van (1998). For example, the high-profile ban on child labor in Bangladesh involved mainly children working for pay in the garment industry. This ban allegedly affected the employment of 10,000 children, which corresponds to a tenth of one percent of economically active children in Bangladesh. Thus, although a legal ban *might* reduce child labor, this outcome is not guaranteed, especially when labor can easily substitute inside the household and thereby outside of the reach of labor laws. Without large general equilibrium effects on wages, the loss of a child's income, however small, might hurt the working child as well as her siblings.

Third, policies that keep children from working in one type of job might push children into nonexporting sectors or even into worse forms of child labor (in the Bangladesh case, anecdotes abound about children leaving garment factories for prostitution or work in stone quarries). That said, scientific evidence on what happens to children displaced from formal work is essentially nonexistent even in the most publicized prohibitions on the employment of children owing to the threat of sanctions, like the Bangladeshi garment industry and Pakistani soccer balls (Elliott and Freeman, 2003, pp. 112–115).

Empirical evidence on the effectiveness of child labor bans is scarce and draws mainly on the historical experiences of developed countries. Several careful empirical studies exploit variation in the implementation of the child labor and compulsory schooling laws across the United States to examine whether these legislative measures were the driving force behind the drastic declines in child labor at the turn of the twentieth century and increases in secondary school enrollment and educational attainment between 1910 and 1940. Moehling (1999), for example, finds little evidence that minimum age laws for manufacturing employment implemented between 1880 and 1910 contributed to the decline in child labor during this period. Several other U.S. studies suggest that some later child labor and compulsory schooling laws affected high school enrollment rates and subsequent educational attainment, but these legislative measures can explain at most 5 percent of the increase in high school enrollment and subsequent educational attainment between 1910 and 1939 (Goldin and Katz, 2003).

Might trade-related pressure help to reduce child labor? The U.S. government has repeatedly considered restricting trade or trade preferences for countries where child labor is endemic.[6] At the international level, some advocate for the World Trade Organization or the International Labor Organization to oversee harmonized child labor standards, with violators to be punished via trade sanctions.[7] At the consumer level, boycotts of products produced by child labor and more generally antisweatshop activism have become popular. Such campaigns seek to pressure multinational producers of high-profile brand name products to improve their labor practices.

Although these trade policies have highlighted the issue of child labor on the political agenda, there are several problems in using them in practice. First, if these policies lead to trade sanctions that reduce average family income, they could potentially increase the incidence of child labor. On the other hand, if the sanctions are only implemented very rarely, then they will not be a credible threat. Second, the recent history of trade sanctions aimed to promote broader political change does not suggest much optimism about their efficacy (Elliott and Freeman, 2003). Third, it's not clear what specific action the trade pressures should be seeking to create. For example, preventing children from working in one high-profile job may do nothing more than force children to change employers –

perhaps for the worse. Attempts to require either bans on child labor or compulsory school attendance are subject to the problems above. Fourth, it is difficult to distinguish whether these measures reflect genuine interest in the well-being of children in poor countries or whether they are just a palatable excuse for protectionism. Overall, it is difficult to make a strong case for trade policy or consumer boycotts as an effective tool to combat child labor. Consumer activism has brought the problem of child labor into the spotlight, but we are not aware of any systematic empirical evidence of the effectiveness of consumer activism in reducing child labor. It seems a blunt tool that is unlikely to reach the typical child laborer who helps parents on the family farm and in domestic chores.

Policies targeted at improving school infrastructure and reducing the cost of schooling provide the most promising targeted ways to reduce child labor. These initiatives might work best when combined with conditional cash transfers programs for households that send children to school, such as Food for Education in Bangladesh and Progresa in Mexico. Such programs have been successful in increasing school attendance, which ameliorates one of the concerns about child labor, and there is some evidence that these policies have, to a lesser extent, also reduced child labor. One great advantage of this type of positive program to discourage child labor through increasing schooling is that it addresses the agency problems and difficulty in monitoring that plague many other methods of attempting to reduce child labor. For example, though bans on child labor or laws for compulsory schooling can be difficult to enforce in, say, rural areas of low-income countries, linking a cash payment to the family to school attendance is much more practical.

International donors have been active in supporting similar positive initiatives that recognize the interconnection of poverty and child labor. While these programs appear promising, formal and independent evaluation of programs designed to help ameliorate child labor remains unusual. This unfortunate absence of evaluation work significantly limits our knowledge about the effectiveness of interventions aimed at child labor and prevents any learning from these experiences to design more effective policies concerning child labor. Whether anything other than economic development is an effective, long-term solution to the widespread incidence of child labor is an open question.

Notes

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1 One exception to this standard is the ILO's (International Labour Organization, 2002) global counts estimates, which define an economically active child as a child laborer if she is under 12 and economically active for one or more hours per week, 12–14 and working more than 14 hours per week or one or more hours per week in activities that are "hazardous by nature or circumstance," and if she is 15–17 and works in "unconditional work forms of child labor" (trafficked children, children in bondage or forced labor, armed conflict, prostitution, pornography, illicit activities).

2 Cross-country estimates of economic activity rates are also available from the International Labor Organization's LABORSTA database at <http://laborsta.ilo.org/>. In theory, the labor force in these data includes all wage workers, employers, own-account workers, members of producer cooperatives, unpaid family workers, apprentices, members of the armed forces and the unemployed. These LABORSTA estimates of economic activity rates are generally believed to understate the extent of economic activity, because data on work inside the household (even market work) are often not collected. Moreover, although the LABORSTA data are available over time, very few low-income countries have multiple data sources on child labor over time. Much of the intertemporal variation in child labor in the LABORSTA data is thus driven by the imputations and adjustments done for LABORSTA rather than independent observations on child labor. As a result, we do not view the LABORSTA data as useful for analyzing changes in child labor over time.

3 The Understanding Children's Work Project at <http://www.ucw-project.org> maintains a searchable database of datasets with basic child labor information. Many datasets with detailed child labor questions are publicly available. Several SIMPOC child labor surveys are available in English at <http://www.ilo.org/public/english/standards/ipec/simpoc/microdata/index.htm>. Multipurpose household surveys conducted under the Living Standards Measurement Surveys of the World Bank are available at <http://www.worldbank.org/lsms/>. Other household survey projects with child labor information such as the most recent Indonesian Family Life Survey available at <http://www.rand.org/labor/FLS/IFLS/> and UNICEF's Multiple Indicator Cluster Surveys (MICS) available at <http://www.childinfo.org/MICS2/MICSDataSet.htm> are freely available.

4 The only exception that we are aware of is that a 2000 Department of Labor study claims that only 39 percent of economically active children 10–14 in Indonesia work in agriculture in 1993.

5 A related set of empirical studies, not directly linked to child labor, suggest, a direct link between schooling costs and school attendance. For example, there are recent reports of dramatic increases in school enrollment with initiatives to eliminate school fees (Kremer, 2003). In Kenya, Kremer, Moulin, Myatt and Namunyu (1997) evaluate a randomized intervention providing uniforms to students who would otherwise need to pay for uniforms. After five years, students with the free uniforms had completed 15 percent more schooling. Indirect schooling costs, such as the costs associated with accessing schooling, may also be important. For example, Duflo (2001) finds a large increase in schooling attainment accompanying a school construction program in Indonesia that would have lowered the commuting costs of schooling dramatically.

6 The U.S. government, for example, passed a 1997 amendment to the 1930 Tariff Act that prohibits imports of goods produced by forced or indentured child labor. Although the bill has yet to pass, the proposed Child Labor Deterrence Act aims to go further and to prohibit all imports of products into the United States that are manufactured by child labor. Also, under the Generalized System of Preferences (GSP), the United States can withdraw a poor country's eligibility for trade preferences based on the country's poor record in child labor practices (and other worker's rights). Finally, the 2000 Trade and Development Act restricts eligibility for trade benefits to countries that the Secretary of Labor certifies as showing progress towards eliminating the worst forms of child labor.

7 Abolition of child labor is one of the ILO's four core labor standards that some view should be respected by all nations regardless of their level of economic development. Discussion of international labor standards is beyond the scope of this paper and is covered in Basu (1999), Brown (2001) and Elliott and Freeman (2003).

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REVIEW AND DISCUSSION QUESTIONS

1. What kind of work do most working children in developing countries do? Who employs them?
2. The authors point out that the relation between child labor and school attendance and performance is more complicated than one might expect. Explain why this is the case.
3. Increases in family income may affect child labor in a number of ways. Explain why.
4. Explain what the evidence shows regarding the relation between child labor and foreign trade (or, more broadly, globalization).
5. In what ways is the pervasiveness of child labor linked to the level of development of a country's financial markets?
6. According to the authors, what kind of policies should developing countries pursue to address child labor? Do you agree with the authors' recommendations?

Notes

1 Food and Agriculture Organization of the United Nations (FAO), *The State of Food and Agriculture 2003–2004: Agricultural Biotechnology: Meeting the Needs of the Poor?* (Rome: FAO, 2004, http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/006/Y5160E/Y5160E00.HTM.
2 For a comparison of GM crops to these earlier Green Revolution varieties, see F. Wu and W. Butz, *The Future of Genetically Modified Crops: Lessons from the Green Revolution*, RAND report MG-161-RC (Santa Monica, CA: RAND Corporation, 2004).
3 International Council for Science (ICSU), *New Genetics, Food and Agriculture: Scientific Discoveries -- Societal Dilemmas* (Paris: ICSU, 2003), http://www.icsu.org/1_icsuinscience/INIT_GMOrep_1.html.
4 Nuffield Council on Bioethics, "The Use of GM Crops in Developing Countries," discussion paper (London: Nuffield Council on Bioethics, 2003), http://www.nuffieldbioethics.org/go/print/ourwork/gmcrops/publication_313.html.
5 Text of remarks available at http://www.un.org/News/Press/docs/2004/sgsm9405.doc.htm
6 "FAO Declares War on Farmers Not On Hunger," http://www.grain.org/front_files/fao-open-letter-june-2004-final-en.pdf.
7 "Biotechnology: FAO Response to Open Letter from NGOs," http://www.fao.org/newsroom/en/news/2004/46429.
8 "FAO Declares War on Farmers Not On Hunger," note 6 above.

REVIEW AND DISCUSSION QUESTIONS

1 According to the FAO report reviewed by the author, in what ways can genetically modified (GM) crops be especially helpful to African farmers?
2 How does the FAO explain why GM crops are not widespread in developing countries? What does it recommend to address the obstacles to greater adoption of these crops?
3 Why are governments in developing countries reluctant to promote greater adoption of GM crops?
4 What does the evidence collected so far suggest about the possible risks imposed by GM crops on consumers and on the environment?
5 Why do many non-governmental organizations oppose the use of GM crops?
6 In your opinion, what should governments in developing countries do about GM crops? Why? Explain.

Chapter 32

Robert W. Kates, Thomas M. Parris, and Anthony A. Leiserowitz

WHAT IS SUSTAINABLE DEVELOPMENT

Goals, indicators, values, and practice

Sustainable development is . . .

CONSIDERING THAT THE CONCEPT of sustainable development is now enshrined on the masthead of *Environment* magazine, featured on 8,720,000 Web pages,[1] and enmeshed in the aspirations of countless programs, places, and institutions, it should be easy to complete the sentence.[2] But the most widely accepted definition is creatively ambiguous: "Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs."[3] This malleability allows programs of environment or development; places from local to global; and institutions of government, civil society, business, and industry to each project their interests, hopes, and aspirations onto the banner of sustainable development.

A brief history of the concept, along with the interpretive differences and the common ground in definitions, goals, indicators, values, and practice follows. Taken together, these help explain what is meant by sustainable development.

Antecedents

In the last half of the twentieth century, four key themes emerged from the collective concerns and aspirations of the world's peoples: peace, freedom, development, and environment.[4] The peace that was thought to be secured in the postwar world of 1945 was immediately threatened by the nuclear arms race. Throughout the Cold War, peace was sustained globally but fought locally, often by proxies for the superpowers. While the number of wars has diminished over the last decade,[5] peace is still sought, primarily in Africa and the Middle East.

Freedom was sought early in the post-war world in the struggle to end imperialism; to halt totalitarian oppression; and later to extend democratic governance, human rights, and the rights of women, indigenous peoples, and minorities. The success of many former colonies in attaining national independence was followed by a focus on economic development to provide basic necessities for the poorest two-thirds of the world and higher standards of living for the wealthy third. Finally, it is only in the past 40 years that the environment (local to global) became a key focus of national and international law and institutions.

Although reinterpreted over time, peace, freedom, development, and the environment remain prominent issues and aspirations. In the 1970s and 1980s, world commissions of notables[6] were created to study such international concerns, producing major documents that were often followed by global conferences. Characteristic of these international commissions was the effort to link together the aspirations of human-kind – demonstrating how the pursuit of one great value required the others. Sustainable development, with its dual emphasis on the most recent concerns – development and environment – is typical of such efforts.

The World Commission on Environment and Development was initiated by the General Assembly of the United Nations in 1982, and its report, *Our Common Future*, was published in 1987.[7] It was chaired by then-Prime Minister of Norway Gro Harlem Brundtland, thus earning the name the "Brundtland Commission." The commission's membership was split between developed and developing countries. Its roots were in the 1972 Stockholm Conference on the Human Environment – where the conflicts between environment and development were first acknowledged – and in the 1980 World Conservation Strategy of the International Union for the Conservation of Nature, which argued for conservation as a means to assist development and specifically for the sustainable development and utilization of species, ecosystems, and resources.[8] Drawing on these, the Brundtland Commission began its work committed to the unity of environment and development. As Brundtland argued:

> The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word "environment" a connotation of naivety in some political circles. The word "development" has also been narrowed by some into a very limited focus, along the lines of "what poor nations should do to become richer," and thus again is automatically dismissed by many in the international arena as being a concern of specialists, of those involved in questions of "development assistance." But the "environment" is where we live: and "development" is what we all do in attempting to improve our lot within that abode. The two are inseparable.[9]

As with previous efforts, the report was followed by major international meetings. The United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 (the so-called "Earth Summit") issued a declaration of principles, a detailed Agenda 21 of desired actions, international agreements on climate change and biodiversity, and a statement of principles on forests.[10] Ten years later, in 2002, at the World Summit on Sustainable Development in Johannesburg, South Africa, the commitment to sustainable development was reaffirmed.[11] In the interim, sustainable development as a concept, as a goal, and as a movement spread rapidly and is now central to the mission of countless international organizations, national institutions, corporate enterprises, "sustainable cities," and locales.

Definitions

The Brundtland Commission's brief definition of sustainable development as the "ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs"[12] is surely the standard definition when judged by its widespread use and frequency of citation. The use of this definition has led many to see sustainable development as having a major focus on intergenerational equity. Although the brief definition does not explicitly mention the environment or development, the subsequent paragraphs, while rarely quoted, are clear. On development, the report states that human needs are basic and essential; that economic growth – but also equity to share resources with the poor – is required to sustain them; and that equity is encouraged by effective citizen participation. On the environment, the text is also clear:

> The concept of sustainable development does imply limits – not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities.[13]

In the years following the Brundtland Commission's report, the creative ambiguity of the standard definition, while allowing a range of disparate groups to assemble under the sustainable development tent, also created a veritable industry of deciphering and advocating what sustainable development really means. One important study – by the Board on Sustainable Development of the U.S. National Academy of Sciences – sought to bring some order to the broad literature its members reviewed.[14] In its report, *Our Common Journey: A Transition toward Sustainability*, the board focused on the seemingly inherent distinction between what advocates and analysts sought to sustain and what they sought to develop, the relationship between the two, and the time horizon of the future (see Figure 32.1).

Thus under the heading "what is to be sustained," the board identified three major categories – nature, life support systems, and community – as well as intermediate categories for each, such as Earth, environment, and cultures. Drawing from the surveyed literature, the board found that most commonly, emphasis was placed on life support systems, which defined nature or environment as a source of services for the utilitarian life support of humankind. The study of ecosystem services has strengthened this definition over time. In contrast, some of the sustainable development literature valued nature for its intrinsic value rather than its utility for human beings. There were also parallel demands to sustain cultural diversity, including livelihoods, groups, and places that constitute distinctive and threatened communities.

Similarly, there were three quite distinct ideas about what should be developed: people, economy, and society. Much of the early literature focused on economic development, with productive sectors providing employment, desired consumption, and

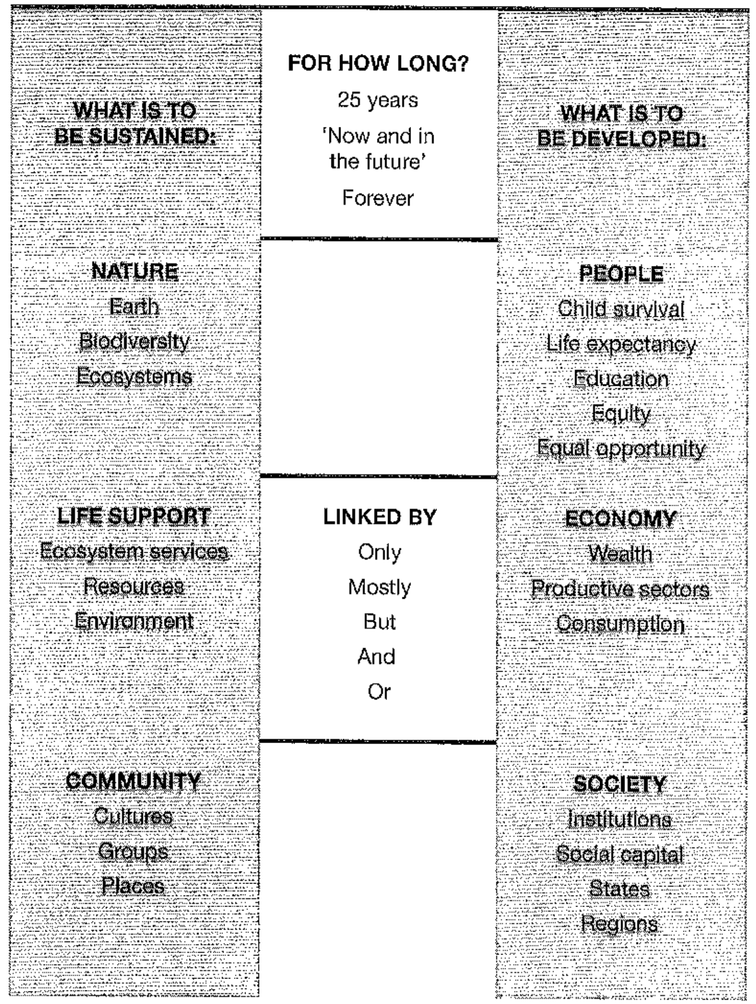

Figure 32.1 Definitions of sustainable development

Source: U.S. National Research Council, Policy Division, Board on Sustainable Development, *Our Common Journey: A Transition Toward Sustainability* (Washington, DC: National Academy Press, 1999).

wealth. More recently, attention has shifted to human development, including an emphasis on values and goals, such as increased life expectancy, education, equity, and opportunity. Finally, the Board on Sustainable Development also identified calls to develop society that emphasized the values of security and well-being of national states, regions, and institutions as well as the social capital of relationships and community ties.

There was ready agreement in the literature that sustainable development implies linking what is to be sustained with what is to be developed, but here, too, the emphasis has often differed from extremes of "sustain only" to "develop mostly" to various forms of "and/or." Similarly, the time period of concern, ambiguously described in the standard definition as "now and in the future," has differed widely. It has been defined from as little as a generation – when almost everything is sustainable – to forever – when surely nothing is sustainable.

The 2002 World Summit on Sustainable Development marked a further expansion of the standard definition with the widely used three pillars of sustainable development: economic, social, and environmental. The Johannesburg Declaration created "a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at local, national, regional and global levels."[15] In so doing, the World Summit addressed a running concern over the limits of the framework of environment and development, wherein development was widely viewed solely as economic development. For many under the common tent of sustainable development, such a narrow definition obscured their concerns for human development, equity, and social justice.

Thus while the three pillars were rapidly adopted, there was no universal agreement as to their details. A Web search of the phrase "three pillars of sustainable development" finds a wide variety of environmental, economic, and social pillars with differences most pronounced in characterizing the social pillar. Three major variants of social development are found, each of which seeks to compensate for elements missing in the narrow focus on economic development. The first is simply a generic noneconomic social designation that uses terms such as "social," "social development," and "social progress." The second emphasizes human development as opposed to economic development: "human development," "human, well-being," or just "people." The third variant focuses on issues of justice and equity: "social justice," "equity," and "poverty alleviation."

Goals

Another way to define sustainable development is in what it specifically seeks to achieve. To illustrate, it is helpful to examine three sets of goals that use different time-horizons: the short-term (2015) goals of the Millennium Declaration of the United Nations; the two-generation goals (2050) of the Sustainability Transition of the Board on Sustainable Development; and the long-term (beyond 2050) goals of the Great Transition of the Global Scenario Group.

UN Millennium Declaration

To mark the millennium, heads of state gathered in New York at the United Nations in September 2000. There, the UN General Assembly adopted some 60 goals regarding peace; development; environment; human rights; the vulnerable, hungry, and poor; Africa; and the United Nations.[16] Many of these contained specific targets, such as cutting poverty in half or insuring universal primary school education by 2015. For eight of the major goals, progress is monitored by international agencies.[17] In 2004, these agencies concluded that at existing rates of progress, many countries will fall short of these goals, particularly in Africa. Yet the goals still seemed attainable by collective action by the world community and national governments. To do so, the Millennium Project, commissioned by the UN secretary-general, recently estimated that the additional financial resources that would be required to meet the Millennium Development Goals are $135 billion in 2006, rising to $195 billion in 2015. This roughly represents a doubling of official aid flows over current levels and is still below the UN goal of aid flows from industrialized to developing countries of 0.7 percent of the gross national product for industrialized countries.[18]

Sustainability Transition of the Board on Sustainable Development

In 1995, the Board on Sustainable Development of the U.S. National Academy of Sciences sought to make sustainable development more meaningful to scientific analysis and contributions.[19] To do so, the board decided to focus on a two-generation time horizon and to address the needs of a global population with half as many more people as there are today – needs that, if met successfully, are not likely to be repeated within the next century or two because of the demographic transition. In that time period, the board suggested that a minimal sustainability transition would be one in which the world provides the energy, materials, and information to feed, nurture, house, educate, and employ the many more people of 2050 – while reducing hunger and poverty and preserving the basic life support systems of the planet. To identify more specific goals, of meeting human needs, reducing hunger and poverty, and preserving the basic life support systems of the planet, the board searched the text and statements from recent global conferences, world summits, international environmental treaties, and assessments. In so doing, the board in 1995 anticipated the 2000 Millennium Declaration goals, many of which were incorporated into its analysis and targets. Less sanguine than the UN, the board determined it would take a generation to reach the 2015 goals of the Millennium Declaration and another generation to achieve the board's goals of meeting human needs for a 2050 population.

Great Transition of the Global Scenario Group

With the assistance of the Global Scenario Group,[20] the Board on Sustainable Development conducted a scenario analysis of a proposed "Sustainability Transition," focusing specifically on hunger and the emission of greenhouse gasses. This initial analysis served as the subsequent basis of the Policy Reform Scenario of the Global Scenario Group[21] and concluded that a sustainability transition is possible without positing either a social revolution or a technological miracle. But it is "just" possible, and the technological and social requirements to move from business as usual – without changing lifestyles, values, or economic system – is daunting. Most daunting of all is the governmental commitment required to achieve it and the political will to do so.

Finally, the Global Scenario Group also prepared a more idealistic Great Transition Scenario that not only achieved the goals of the sustainability transition outlined by the Board on Sustainable Development but went further to achieve for all humankind "a rich quality of life, strong human ties and a resonant connection to nature."[22] In such a world, it would be the quality of human knowledge, creativity, and self-realization that represents development, not the quantity of goods and services. A key to such a future is the rejection of material consumption beyond what is needed for fulfillment or for a "good life." Beyond these goals, however, the details of this good life are poorly described.

Indicators

Still another way to define sustainable development is in how it is measured. Indeed, despite sustainable development's creative ambiguity, the most serious efforts to define it, albeit implicit in many cases, come in the form of indicators. Combining global, national, and local initiatives, there are literally hundreds of efforts to define appropriate indicators and to measure them. Recently, a dozen such efforts were reviewed.[23] Half were global in coverage, using country or regional data (the UN Commission on Sustainable Development, Consultative Group on Sustainable Development Indicators, Wellbeing Index, Environmental Sustainability Index, Global Scenario Group, and the Ecological Footprint). Of the remaining efforts, three were country studies (in the United States, the Genuine Progress Indicator and the Interagency Working Group on Sustainable Development Indicators, and in Costa Rica, the System of Indicators for Sustainable Development); one was a city study (the Boston Indicators Project); one was global in scope but focused on indicators of unsustainability (State Failure Task Force); and one focused on corporate and nongovernmental entities (Global Reporting Initiative). Table 32.1 lists each study with its source, the number of indicators used, and the implicit or explicit definitions used to describe what is to be sustained, what is to be developed, and for how long.

Two major observations emerge. The first is the extraordinarily broad list of items to be sustained and to be developed. These reflect the inherent malleability of "sustainable development" as well as the internal politics of the measurement efforts. In many of the cases, the initiative is undertaken by a diverse set of stakeholders, and the resulting lists reflect their varied aspirations. For example, in the UN Commission on Sustainable Development, the stakeholders are nations negotiating how to measure their relative progress or lack of progress toward sustainable development. In the Boston Indicators Project, the stakeholders are community members with varied opinions about desirable goals, policies, and investment priorities for the future. In the Global Reporting Initiative, the stakeholders are corporations, investors, regulatory agencies, and civil society groups discussing how to account for corporate actions affecting sustainable development. With many stakeholders, each with different definitions, achieving consensus often takes the form of long "laundry lists" of indicators, and definitional differences are downplayed in favor of reaching a common set of indicators. Thus, to be inclusive, the range of indicators becomes very broad. Half the examined initiatives, however, represent less-inclusive research or advocacy groups who share a more narrow and homogenous view of sustainable development. While also assembling large numbers of indicators, these groups tend to aggregate them to reflect their distinctive vision of sustainability.

A second observation is that few of the efforts are explicit about the time period in which sustainable development should be considered. Despite the emphasis in the standard definition on intergenerational equity, there seems in most indicator efforts a focus on the present or the very short term. Three exceptions, however, are worth noting: The UN Commission on Sustainable Development uses some human development indicators defined in terms of a single generation (15–25 years),[24] the Global Scenario Group quantifies its scenarios through 2050 (approximately two generations), and the Ecological Footprint argues that in the long run an environmental footprint larger than one Earth cannot be sustained. Overall, these diverse indicator efforts reflect the ambiguous time horizon of the standard definition – "now and in the future."

Table 32.1 Definitions of sustainable development implicitly or explicitly adopted by selected indicator initiatives

Indicator initiative	*Number of indicators*	*Implicit or explicit definition?*	*What is to be sustained?*	*What is to be developed?*	*For how long?*
Commission on Sustainable Development[a]	58	Implicit, but informed by Agenda 21	Climate, clear air, land productivity, ocean productivity, fresh water, and biodiversity	Equity, health, education, housing, security, stabilized population	Sporadic references to 2015
Consultative Group on Sustainable Development Indicators[b]	46	Same as above	Same as above	Same as above	Not stated; uses data for 1990 and 2000
Wellbeing Index[c]	88	Explicit	"A condition in which the ecosystem maintains its diversity and quality – and thus its capacity to support people and the rest of life – and its potential to adapt to change and provide a wide change of choices and opportunities for the future"	"A condition in which all members of society are able to determine and meet their needs and have a large range of choices to meet their potential"	Not stated; uses most recent data as of 2001 and includes some indicators of recent change (such as inflation and deforestation)
Environmental Sustainability Index[d]	68	Explicit	"Vital environmental systems are maintained at healthy levels, and to the extent to which levels are improving rather than deteriorating" [and] "levels of anthropogenic stress are low enough to engender no demonstrable harm to its environmental systems."	Resilience to environmental disturbances ("People and social systems are not vulnerable (in the way of basic needs such as health and nutrition) to environmental disturbances; becoming less vulnerable is a sign that a society is on a track to greater sustainability"); "institutions and underlying social patterns of skills, attitudes, and networks that foster effective responses to environmental challenges"; and cooperation among countries "to manage common environmental problems"	Not stated; uses most recent data as of 2002 and includes some indicators of recent change (such as deforestation) or predicted change (such as population in 2025)
Genuine Progress Indicator[e]	26	Explicit	Clean air, land, and water	Economic performance, families, and security	Not stated; computed annually from 1950–2000
Global Scenario Group[f]	65	Explicit	"Preserving the essential health, services, and beauties of the earth requires stabilizing the climate at safe levels, sustaining energy, materials, and water resources, reducing toxic emissions, and maintaining the world's ecosystems and habitats."	Institutions to "meet human needs for food, water, and health, and provide opportunities for education, employment and participation"	Through 2050

Table 32.1 Continued

Indicator initiative	*Number of indicators*	*Implicit or explicit definition?*	*What is to be sustained?*	*What is to be developed?*	*For how long?*
Ecological Footprint[g]	6	Explicit	"The area of biologically productive land and water required to produce the resources consumed and to assimilate the wastes produced by humanity"		Not explicitly stated; computed annually from 1961–1999
U.S. Interagency Working Group on Sustainable Development Indicators[h]	40	Explicit	Environment, natural resources, and ecosystem services	Dignity, peace, equity, economy, employment, safety, health, and quality of life	Current and future generations
Costa Rica[i]	255	Implicit	Ecosystem services, natural resources, and biodiversity	Economic and social development	Not stated: includes some time series dating back to 1950
Boston Indicator Project[j]	159	Implicit	Open/green space, clean air, clean water, clean land, valued ecosystems, biodiversity, and aesthetics	Civil society, culture, economy, education, housing, health, safety, technology, and transportation	Not stated; uses most recent data as of 2000 and some indicators of recent change (such as change in poverty rates)
State Failure Task Force[k]	75	Explicit		Intrastate peace/security	Two years
Global Reporting Initiative[l]	97	Implicit	Reduced consumption of raw materials and reduced emissions of environmental contaminants from production or product use	Profitability, employment, diversity of workforce, dignity of workforce, health/safety of workforce, and health/safety/privacy of customers	Current reporting year

Source: Adapted from T. M. Parris and R. W. Kates, "Characterizing and Measuring Sustainable Development," *Annual Review of Environment and Resources* 28 (2003): 559–86.

[a] United Nations Division of Sustainable Development, *Indicators of Sustainable Development: Guidelines and Methodologies* (2001), http://www.un.org/esa/sustdev/natlinfo/indicators/indisd/indisd-mg2001.pdf.

[b] Consultative Group on Sustainable Development Indicators, http://www.iisd.org/cgsdi/.

[c] R. Prescott-Allen, *The Wellbeing of Nations: A Country-by-Country Index of Quality of Life and Environment* (Washington DC: Island Press, 2001).

[d] World Economic Forum, *2002 Environmental Sustainability Index* (Davos, Switzerland: World Economic Forum, 2002), http://www.ciesin.org/indicators/ESI/downloads.html; and D. C. Esty and P. K. Cornelius, *Environmental Performance Measurement: The Global Report 2001–2002* (Oxford, UK: Oxford University Press, 2002).

[e] C. Cobb, M. Glickman, and C. Cheslog, *The Genuine Progress Indicator: 2000 Update* (Oakland, CA: Redefining Progress, 2000).

[f] P. Raskin et al., *The Great Transition: The Promise and Lure of the Times Ahead* (Boston, MA: Stockholm Environmental Institute, 2002), http://www.tellus.org/seib/publications/Great_Transitions.pdf; and P. Raskin, G. Gallopin, P. Gutman, A. Hammond, and R. Swart, *Bending the Curve: Toward Global Sustainability*, Polestar Report 8 (Boston, MA: Stockholm Environmental Institute, 1998), http://www.tellus.org/seib/publications/bendingthecurve.pdf.

[g] M. Wackernagel et al., "Tracking the Ecological Overshoot of the Human Economy," *Proceedings of the National Academy Science* 99, no. 14 (2002): 9266–71; and M. Wackernagel, C. Monfreda, and D. Deumling, *Ecological Footprint of Nations: November 2002 Update* (Oakland, CA: Redefining Progress, 2002).

[h] U.S. Interagency Working Group on Sustainable Development Indicators (WGSDI), *Sustainable Development in the United States: An Experimental Set of Indicators*, IWGSDI Report PR42.8:SU 8/EX 7 (Washington, DC, 1998).

[i] Sistema de Indicadores sobre Desarrollo Sostenible (System of Indicators for Sustainable Development), *Principales Indicadores de Costa Rica* (Principal Indicators of Costa Rica) (San José, Costa Rica: Ministerio de Planificación Nacional y Política Económica (Ministry of National Planning and Political Economy), 1998), http://www.mideplan.go.cr/sides/.

[j] The Boston Indicator Project, *The Wisdom of Our Choices: Boston's Indicators of Progress, Change and Sustainability 2000* (Boston, MA: Boston Foundation, 2002), http://www.tbf.org/indicators/shared/news.asp?id=1542.

[k] D. C. Esty et al., 1998. "The State Failure Project: Early Warning Research for US Foreign Policy Planning," in J. L. Davies and T. R. Gurr, eds., *Preventive Measures: Building Risk Assessment and Crisis Early Warning Systems* (Boulder, CO: Rowman & Littlefield), 27–38; and D. C. Esty, J. A. Goldstone, T. R. Gurr, P. T. Surko, and A. N. Unger, *Working Paper: State Failure Task Force Report* (McLean, VA: Science Applications International Corporation, 1995); State Failure Task Force, "State Failure Task Force Report, Phase II Findings," *Environmental Change and Security Project Report* 5 (1999): 49–72.

[l] Global Reporting Initiative, http://www.globalreporting.org/.

BOX 32.1 VALUES UNDERLYING THE MILLENNIUM DECLARATION

The Millennium Declaration – which outlines 60 goals for peace; development; the environment; human rights; the vulnerable, hungry, and poor; Africa, and the United Nations – is founded on a core set of values described as follows.

"We consider certain fundamental values to be essential to international relations in the twenty-first century. These include:

- **Freedom.** Men and women have the right to live their lives and raise their children in dignity, free from hunger and from the fear of violence, oppression or injustice. Democratic and participatory governance based on the will of the people best assures these rights.
- **Equality.** No individual and no nation must be denied the opportunity to benefit from development. The equal rights and opportunities of women and men must be assured.
- **Solidarity.** Global challenges must be managed in a way that distributes the costs and burdens fairly in accordance with basic principles of equity and social justice. Those who suffer or who benefit least deserve help from those who benefit most.
- **Tolerance.** Human beings must respect one other, in all their diversity of belief, culture and language. Differences within and between societies should be neither feared nor repressed, but cherished as a precious asset of humanity. A culture of peace and dialogue among all civilizations should be actively promoted.
- **Respect for nature.** Prudence must be shown in the management of all living species and natural resources, in accordance with the precepts of sustainable development. Only in this way can the immeasurable riches provided to us by nature be preserved and passed on to our descendants. The current unsustainable patterns of production and consumption must be changed in the interest of our future welfare and that of our descendants.
- **Shared responsibility.** Responsibility for managing worldwide economic and social development, as well as threats to international peace and security, must be shared among the nations of the world and should be exercised multi-laterally. As the most universal and most representative organization in the world, the United Nations must play the central role."[1]

1. United Nations General Assembly, "United Nations Millennium Declaration." Resolution 55/2. United Nations A/RES/55/2, 18 September 2000, page x.

Values

Still another mode of defining sustainable development is through the values that represent or support sustainable development.[25] But values, like sustainable development, have many meanings. In general, values are expressions of, or beliefs in, the worth of objects, qualities, or behaviors. They are typically expressed in terms of goodness or desirability or, conversely, in terms of badness or avoidance. They often invoke feelings, define or direct us to goals, frame our attitudes, and provide standards against which the behaviors of individuals and societies can be judged. As such, they often overlap with sustainability goals and indicators. Indeed, the three pillars of sustainable development; the benchmark goals of the Millennium Declaration, the Sustainability Transition, and the Great Transition; and the many indicator initiatives are all expressions of values.

But these values, as described in the previous sections, do not encompass the full range of values supporting sustainable development. One explicit statement of supporting values is found in the Millennium Declaration. Underlying the 60 specific goals of the Millennium Declaration are an articulated set of fundamental values seen as essential to international relations: freedom, equality, solidarity, tolerance, respect for nature, and shared responsibility (see Box 32.1).

The Millennium Declaration was adopted by the UN General Assembly, but the origins of the declaration's set of fundamental values are unclear. In contrast, the origins of the Earth Charter Initiative – which defines the Earth Charter as a "declaration of fundamental principles for building a just, sustainable, and peaceful global society in the 21st century"[26] – is well documented. The initiative answers the call of the World Commission on Environment and Development for creation of "a universal declaration" that would "consolidate and extend relevant legal principles," create "new norms . . . needed to maintain livelihoods and life on our shared planet," and "guide state behavior in the transition to sustainable development."[27] An effort to draft a charter at the 1992 Earth Summit was unsuccessful. In 1994 a new Earth Charter Initiative was launched that involved "the most open and participatory consultation process ever conducted in connection with an international document. Thousands of individuals and hundreds of organizations from all regions of the world, different cultures, and diverse sectors of society . . . participated."[28] Released in the year 2000, the Earth Charter has been endorsed by more than 14,000 individuals and organizations worldwide representing millions of members, yet it has failed to attain its desired endorsement or adoption by the 2002 World Summit on Sustainable Development or the UN General Assembly.

The values of the Earth Charter are derived from "contemporary science, international law, the teachings of indigenous peoples, the wisdom of the world's great religions and philosophical traditions, the declarations and reports of the seven UN summit conferences held during the 1990s, the global ethics movement, numerous non-governmental declarations and people's treaties issued over the past thirty years, and best practices for building sustainable communities."[29] For example, in 1996, more than 50 international law instruments were surveyed and summarized in *Principles of Environmental Conservation and Sustainable Development: Summary and Survey*.[30] Four first-order principles were identified and expressed in the Earth Charter as the community of life, ecological integrity, social and economic justice, and democracy, nonviolence, and peace. Sixteen second-order principles expand on these four, and 61 third-order principles elaborate on the 16. For example, the core principal of social and economic justice is elaborated by principles of equitable economy, eradication of poverty, and the securing of gender equality and the rights of indigenous peoples. In turn, each of these principles is further explicated with three or four specific actions or intentions.[31]

Practice

Finally – and in many ways, most importantly – sustainable development is defined in practice. The practice includes the many efforts at defining the concept, establishing goals, creating indicators, and asserting values. But additionally, it includes developing social movements, organizing institutions, crafting sustainability science and technology, and negotiating the grand compromise among those who are principally concerned with nature and environment, those who value economic development, and those who are dedicated to improving the human condition.

A social movement

Sustainable development can be viewed as a social movement – "a group of people with a common ideology who try together to achieve certain general goals."[32] In an effort to encourage the creation of a broadly based social movement in support of sustainable development, UNCED was the first international, intergovernmental conference to provide full access to a wide range of nongovernmental organizations (NGOs) and to encourage an independent Earth Summit at a nearby venue. More than 1,400 NGOs and 8,000 journalists participated.[33] One social movement launched from UNCED was the effort described above to create an Earth Charter, to ratify it, and to act upon its principles.

In 2002, 737 new NGOs[34] and more than 8,046 representatives of major groups (business, farmers, indigenous peoples, local authorities, NGOs, the scientific and technological communities, trade unions, and women) attended the World Summit on Sustainable Development in Johannesburg. These groups organized themselves into approximately 40 geographical and issue-based caucuses.[35]

But underlying this participation in the formal international sustainable development events are a host of social movements struggling to identify what sustainable development means in the context of specific places and peoples. One such movement is the effort of many communities, states, provinces, or regions to engage in community exercises to define a desirable sustainable future and the actions needed to attain it. Examples include Sustainable Seattle,[36] Durban's Local Agenda 21 Programme,[37] the Lancashire County Council Local Agenda 21 Strategy,[38] and the Minnesota Sustainable Development Initiative.[39]

Three related efforts are the sustainable livelihoods movement, the global solidarity movement, and the corporate responsibility movement.[40] The movement for sustainable livelihoods consists of local initiatives that seek to create opportunities for work and sustenance that offer sustainable and credible alternatives to current processes of development and modernization. Consisting primarily of initiatives in developing countries, the movement has counterparts in the developed world, as seen, for example, in local efforts in the United States to mandate payment of a "living wage" rather than a minimum wage.

The global solidarity movement seeks to support poor people in developing countries in ways that go beyond the altruistic support for development funding. Their campaigns are expressed as antiglobalization or "globalization from below"[41] in critical appraisals of major international institutions, in the movement for the cancellation of debt,[42] and in critiques of developed-world policies – such as agricultural subsidies – that significantly impact developing countries and especially poor people.[43]

The corporate responsibility movement has three dimensions: various campaigns by NGOs to change corporate environmental and social behavior;[44] efforts by corporations to contribute to sustainable development goals and to reduce their negative environmental and social impacts;[45] and international initiatives such as the UN Global Compact[46] or the World Business Council for Sustainable Development[47] that seek to harness the knowledge, energies, and activities of corporations to better serve nature and society. For instance, in the just-selected Global 100, the most sustainable corporations in the world, the top three corporations were Toyota, selected for its leadership in introducing hybrid vehicles; Alcoa, for management of materials and energy efficiency; and British Petroleum, for leadership in greenhouse gas emissions reduction, energy efficiency, renewables, and waste treatment and handling.[48]

A related social movement focuses on excessive material consumption and its impacts on the environment and society and seeks to foster voluntary simplicity of one form or another. These advocates argue that beyond certain thresholds, ever-increasing consumption does not increase subjective levels of happiness, satisfaction, or health.[49] Rather, it often has precisely the opposite effect. Thus, these efforts present a vision of "the good life" in which people work and consume less than is prevalent in today's consumer-driven affluent societies.

As with any social movement, sustainable development encounters opposition. The opponents of sustainable development attack from two very different perspectives: At one end of the spectrum are those that view sustainable development as a top-down attempt by the United Nations to dictate how the people of the world should live their lives – and thus as a threat to individual freedoms and property rights.[50] At the other end are those who view sustainable development as capitulation that implies development as usual, driven by the interests of big business and multilateral institutions and that pays only lip service to social justice and the protection of nature.[51]

Institutions

The goals of sustainable development have been firmly embedded in a large number of national, international, and nongovernmental institutions. At the intergovernmental level, sustainable development is now found as a central theme throughout the United Nations and its specialized agencies. Evidence of this shift can be seen in the creation of the Division of Sustainable Development within the United Nations Department of Economic and Social Affairs, the establishment of a vice president for environmentally and socially sustainable development at the World Bank, and the declaration of the United Nations Decade of Education for Sustainable Development. Similarly, numerous national and local governmental entities have been established to create and monitor sustainable development strategies.[52] According to a recent survey by the International Council for Local Environment Initiatives, "6,416 local authorities in 113 countries have either made a formal commitment to Local Agenda 21 or are actively undertaking the process," and the number of such processes has been growing dramatically.[53] In addition to these governmental efforts, sustainable development has emerged in the organization charts of businesses (such as Lafarge[54]), consultancies (including CH2M Hill[55]), and investment indices (such as the Dow Jones Sustainability Index).

Sustainability science and technology

Sustainable development is also becoming a scientific and technological endeavor that, according to the Initiative on Science and Technology for Sustainable Development, "seeks to enhance the contribution of knowledge to environmentally sustainable human development around the world."[56] This emerging enterprise is focused on deepening our understanding of socio-ecological systems in particular places while exploring innovative mechanisms for producing knowledge so that it is relevant, credible, and legitimate to local decisionmakers.[57]

The efforts of the science and technology community to contribute to sustainable development is exemplified in the actions of the major Academies of Science[58] and International Disciplinary Unions,[59] in collaborative networks of individual scientists and technologists,[60] in emerging programs of interdisciplinary education,[61] and in many efforts to supply scientific support to communities.[62]

A grand compromise

One of the successes of sustainable development has been its ability to serve as a grand compromise between those who are principally concerned with nature and environment, those who value economic development, and those who are dedicated to improving the human condition. At the core of this compromise is the inseparability of environment and development described by the World Commission on Environment and Development. Thus, much of what is described as sustainable development in practice are negotiations in which workable compromises are found that address the environmental, economic, and human development objectives of competing interest groups. Indeed, this is why so many definitions of sustainable development include statements about open and democratic decisionmaking.

At the global scale, this compromise has engaged the wealthy and poor countries of the world in a common endeavor. Before this compromise was formally adopted by UNCED, the poorer countries of the world often viewed demands for greater environmental protection as a threat to their ability to develop, while the rich countries viewed some of the development in poor countries as a threat to valued environmental resources. The concept of sustainable development attempts to couple development aspirations with the need to preserve the basic life support systems of the planet.

So, what is sustainable development?

Since the Brundtland Commission first defined sustainable development, dozens, if not hundreds, of scholars and practitioners have articulated and promoted their own alternative definition; yet a clear, fixed, and immutable meaning remains elusive. This has led some observers to call sustainable development an oxymoron: fundamentally contradictory and irreconcilable. Further, if anyone can redefine and reapply the term to fit their purposes, it becomes meaningless in practice, or worse, can be used to disguise or greenwash socially or environmentally destructive activities.

Yet, despite these critiques, each definitional attempt is an important part of an ongoing dialogue. In fact, sustainable development draws much of its resonance, power, and creativity from its very ambiguity. The concrete challenges of sustainable development are at least as heterogeneous and complex as the diversity of human societies and natural ecosystems around the world. As a concept, its malleability allows it to remain an open, dynamic, and evolving idea that can be adapted to fit these very different situations and contexts across space and time. Likewise, its openness to interpretation enables

participants at multiple levels, from local to global, within and across activity sectors, and in institutions of governance, business, and civil society to redefine and reinterpret its meaning to fit their own situation. Thus, the concept of sustainability has been adapted to address very different challenges, ranging from the planning of sustainable cities to sustainable livelihoods, sustainable agriculture to sustainable fishing, and the efforts to develop common corporate standards in the UN Global Compact and in the World Business Council for Sustainable Development.

Despite this creative ambiguity and openness to interpretation, sustainable development has evolved a core set of guiding principles and values, based on the Brundtland Commission's standard definition to meet the needs, now and in the future, for human, economic, and social development within the restraints of the life support systems of the planet. Further, the connotations of both of the phrase's root words, "sustainable" and "development" are generally quite positive for most people, and their combination imbues this concept with inherent and near-universal agreement that sustainability is a worthwhile value and goal – a powerful feature in diverse and conflicted social contexts.

Importantly, however, these underlying principles are not fixed and immutable but the evolving product of a global dialogue, now several decades old, about what sustainability should mean. The original emphasis on economic development and environmental protection has been broadened and deepened to include alternative notions of development (human and social) and alternative views of nature (anthropocentric versus ecocentric). Thus, the concept maintains a creative tension between a few core principles and an openness to reinterpretation and adaptation to different social and ecological contexts.

Sustainable development thus requires the participation of diverse stakeholders and perspectives, with the ideal of reconciling different and sometimes opposing values and goals toward a new synthesis and subsequent coordination of mutual action to achieve multiple values simultaneously and even synergistically. As real-world experience has shown, however, achieving agreement on sustainability values, goals, and actions is often difficult and painful work, as different stakeholder values are forced to the surface, compared and contrasted, criticized and debated. Sometimes individual stakeholders find the process too difficult or too threatening to their own values and either reject the process entirely to pursue their own narrow goals or critique it ideologically, without engaging in the hard work of negotiation and compromise. Critique is nonetheless a vital part of the conscious evolution of sustainable development – a concept that, in the end, represents diverse local to global efforts to imagine and enact a positive vision of a world in which basic human needs are met without destroying or irrevocably degrading the natural systems on which we all depend.

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REVIEW AND DISCUSSION QUESTIONS

1. According to the authors, what is the "standard definition" of sustainable development?
2. In the narrowest sense, what does pursuing sustainable development involve? How about in the broadest sense?
3. How did the Board on Sustainable Development refine the time horizon and goals of sustainable development in 1995?
4. What are some of the fundamental values that the idea of sustainable development is based on?
5. Come up with a definition of sustainable development that makes sense to you and discuss the advantages and limitations of your definition.

accounts, or buy insurance. The author blames mostly the inability of governments to create the conditions that allow the financial industry to develop. Inadequate supervision of banks, for example, encourages risky loans and downright fraud, decreasing people's willingness to deposit their money in the banking system; widespread corruption raises the cost of getting loans; and unreliable power supply makes it impossible to run modern financial institutions that rely on computer networks. But new technologies are helping overcome some of these problems, and private firms are showing increasing interest in serving a market where demand for financial services is very strong, although profit opportunities were seen as limited until recently.

There is wide agreement among development economists – and increasing evidence – that the role of the financial system in promoting economic development is extremely important. Just as well-functioning financial systems can stimulate productive investment, economic growth, and poverty reduction, inefficient and poorly regulated financial systems can make it nearly impossible for a country to achieve economic progress. The spread of microcredit has shown the tremendous impact that financial services can have in helping the poor raise their standards of living. Access to these services cannot be expected to eradicate poverty by itself – we have seen that development is a complex process with many components. But anything that helps channel scarce financial resources to people with entrepreneurial ideas has the potential to promote economic development. And to the extent that taking out small loans or insuring against risk makes it easier for the poor in developing countries to achieve their personal goals, financial services promote human development directly.

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Chapter 33

Diana Farrell and Susan Lund

UNLEASHING INDIA'S POTENTIAL

The key is to modernize the financial system

A CASUAL OBSERVER MIGHT INFER from India's flourishing stock markets, fast-growing mutual funds, and capable private banks that the country's financial system is one of its strengths. But closer inspection reveals that tight government control over almost every other part is undermining the overall performance and curbing India's economic resurgence. If India is to sustain rapid GDP growth and spread its benefits more broadly, it needs a financial system that is comprehensively market-oriented and efficient.

The financial system's shortcomings largely fall into three areas. First, India's formal financial institutions attract only half of Indian households' savings, and none of the $200 billion they keep tied up in gold. Second, India's financial institutions allocate more than half of the capital they do attract to the least productive areas of the economy: state-owned enterprises, agriculture, and the unorganized sector (mostly made up of tiny businesses). The more productive corporations in India's dynamic private sector receive only 43 percent of all commercial credit. Third, India's financial system is inefficient in both of its main tasks of mobilizing savings and allocating capital. That means Indian borrowers pay more for their capital and depositors receive less than in comparable economies.

These failings place a heavy burden on India's economy, and fixing them would give it an immense boost. Research by the McKinsey Global Institute (MGI) calculates that an integrated program of financial system reforms could add $48 billion to GDP each year. This would raise India's real GDP growth rate to 9.4 percent per year, from the current three-year average of roughly 7 percent. India's growth would be roughly on par with China's and just shy of the government's 10 percent target, and household incomes would be 30 percent above current projections by 2014, lifting millions more households than expected out of poverty.

Where they are saving

Not long into our study we discovered that, despite India's 130-year-old stock market, long history of private banks, and generally well-developed public institutions, the nation's financial system intermediates a surprisingly small amount of the economy's total capital. This is demonstrated by the relative shallowness of India's financial system, measured by the value of all financial assets in the country relative to GDP. At 160 percent, India's financial depth is significantly lower than that of other fast-growing Asian economies, notably China (Figure 33.1).

Closer examination revealed just how much of the savings and investment fueling India's economic growth occurs outside India's formal financial system. Indian households save 28 percent of their disposable income, but invest only half of these savings in bank deposits and other financial assets. Of the other half, they invest 30 percent in housing, and put the remainder – which amounted to $24 billion last year – into machinery and equipment for the 44 million tiny household enterprises that make up the economy's unorganized sector. This is despite the fact that, with a few exceptions, household businesses are below efficient scale, lack technology and business know-how, and have low levels of productivity. In 2005, Indian households also bought more than $10 billion worth of gold, arguably another form of non-financial savings, and are now the world's largest gold consumers.

India's economy would grow faster if the financial system could attract more of the nation's savings and channel them into larger-scale, more productive enterprises. We calculate that a program of reforms that helped India's financial system to capture and invest more productively just half of the household savings now used for gold purchases and investments in subscale household enterprises could add $7 billion each year to GDP.

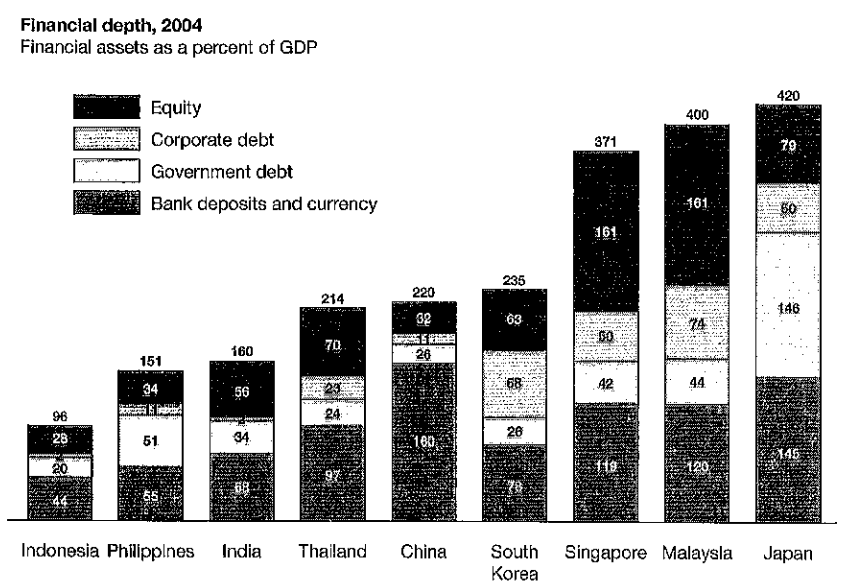


Figure 33.1 India's financial depth remains low compared to other nations

Note: Numbers may not add due to rounding.

Source: McKinsey Global Institute Global Financial Stock Database; team analysis.

Financing the least-productive investments

On the face of it, India's financial system is better at allocating capital than those in many other emerging markets. It has some high-performing private and foreign banks, and its stock of non-performing loans, at about 5 percent of all loan balances, is manageable. It has a well-run equity market that lists mostly private companies.

But a closer look reveals significant room for improvement. India's financial system in fact channels only a minority of the savings it does manage to capture to entrepreneurs in the private sector. The majority of funding goes to the government, and to those investments that the government designates as priorities. India's private corporations receive just 43 percent of total commercial credit – a level that has not changed much since 1999.

The rest goes to state-owned enterprises, agriculture, and the tiny businesses in the unorganized sector. This pattern of capital allocation impedes growth because state-owned enterprises are, on average, only half as productive as India's private firms, and require twice as much investment to achieve the same additional output. Productivity in agriculture and the micro-businesses of the unorganized sector is only one-tenth as high as in India's modern private firms, and investment efficiency is commensurately low.

India's equity market, as we have noted, does a somewhat better job of funding the private sector – private company shares represent 70 percent of market capitalization. But new equity issues account for little of the funding raised by companies in any country, and in India, they amount to just 2 percent of the gross funds they raise. Not surprisingly, Indian companies rely heavily on retained earnings to fund their operations and investments – these account for nearly 80 percent of the funds they raise, a far higher level than in other Asian economies (Figure 33.2).

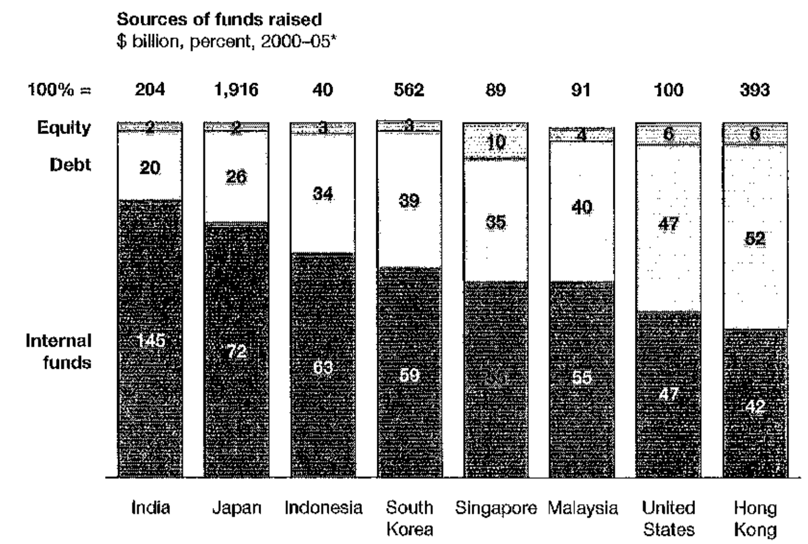


Figure 33.2 Indian firms rely heavily on retained earnings

*Based on sample of 160 companies per country outside of United States. Companies were ranked by gross sales, and 40 companies from each quartile were taken as the sample. U.S. sample includes all listed companies with revenues exceeding $500 million, 1995 to 2004.

Source: Bloomberg; McKinsey Global Institute analysis.

Reforms that enabled the financial system to channel a larger portion of credit to private companies would raise the economy's productivity. State-owned firms and household enterprises would need to improve their operations to compete successfully for finance. Accompanied by complementary reforms to India's labor and product markets, India would be able to get more output for each rupee invested with a resulting boost to GDP we calculate at up to $19 billion a year.

In the government's grip

The government's tight control of India's financial system explains its poor allocation of capital. Regulations oblige banks and other intermediaries to direct a high proportion of their funding to the government, and to its priority investments. Banks have to hold 25 percent of their assets in government bonds – and in practice, the state-owned banks that dominate the banking sector choose to hold even more. Government policies then require banks to direct 36 percent of their loans to agriculture, household businesses, and the state's other priority sectors. However, loans directed in this way have higher default rates than others and are more costly to administer because of their small size. As well as diverting credit from the more productive private sector, this policy also lowers lending overall, since banks' unprofitable directed lending has to expand in proportion with their discretionary lending. Not surprisingly, Indian banks lend just 60 percent of deposits, compared to 83 percent for Thai banks, 90 percent for South Korean banks, and 130 percent for Chinese banks.

Similar policies require that 90 percent of the assets of provident funds (essentially pension funds) and 50 percent of life insurance assets are held in government bonds and related securities. Without these rules, pension funds, mutual funds, and insurance companies would be an important source of demand for corporate bonds and equities in India, as they are in other countries.

These policies have allowed India's government and state-owned enterprises to absorb an astonishing 70 percent of the savings funneled into the financial system since 2000. Some of this funding flows to rural areas and to public sector enterprises to ensure that employment remains robust. But the government also maintains these policies to finance a persistently large budget deficit that, together with state deficits, has consistently averaged around 9 percent of GDP over the past 25 years, despite large variations in the macroeconomic environment over that time.

A costly intermediary

The government's influence on India's financial system also lowers its efficiency and raises the cost of financial intermediation. India has the highest level of state ownership of banks of any major economy today, apart from China – and even China is now seeking foreign investment in most of its major commercial banks. India's new private banks have a combined market share of only 9 percent. Foreign banks account for another 5 percent of deposits, but cannot expand because of limits on foreign investment in banking.

The prevalence of state-owned banks means that there is little competitive pressure to improve operations. These banks meet their costs by maintaining high margins between lending and deposit rates: bank margins are 6.3 percent in India, compared with an average of 3.1 percent in the case of South Korea, Malaysia, Singapore, and the United States.

Banks also face negligible competition from India's tiny corporate bond market, whose value amounts to just 2 percent of GDP. The reason the market has remained so small is a mass of regulations that unnecessarily raise the cost of issuing bonds, lengthen listing procedures, and increase disclosure requirements. To avoid these hassles, most Indian companies look for funding elsewhere. Some turn to private placements of debt, which total $44 billion – more than ten times the amount of publicly traded bonds. The largest companies also issue international bonds, despite the currency risk involved.

However, most sizable companies are forced to seek funding from banks, and this in turn crowds out bank lending to smaller companies and consumers, the banks' natural customers. If India were to develop a vibrant corporate bond market and the financial system were to offer the mix of bonds and bank loans seen in other emerging economies, India's companies – large and small – would enjoy substantially lower funding costs.

Even India's equity market is constrained by heavy regulation elsewhere in the financial sector. The market would function even better if domestic financial intermediaries, with their long-term mindset, held more shares – but they are currently required to invest in government bonds. Instead, corporate insiders own half of all shares, and this not only weakens the degree of market oversight but also potentially lowers the quality of governance. Retail investors own only 17 percent of shares, but account for 85 percent of trading – suggesting that they view the market as a gambling opportunity rather than a source of steady, long-term returns.

Reform will spur growth

The necessary reforms will primarily affect the banking sector, the corporate bond market, and India's domestic institutional investors. But the set of reforms must be carefully integrated, since many problems in India's financial system cut across its various markets. To achieve their full potential, reforms in one area will require complementary changes in others – for instance, changes in capital account and foreign investment policies.

Still, a single principle should guide the whole reform program. The government must loosen its grip on the financial system and allow financial institutions and intermediaries to respond to market signals. This means lifting directed lending policies and restrictions on the asset holdings of banks and other intermediaries, in order to release more capital for more productive investment in the Indian economy. It also requires reducing state ownership in the banking sector, developing a corporate bond market, and easing the many regulations holding back the development of pensions, mutual funds, and insurance companies. In addition to raising efficiency and returns, so doing will also enable intermediaries to create more attractive consumer financial products, draw a larger share of household savings into the financial system, and increase total investment in the economy.

Financial sector reforms are also needed to allow reforms of the rest of the Indian economy to succeed. To achieve higher rates of growth, both corporate and infrastructure investments must increase, and this will require a robust bond market to provide long-term funding, as well as more investment by foreign companies in many sectors. Faster growth will, in turn, necessitate a large increase in construction of both residential housing and commercial properties – and that will be impossible without similarly rapid growth in mortgage financing, which currently comprises only 3 percent of GDP.

Some of India's regulators are understandably resistant to financial system reform because they perceive it to involve risks and political trade-offs. They fear, for instance, that abandoning directed lending would stifle growth in the rural economy, potentially increasing rural unemployment. However, India's rural poor, as well as its entrepreneurs, would be better served if the financial system was free to allocate all its available capital to more productive businesses that can create waged jobs. If total liberation of the financial system seems a step too far, the government could, as a transitional measure, provide market-based incentives – such as tax breaks or subsidies – for banks to go on lending to priority areas rather than direct their lending by fiat.

Expanding the most productive parts of the Indian economy is, over time, not only the best way to increase the number of well-paid jobs and lift more people out of poverty, but also to fill the public purse. The last fifteen years of liberalization of the real economy have allowed India's economy to surge ahead. It is now time that the Indian government allowed its financial system to do the same.

REVIEW AND DISCUSSION QUESTIONS

1. According to Farrell and Lund, what are the main problems with India's financial system?
2. Indian households invest a substantial amount of money in small, family-run businesses. Why do the authors believe that this kind of investment is not the best way to promote economic growth?
3. What are the major differences between how firms in India and firms in other Asian countries pay for their investment?
4. In what ways does the Indian Government intervene in the financial system?
5. Do you agree with the authors' recommendations for improving Indian financial markets? Why or why not?

Chapter 34

Muhammad Yunus

BANKER TO THE POOR

Micro-lending and the battle against world poverty

THE STOOL MAKERS OF JOBRA VILLAGE

IN 1976, I BEGAN VISITING the poorest households in Jobra to see if I could help them directly in any way. There were three parts to the village: a Muslim, a Hindu, and a Buddhist section. When I visited the Buddhist section, I would often take one of my students, Dipal Chandra Barua, a native of the Buddhist section, along with me. Otherwise, a colleague, Professor H. I. Latifee, would usually accompany me. He knew most of the families and had a natural talent for making villagers feel at ease.

One day as Latifee and I were making our rounds in Jobra, we stopped at a rundown house with crumbling mud walls and a low thatched roof pocked with holes. We made our way through a crowd of scavenging chickens and beds of vegetables to the front of the house. A woman squatted on the dirt floor of the verandah, a half-finished bamboo stool gripped between her knees. Her fingers moved quickly, plaiting the stubborn strands of cane. She was totally absorbed in her work.

On hearing Latifee's call of greeting, she dropped her bamboo, sprang to her feet, and scurried into the house.

"Don't be frightened," Latifee called out. "We are not strangers. We teach up at the university. We are neighbors. We want to ask you a few questions, that is all."

Reassured by Latifee's gentle manner, she answered in a low voice, "There is nobody home."

She meant there was no male at home. In Bangladesh, women are not supposed to talk to men who are not close relatives.

Children were running around naked in the yard. Neighbors peered out at us from their windows, wondering what we were doing.

In the Muslim sections of Jobra, we often had to talk to women through bamboo walls or curtains. The custom of *purdah* (literally, "curtain" or "veil") kept married Muslim women in a state of virtual seclusion from the outside world. It was strictly observed in Chittagong District.

As I am a native Chittagonian and speak the local dialect, I would try to gain the confidence of Muslim women by chatting. Complimenting a mother on her baby was a natural way to put her at ease. I now picked up one of the naked children beside me, but he started to cry and rushed over to his mother. She let him climb into her arms.

"How many children do you have?" Latifee asked her.

"Three."

"He is very beautiful, this one," I said.

Slightly reassured, the mother came to the doorway, holding her baby. She was in her early twenties, thin, with dark skin and black eyes. She wore a red sari and had the tired eyes of a woman who labored every day from morning to night.

"What is your name?" I asked.

"Sufiya Begum."

"How old are you?"

"Twenty-one."

I did not use a pen and notepad, for that would have scared her off. Later, I only allowed my students to take notes on return visits.

"Do you own this bamboo?" I asked.

"Yes."

"How do you get it?"

"I buy it."

"How much does the bamboo cost you?"

"Five taka." At the time, this was about twenty-two cents.

"Do you have five taka?"

"No, I borrow it from the *paikars*."

"The middlemen? What is your arrangement with them?"

"I must sell my bamboo stools back to them at the end of the day as repayment for my loan."

"How much do you sell a stool for?"

"Five taka and fifty poysha."

"So you make fifty poysha profit?"

She nodded. That came to a profit of just two cents.

"And could you borrow the cash from the moneylender and buy your own raw material?"

"Yes, but the moneylender would demand a lot. People who deal with them only get poorer."

"How much does the moneylender charge?"

"It depends. Sometimes he charges 10 percent per week. But I have one neighbor who is paying 10 percent per day."

"And that is all you earn from making these beautiful bamboo stools, fifty poysha?"

"Yes."

Sufiya did not want to waste any more time talking. I watched as she set to work again, her small brown hands plaiting the strands of bamboo as they had every day for months and years on end. This was her livelihood. She squatted barefoot on the hard mud. Her fingers were callused, her nails black with grime.

How would her children break the cycle of poverty she had started? How could they go to school when the income Sufiya earned was barely enough to feed her, let alone shelter her family and clothe them properly? It seemed hopeless to imagine that her babies would one day escape this misery.

Sufiya Begum earned two cents a day. It was this knowledge that shocked me. In my university courses, I theorized about sums in the millions of dollars, but here before my eyes the problems of life and death were posed in terms of pennies. Something was wrong. Why did my university courses not reflect the reality of Sufiya's life? I was angry, angry at myself, angry at my economics department and the thousands of intelligent professors who had not tried to address this problem and solve it. It seemed to me the existing economic system made it absolutely certain that Sufiya's income would be kept perpetually at such a low level that she would never save a penny and would never invest in expanding her economic base. Her children were condemned to live a life of penury, of hand-to-mouth survival, just as she had lived it before them, and as her parents did before her. I had never heard of anyone suffering for the lack of *twenty-two cents*. It seemed impossible to me, preposterous. Should I reach into my pocket and hand Sufiya the pittance she needed for capital? That would be so simple, so easy. I resisted the urge to give Sufiya the money she needed. She was not asking for charity. And giving one person twenty-two cents was not addressing the problem on any permanent basis.

Latifee and I drove back up the hill to my house. We took a stroll around my garden in the late-afternoon heat. I was trying to see Sufiya's problem from her point of view. She suffered because the cost of the bamboo was five taka. She did not have the cash necessary to buy her raw materials. As a result, she could survive only in a tight cycle – borrowing from the trader and selling back to him. Her life was a form of bonded labor, or slavery. The trader made certain that he paid Sufiya a price that barely covered the cost of the materials and was just enough to keep her alive. She could not break free of her exploitative relationship with him. To survive, she needed to keep working through the trader.

Usurious rates have become so standardized and socially acceptable in Third World countries that the borrower rarely realizes how oppressive a contract is. Exploitation comes in many guises. In rural Bangladesh, one *maund* (approximately 37 kilograms) of husked rice borrowed at the beginning of the planting season has to be repaid with two *maunds* at harvest time. When land is used as security, it is placed at the disposal of the creditor, who enjoys ownership rights over it until the total amount is repaid. In many cases, a formal document such as a *bawnanama* establishes the right of the creditor. According to the *bawnanama*, the creditor usually refuses to accept any partial payment of the loan. After the expiration of a certain period, it also allows the creditor to "buy" the land at a predetermined "price." Another form of security is the *dadan* system, in which traders advance loans against standing crops for purchase of the crops at predetermined prices that are below the market rate. Sufiya Begum was producing her bamboo stools under a *dadan* arrangement with a *paikar*.

In Bangladesh, the borrowing is sometimes made for specific and temporary purposes (to marry off a daughter, to bribe an official, to fight a court case), but sometimes it is necessary for physical survival – to purchase food or medication or to meet some emergency situation. In such cases, it is extremely difficult for the borrower to extricate himself or herself from the burden of the loan. Usually the borrower will have to borrow again just to repay the prior loan and will ultimately wind up in a cycle of poverty like Sufiya. It seemed to me that Sufiya's status as a bonded slave would only change if she could find that five taka for her bamboo. Credit could bring her that money. She could then sell her products in a free market and charge the full retail price to the consumer. She just needed twenty-two cents.

The next day I called in Maimuna Begum, a university student who collected data for me, and asked her to help me make a list of people in Jobra, like Sufiya, who were dependent on traders. Within one week, we had a list prepared. It named forty-two people, who borrowed a total of 856 taka – less than 27 dollars.

"My God, my God. All this misery in all these families all for of the lack of twenty-seven dollars!" I exclaimed.

Maimuna stood there without saying a word. We were both sickened by the reality of it all.

My mind would not let this problem lie. I wanted to help these forty-two able-bodied, hard-working people. I kept going around and around the problem, like a dog worrying a bone. People like Sufiya were poor not because they were stupid or lazy. They worked all day long, doing complex physical tasks. They were poor because the financial institutions in the country did not help them widen their economic base. No formal financial structure was available to cater to the credit needs of the poor. This credit market, by default of the formal institutions, had been taken over by the local moneylenders. It was an efficient vehicle; it created a heavy rush of one-way traffic on the road to poverty. But if I could just lend the Jobra villagers the twenty-seven dollars, they could sell their products to anyone. They would then get the highest possible return for their labor and would not be limited by the usurious practices of the traders and moneylenders.

It was all so easy. I handed Maimuna the twenty-seven dollars and told her, "Here, lend this money to the forty-two villagers on our list. They can repay the traders what they owe them and sell their products at a good price."

"When should they repay you?" she asked.

"Whenever they can," I said. "Whenever it is advantageous for them to sell their products. They don't have to pay any interest. I am not in the money business."

Maimuna left, puzzled by this turn of events.

Usually when my head touches the pillow, I fall asleep within seconds, but that night sleep would not come. I lay in bed feeling ashamed that I was part of a society that could not provide twenty-seven dollars to forty-two skilled persons to make a living for themselves. It struck me that what I had done was drastically insufficient. If others needed capital, they could hardly chase down the head of an economics department. My response had been ad hoc and emotional. Now I needed to create an institutional answer that these people could rely on. What was required was an institution that would lend to those who had nothing. I decided to approach the local bank manager and request that his bank lend money to the poor. It seemed so simple, so straightforward. I fell asleep.

The next morning I climbed into my white Volkswagen beetle and drove to my local branch of the Janata Bank, a government bank and one of the largest in the country. Janata's university branch is located just beyond the gates of the campus on a stretch of road lined with tiny stores, stalls, and restaurants where local villagers sell students everything from betel nuts to warm meals, notebooks, and pens. It is here that the rickshaw drivers congregate when they are not ferrying students from their dormitories to their classrooms. The bank itself is housed in a single square room. Its two front windows are covered with bars and the walls are painted a dingy dark green. The room is filled with wooden tables and chairs. The manager, sitting in the back to the left, waved me over.

"What can I do for you, sir?"

The office boy brought us tea and cookies. I explained why I had come. "The last time I borrowed from you was to finance the Three Share Program in Jobra village. Now I have a new proposal. I want you to lend money to the poor people in Jobra. The amount involved is very small. I have already done it myself. I have lent twenty-seven dollars to forty-two people. There will be many more poor people who will need money. They need this money to carry on their work, to buy raw materials and supplies."

"What kind of materials?" The bank officer looked puzzled, as if this were some sort of new game whose rules he was not familiar with. He let me speak out of common respect for a university head, but he was clearly confused.

"Well, some make bamboo stools. Others weave mats or drive rickshaws. If they borrow money from a bank at commercial rates, they will be able to sell their products on the open market and make a decent profit that would allow them to live better lives. As it is now, they work as slaves and will never manage to get themselves out from under the heel of the wholesalers who lend them capital at usurious rates."

"Yes, I know about *mahajons* [moneylenders]," the manager replied.

"So I have come here today because I would like to ask you to lend money to these villagers."

The bank manager's jaw fell open, and he started to laugh. "I can't do that!"

"Why not?" I asked.

"Well," he sputtered, not knowing where to begin with his list of objections. "For one thing, the small amounts you say these villagers need to borrow will not even cover the cost of all the loan documents they would have to fill out. The bank is not going to waste its time on such a pittance."

"Why not?" I said. "To the poor this money is crucial for survival."

"These people are illiterate," he replied. "They cannot even fill out our loan forms."

"In Bangladesh, where 75 percent of the people do not read and write, filling out a form is a ridiculous requirement."

"Every single bank in the country has that rule."

"Well, that says something about our banks then, doesn't it?"

"Even when a person brings money and wants to put it in the bank, we ask him or her to write down how much she or he is putting in."

"Why?"

"What do you mean, 'Why?'"

"Well, why can't a bank just take money and issue a receipt saying, 'Received such and such amount of money from such and such a person?' Why can't the banker do it? Why must the depositors do it?"

"Well, how would you run a bank without people reading and writing?"

"Simple, the bank just issues a receipt for the amount of cash that the bank receives."

"What if the person wants to withdraw money?"

"I don't know . . . there must be a simple way. The borrower comes back with his or her deposit receipt, presents it to the cashier, and the cashier gives back the money. Whatever accounting the bank does is the bank's business."

The manager shook his head but did not answer this, as if he did not know where to begin.

"It seems to me your banking system is designed to be anti-illiterate," I countered.

Now the branch manager seemed irritated. "Professor, banking is not as simple as you think," he said.

"Maybe so, but I am also sure that banking is not as complicated as you make it out to be."

"Look, the simple truth is that a borrower at any other bank in any place in the world would have to fill out forms."

"Okay," I said, bowing to the obvious. "If I can get some of my student volunteers to fill out the forms for the villagers, that should not be a problem."

"But you don't understand, we simply cannot lend to the destitute," said the branch manager.

"Why not?" I was trying to be polite. Our conversation had something surreal about it. The branch manager had a smile on his face as if to say he understood that I was pulling his leg. This whole interview was humorous, absurd really.

They don't have any collateral," said the branch manager, expecting that this would put an end to our discussion.

"Why do you need collateral as long as you get the money back? That is what you really want, isn't it?"

"Yes, we want our money back," explained the manager. "But at the same time we need collateral. That is our guarantee."

"To me, it doesn't make sense. The poorest of the poor work twelve hours a day. They need to sell and earn income to eat. They have every reason to pay you back, just to take another loan and live another day! That is the best security you can have – their life."

The manager shook his head. "You are an idealist, Professor. You live with books and theories."

"But if you are certain that the money will be repaid, why do you need collateral?"

"That is our bank rule."

"So only those who have collateral can borrow?"

"Yes."

"It's a silly rule. It means only the rich can borrow."

"I don't make the rules, the bank does."

"Well, I think the rules should be changed."

"Anyway, we do not lend out money here."

"You don't?"

"No, we only take deposits from the faculty members and from the university."

"But don't banks make money by extending loans?"

"Only the head office makes loans. We are here to collect deposits from the university and its employees. Our loan to your Three Share Farm was an exception approved by our head office."

"You mean to say that if I came here and asked to borrow money, you would not lend it to me?"

"That is right." He laughed. It was evident the manager had not had such an entertaining afternoon in a long time.

"So when we teach in our classes that banks make loans to borrowers, that is a lie?"

"Well, you would have to go through the head office for a loan, and I don't know what they would do."

"Sounds like I need to talk to officials higher up."

"Yes, that would be a good idea."

As I finished my tea and got ready to leave, the branch manager said, "I know you'll not give up. But from what I know about banking, I can tell you for sure that this plan of yours will never take off."

A couple of days later, I arranged a meeting with Mr. R. A. Howladar, the regional manager of the Janata Bank, in his office in Chittagong. We had very much a repeat of the conversation I had with the Jobra branch manager, but Howladar did bring up the idea of a guarantor, a well-to-do person in the village who would be willing to act on behalf of the borrower. With the backing of a guarantor, the bank might consider granting a loan without collateral.

I considered the idea. It had obvious merit, but the drawbacks seemed insurmountable.

"I can't do that," I explained to Howladar. "What would prevent the guarantor from taking advantage of the person whose loan he was guaranteeing? He could end up a tyrant. He could end up treating that borrower as a slave."

There was a silence. It had become clear from my discussions with bankers in the past few days that I was not up against the Janata Bank per se but against the banking system in general.

"Why don't I become guarantor?" I asked.

"You?"

"Yes, can you accept me as guarantor for all the loans?"

The regional manager smiled. "How much money are you talking about?"

To give myself a margin of error and room to expand, I answered, "Altogether probably 10,000 taka ($300), not more than that."

"Well," he fingered the papers on his desk. Behind him I could see a dusty stack of folders in old bindings. Lining the walls were piles of similar pale blue binders, rising in teetering stacks to the windows. The overhead fan created a breeze that played with the files. On his desk, the papers were in a state of permanent fluttering, awaiting his decision.

"Well," he said. "I would say we would be willing to accept you as guarantor up to that amount, but don't ask for more money."

"It's a deal."

We shook hands. Then something occurred to me. "But if one of the borrowers does not repay, I will not step in to honor the defaulted loan."

The regional manager looked up at me uneasily, not certain why I was being so difficult.

"As guarantor, we could force you to pay."

"What would you do?"

"We could start legal proceedings against you."

"Fine. I would like that."

He looked at me as if I were crazy. That was just what I wanted. I felt angry. I wanted to cause some panic in this unjust, archaic system. I wanted to be the stick in the wheels that would finally stop this infernal machine. I was a guarantor, maybe, but I would not guarantee.

"Professor Yunus, you know very well we would never sue a department head who has personally guaranteed the loan of a beggar. The bad publicity alone would offset any money we might recover from you. Anyway, the loan is such a pittance it would not even pay for the legal fees, much less our administrative costs of recovering the money."

"Well, you are a bank, you must do your own cost-benefit analysis. But I will not pay if there is any default."

"You are making things difficult for me, Professor Yunus."

"I am sorry, but the bank is making things difficult for a lot of people – especially those who have nothing."

"I am trying to help. Professor."

"I understand. It is not you but banking rules I have a quarrel with."

After more such back and forth, Howladar concluded, "I will recommend your loan to the head office in Dhaka, and we will see what they say."

"But I thought you as regional officer had the authority to conclude this matter?"

"Yes, but this is far too unorthodox for me to approve. Authorization will have to come from the top."

It took six months of writing back and forth to get the loan formalized. Finally, in December 1976, I succeeded in taking out a loan from the Janata Bank and giving it to the poor of Jobra. All through 1977, I had to sign each and every loan request. Even when I was on a trip in Europe or the United States, the bank would cable or write to me for a signature rather than deal with any of the real borrowers in the village. I was the guarantor and as far as the bank officials were concerned I was the only one that counted. They did not want to deal with the poor who used their capital. And I made sure that the real borrowers, the ones I call the "banking untouchables," never had to suffer the indignity and demeaning harassment of actually going to a bank.

That was the beginning of it all. I never intended to become a moneylender. I had no intention of lending money to anyone. All I really wanted was to solve an immediate problem. Out of sheer frustration, I had questioned the most basic banking premise of collateral. I did not know if I was right. I had no idea what I was getting myself into. I was walking blind and learning as I went along. My work became a struggle to show that the financial untouchables are actually touchable, even huggable. To my great surprise, the repayment of loans by people who borrow without collateral has proven to be much better than those whose borrowings are secured by assets. Indeed, more than 98 percent of our loans are repaid. The poor know that this credit is their only opportunity to break out of poverty. They do not have any cushion whatsoever to fall back on. If they fall afoul of this one loan, they will have lost their one and only chance to get out of the rut.

A PILOT PROJECT IS BORN

I did not know anything about how to run a bank for the poor, so I had to learn from scratch. In January 1977, when Grameen started, I studied how others ran their loan operations and I learned from their mistakes. Conventional banks and credit cooperatives usually demand lump sum payments. Parting with a large amount of cash at the end of a loan period is often psychologically trying for borrowers. They try to delay the repayment as long as they can and in the process they make the loan grow bigger and bigger. In the end, they decide not to pay back the loan at all. Such long-term lump sum payments also prompt both borrowers and lenders to ignore difficulties that come up early on; rather than tackle problems as they appear, they hope that the problems will go away by the time the loan is due.

In structuring our credit program, I decided to do exactly the opposite of traditional banks. To overcome the psychological barrier of parting with large sums, I decided to institute a daily payment program. I made the loan payments so small that borrowers would barely miss the money. And for ease in accounting, I decided to ask that the loans be paid back fully in one year. Thus, a 365 taka loan could be paid at the rate of 1 taka a day over the course of one year.

To most of those who will read this book, a taka a day may seem like a laughable sum, but it does produce steady incremental gains. The power of the daily taka reminds me of the clever prisoner who was condemned to death. Brought before the king on his execution day, the prisoner was granted one last wish. He pointed to the chessboard at the right of the king's throne and said, "I wish only for a single grain of rice on one square of the chessboard and that that grain be doubled for each succeeding square."

"Granted," said the king, who could not fathom the power of geometrical progression. Soon the prisoner reigned over the entire kingdom.

Slowly my colleagues and I developed our own delivery-recovery mechanism and, of course, we made many mistakes along the way. We adapted our ideas and changed our procedures as we grew. For example, when we discovered that support groups were crucial to the success of our operations, we required that each applicant join a group of like-minded people living in similar economic and social conditions. Convinced that solidarity would be stronger if the groups came into being by themselves, we refrained from managing them, but we did create incentives that encouraged the borrowers to help one another succeed in their businesses. Group membership not only creates support and protection but also smoothes out the erratic behavior patterns of individual members, making each borrower more reliable in the process. Subtle and at times not-so-subtle peer pressure keeps each group member in line with the broader objectives of the credit program. A sense of intergroup and intragroup competition also encourages each member to be an achiever. Shifting the task of initial supervision to the group not only reduces the work of the bank but also increases the self-reliance of the individual borrowers. Because the group approves the loan request of each member, the group assumes moral responsibility for the loan. If any member of the group gets into trouble, the group usually comes forward to help.

In Jobra, we discovered that it is not always easy for borrowers to organize themselves into groups. A prospective borrower first has to take the initiative and explain how the bank works to a second person. This can be particularly difficult for a village woman. She often has a difficult time convincing her friends – who are likely to be terrified, skeptical, or forbidden by their husbands to deal with money – but eventually a second person, impressed by what Grameen has done for another household, will take the leap of joining the group. Then the two will go out and seek out a third member, then a fourth, and a fifth. Once the group of five is formed, we extend loans to two members of the group. If these two repay regularly for the next six weeks, two more members may request loans. The chairperson of the group is normally the last borrower of the five. But often, just when the group is ready, one of the five members changes her mind, saying, "No, my husband won't agree. He doesn't want me to join the bank." So the group falls back to four, or three, or sometimes back to one. And that one has to start all over again.

It can take anywhere from a few days to several months for a group to be recognized or certified by Grameen Bank. To gain recognition, all the members of a group of five prospective borrowers have to present themselves to the bank, undergo at least seven days of training on our policies, and demonstrate their understanding of those policies in an oral examination administered by a senior bank official. Each of the members must be individually tested. The night before her test, a borrower often gets so nervous that she lights a candle in a saint's shrine and prays to Allah for help. She knows that if she fails she will let down not only herself but also the others in her group. Though she has studied, she worries that she will not be able to answer the questions about the duties and responsibilities of a Grameen Bank member. What if she forgets? The bank worker will send the group away, telling all the members to study some more, and the others in the group will chastise her, saying, "For God's sake, even this you can't do right! You have ruined not only yourself but us as well."

Some critics argue that our rural clients are too submissive and that we can intimidate them into joining Grameen. Perhaps this is why we make our initiation process so challenging. The pressure provided by the group and the exam helps ensure that only those who are truly needy and serious about joining Grameen will actually become members. Those who are better off usually do not find it worthwhile. And even if they do, they will fail our means test and be forced to leave the group anyway. We want only courageous, ambitious pioneers in our micro-credit program. Those are the ones who will succeed.

Once all members pass the exam, the day finally comes when one of them asks for a first loan, usually about twenty-five dollars. How does she feel? Terrified. She cannot sleep at night. She struggles with the fear of failure, the fear of the unknown. The morning she is to receive her loan, she almost quits. Twenty-five dollars is simply too much responsibility for her. How will she ever be able to repay it? No woman in her extended family has ever had so much money. Her friends come around to reassure her, saying, "Look, we all have to go through it. We will support you. We are here for just that. Don't be scared. We will all be with you."

When she finally receives the twenty-five dollars, she is trembling. The money burns her fingers. Tears roll down her face. She has never seen so much money in her life. She never imagined it in her hands. She carries the bills as she would a delicate bird or a rabbit, until someone advises her to put the money away in a safe place lest it be stolen.

This is the beginning for almost every Grameen borrower. All her life she has been told that she is no good, that she brings only misery to her family, and that they cannot afford to pay her dowry. Many times she hears her mother or her father tell her she should have been killed at birth, aborted, or starved. To her family she has been nothing but another mouth to feed, another dowry to pay. But today, for the first time in her life, an institution has trusted her with a great sum of money. She promises that she will never let down the institution or herself. She will struggle to make sure that every penny is paid back.

[. . .]

REVIEW AND DISCUSSION QUESTIONS

1 Where did Jobra's stool maker borrow the funds to run her small business? Why didn't she borrow from moneylenders?

2 What reasons did the manager of the government-owned Janata Bank give to explain why he was not interested in lending money to Jobra's craftspeople?

3 Why was Yunus opposed to the idea of having a well-to-do guarantor to back the loans?

4 According to Yunus, how has the Grameen Bank achieved an amazing 98 percent repayment rate for its loans? Why hasn't the absence of collateral resulted in more frequent defaults?

5 How is the repayment of Grameen Bank loans structured? What is the logic behind this structure?

6 Why must Grameen borrowers be part of a group of five borrowers to obtain a loan?

7 Do you see any limitations to the Grameen Bank "model"? Can institutions like the Grameen Bank make a significant contribution to economic development in poor countries? Why or why not?

Chapter 35

Daniel Pearl and Michael M. Phillips

SMALL CHANGE

Bank that pioneered loans for the poor hits repayment snag

MICROCREDIT IS A GREAT IDEA with a problem: the bank that made it famous.

Grameen Bank, launched in Bangladesh in 1976 by an economics professor named Muhammad Yunus, popularized the idea of giving poor people tiny loans to launch businesses. The bank has helped inspire an estimated 7,000 so-called microlenders with 25 million poor clients worldwide.

To many, Grameen proves that capitalism can work for the poor as well as the rich. It has become an icon for the drive to give needy entrepreneurs a share in economic development. And that iconic status owes a lot to an almost miraculous loan-repayment rate of "over 95 percent," as the bank's Web site says.

But Grameen's performance in recent years hasn't lived up to the bank's own hype. In two northern districts of Bangladesh that have been used to highlight Grameen's success, half the loan portfolio is overdue by at least a year, according to monthly figures supplied by Grameen. For the whole bank, 19 percent of loans are one year overdue. Grameen itself defines a loan as delinquent if it still isn't paid off two years after its due date. Under those terms, 10 percent of all the bank's loans are overdue, giving it a delinquency rate more than twice the often-cited level of less than 5 percent.

Some of Grameen's troubles stem from a 1998 flood, and others from the bank's own success. Imitators have brought more competition, making it harder for Grameen to control its borrowers. The bank's loan portfolio grew rapidly in the early 1990s, but it has now shrunk to 1996 levels, at $190 million. Profits have declined about 85 percent, to the equivalent of $189,950 last year from $1.3 million in 1999. The bank, with 1,170 branches, all in Bangladesh, has high operating costs. Grameen would be showing steep losses if the bank followed the accounting practices recommended by institutions that help finance microlenders through low-interest loans and private investments. And the situation may be worse than it appears; the bank is converting many overdue loans into new "flexible" loans that Grameen reports as up-to-date.

Microlenders have been reluctant to call attention to Grameen's troubles. "Grameen's repayment rates have never been as good as they've claimed," says Jonathan J. Morduch, associate professor of economics and public policy at New York University. "Because Grameen has been so well-known, nobody has wanted to risk undermining the reputation of the idea."

Microcredit is getting renewed attention as other poverty-fighting tools come under attack. Left-wing protesters accuse the World Bank of selling out the poor to corporate interests. Right-wing U.S. politicians argue that aid to the Third World has been wasted. U.S. lobbies often try to quash efforts to open American markets to imports from poor countries.

But microcredit is an idea everyone can agree on: It uses private enterprise, can be profitable and gets money straight to the poor. Bridging the gap between rich and poor "will help eliminate conditions of despair and hopelessness that breed violence and extremism," declares an electronic-mail message circulated after Sept. 11 by Bill Clapp, the chairman of Global Partnerships, a microcredit support organization based in Seattle.

The microcredit industry knows its reputation rides largely on Grameen's. Damian von Stauffenberg, chairman of a Washington-based microcredit rating agency called Microrate, was alarmed by recent rumors of financial weakness at Grameen, even though the agency doesn't rate the bank. "If it's true, it would be a blow to the rest of us, because of the symbol Grameen is," Mr. von Stauffenberg says. He says he repeatedly asked a Grameen affiliate, Grameen Foundation USA, this summer for detailed information on the bank's loan portfolio, but got only a brochure and a 1998 annual report.

"I didn't hear back from him after that, so I assumed he had the information he wanted," says Alex Counts, president of the foundation, which promotes Grameen in the U.S.

Mr. Yunus, a congenial man of 61, acknowledges that Grameen has had some repayment difficulties in the past five years. He blames political upheavals, the 1998 flood and management errors. Told that the Web site still claimed a 95 percent recovery rate, Mr. Yunus said it was through "inefficiency" that Grameen hadn't updated some information. Grameen has added a footnote to the Web site saying the information was true as of 1996. But more recent figures still aren't listed.

The repayment troubles are temporary, according to Mr. Yunus. "There is no problem," he said in an August interview in his modest office, which has no air conditioning despite Bangladesh's steamy climate. He says three-fourths of borrowers repay on time every week, and Grameen assumes that the poor will repay even long-delinquent loans. The bank, he says, is stronger than ever.

Mr. Yunus says borrowers have surprised him with their ability to take on new challenges. Borrowers who reach a certain level of savings can buy one share in Grameen, and collectively they own 93 percent. Mr. Yunus is setting up a mutual fund allowing borrowers to invest in other ventures under the Grameen umbrella: mobile phones, textiles and high-tech office space for rent on the top floors of the Grameen Bank tower.

"We have proved beyond a reasonable doubt that poor people are bankable," Mr. Yunus says. "We are not looking for charity."

Grameen, which means "village" in Bengali, got started after Mr. Yunus visited a village in southern Bangladesh. He met a woman who wove bamboo stools but had to sell them for meager profits to the man providing the materials. As an experiment, Mr. Yunus lent a total of $27 to 42 women in the village. All of them repaid.

When Mr. Yunus approached the Bangladesh government for funds in 1979 to expand his experiment, government bankers were skeptical that poor, landless women would repay. So Mr. Yunus conducted an experiment in Tangail, a fertile district north of Dhaka. His staffers showed up unannounced in villages and recruited groups of women to take loans. Again, all of them repaid.

The new bank was a kind of small-business lender, with some unusual policies. It took no deposits at first. It lent only to poor women who had no collateral. Borrowers formed groups of five, each member getting loans only as long as everybody made payments. Borrowers recited Mr. Yunus's "16 decisions" – including enforcing loan "discipline" within the group, keeping families small and not giving a dowry for a daughter's wedding – a difficult "decision" to follow in this culture.

Grameen, which has provided millions of poor Bangladeshi women with access to credit, became the industry's symbol mostly through Mr. Yunus's personality and proselytizing. He set up the Grameen Trust, which gives loans and holds workshops for start-up lenders who have adopted the Grameen model from Arkansas to Zimbabwe, with mixed results.

Mr. Yunus is also the guiding force behind the industry's main public-relations vehicle, the Microcredit Summit. At the first summit, in Washington in 1997, Mr. Yunus sat at the head table at a private lunch with Queen Sofia of Spain and World Bank President James D. Wolfensohn, who ended the meal by giving Mr. Yunus a big hug. At a regional summit last month, he gave an opening address beside Mexican President Vicente Fox. Friends tout Mr. Yunus for a Nobel Peace Prize.

Mr. Yunus's 1997 autobiography, "Banker to the Poor," gave no hint of doubt in Grameen's future. "All the strength of Grameen comes from its near-perfect recovery performance," he wrote. "It is not merely the money which is reflected through the recovery rate, it is the discipline."

Even then, however, Grameen's recovery rate was slipping. In 1997, 4.6 percent of Grameen's loans were more than two years overdue, up from 0.7 percent a couple of years earlier. And Tangail has now become Grameen's worst region, with 32.1 percent of loans two-years overdue as of August.

One reason is that microlending has lost its novelty. In Tangail, signboards for rival microlenders dot a landscape of gravel roads, jute fields and ponds with simple fishing nets. Shopkeepers playing cards in the village of Bagil Bazar can cite from memory the terms being offered by seven competing microlenders – a typical repayment plan for a 1,000-taka ($17) loan is 25 taka a week for 46 weeks. At an annualized rate, that works out to 30 percent in interest. Surveys have estimated that 23 percent to 40 percent of families borrowing from microlenders in Tangail borrow from more than one.

Borrowers have also become more rebellious. "The experience was good in the beginning," says Munjurani Sharkan, who became leader of a Grameen group in Tangail's Khatuajugnie village in 1986. To put pressure on "lazy" group members who were slow making payments, she says she used to start removing the tin roofs of their homes. But one day, the whole group decided to stop making payments.

They were protesting Grameen's handling of a fund it created for each group, using 5 percent of each loan and additional mandatory deposits. The "group fund" was meant for emergencies, but many borrowers wanted to withdraw money from the group fund. After a protest movement, complete with placards and amplified speeches, Grameen finally agreed to give borrowers easier access to the fund.

Borrower groups had become lobbying groups, and Mr. Yunus hadn't noticed the change, says Muhammad Yahiyeh, former director of Grameen Trust. "An entire group would say, 'Unless you pay this person 5,000 taka, we will all stop paying,'" says Mr. Yahiyeh, who now runs a small microlender. Mr. Yunus says he still thinks groups are good for loan discipline. Grameen just didn't explain the group fund properly, he says, and politicians stirred up the borrowers.

The typical Grameen success story features a woman who turns a small loan into a successful shop or craft business. But Grameen also has customers such as Belatun Begum, a borrower in Khatuajugnie since the late 1980s. She took one loan in three installments, totaling 30,000 taka (about $525). She says the original loan was to buy a cow, but she actually gave some money to her husband, a well-digger, and used the rest to improve her house. She confesses to borrowing a neighbor's cow to show Grameen at meetings. One recent study found one-fourth of microcredit loan money in Bangladesh is used for household consumption.

Mr. Yunus says that doesn't bother him as long as borrowers repay. Grameen tells women to think of a loan as a mango tree and to eat only the fruits, he says, not the tree itself.

But Grameen introduced so many loan options in the early 1990s – housing loans, student loans, seasonal loans – that borrowers were often paying off one with another, says Aminur Rahman, an anthropologist based in Ottawa, Canada, who studied Grameen borrowers in a Tangail village six years ago. Returning earlier this year, he found only six of 120 borrowers were getting income from Grameen-funded investments.

Massive floods in 1998 hit Grameen's borrowers hard. The bank let borrowers skip several payments. Grameen borrowed $80 million from Bangladesh's government banks, with a sovereign guarantee, and used the money to make new loans to borrowers. Informally, it forgave the old loans.

Grameen also bailed out borrowers whose problems had nothing to do with the flood. Ms. Begum, for instance, stopped paying when she had to provide dowries for two daughters. She skipped group meetings, but Grameen workers came to her door asking for her 200-taka weekly payment, she says. "Let us make some income and we'll pay you," she told them.

Earlier this year, Grameen came up with a proposal: pay just 50 taka a week for six months, and then take a new Grameen loan for twice the amount she repaid. Ms. Begum accepted. Grameen calls the program a "flexible loan," and treats the old, delinquent loans as back on schedule, as long as some regular payment is being made.

At a Grameen branch near Khatuajugnie, manager Mohammed Imam Modem shows his computer-printed ledger, full of cross marks to indicate missed payments. The rescheduling program and Grameen's personal visits to husbands as well as wives are improving the picture: The branch had 1,510 defaulters before; now it has 846. Attendance at weekly meetings is up to 66 percent, from 47 percent before.

"Grameen Bank's philosophy is not to abandon but to rehabilitate," says Muzzamal Huq, a Grameen general manager.

But Grameen may simply be delaying inevitable defaults and hiding problem loans. One paper produced by the Consultative Group to Assist the Poorest, or CGAP, a donor group that sets industry standards, warns that heavy use of refinancing "can cloud the ability to judge its loan-loss rate." CGAP is a collective of 27 public and private donors, including the World Bank, the U.S. Agency for International Development and several

U.N. agencies, that account for the vast majority of aid to microcredit institutions around the world.

CGAP says refinanced loans should at least be listed separately. Grameen doesn't do so. It says refinanced loans are one-fifth of its portfolio.

CGAP recommends that microlenders report as at risk the entire remaining balance of any loan with a payment more than 90 days overdue. The Palli Karma-Sahayak Foundation (PKSF), which Mr. Yunus helped set up in 1991 to distribute foreign funds to other Bangladesh microlenders, requires its microlenders to report as overdue any loan that is one week late. The average overdue rate among the foundation's lenders is 2 percent. It's impossible to know Grameen's overdue rate by that standard, since it reports only loans that are one year and two years overdue.

PKSF also says it requires borrowers to make a 50 percent provision against potential loan losses for any loan overdue by a year. Grameen made a 15 percent provision for such loans in 1999, and none last year. Following PKSF guidelines would have produced a loss of more than $7.5 million for 2000 instead of Grameen's reported profit of less than $200,000.

In early 1998, Grameen approached the International Finance Corp., the business-finance arm of the World Bank, about turning some of Grameen's portfolio into securities. The IFC declined to proceed, in part because Grameen "didn't provide all the account information the IFC requested," an IFC official said. The official requested anonymity because the IFC is reticent about discussing its negotiations with clients.

Mr. Yunus denied the IFC official's claims. He said Grameen is "generously covered" against loan defaults.

Other microlenders have become much more stringent. Accion International, a U.S.-based network of microfinance institutions, requires its affiliates in Africa and Latin America to list as "at risk" any loan overdue by 30 days or more. Asked about Grameen's two-years standard, Accion Chief Executive Maria Otero says, "I don't think any [bank] superintendency in a million years would agree to something like that."

Grameen Bank isn't under any formal supervision. "They are regulated, but they are regulated by themselves," says Akhtaruz Zaman, director of the Financial Institution Department for the Bangladesh Bank, the country's central bank. He means the board of directors, which is led by borrowers. Mr. Zaman says Grameen's deposits are "well-protected" and the bank is "doing fine."

Harder-headed microlenders are stealing the spotlight, though. One rising star is the Association for Social Advancement (ASA), a Bangladesh charity, which boasts 1.5 million borrowers and just 0.7 percent of loans overdue, even by a week. Dispensing with borrower groups, ASA leans on borrowers' husbands and relatives if payments are missed, says the managing director, Shafiqual Haque Choudhury. To him, Grameen's approach is an ingenious idea that didn't stand the test of time.

"If we manage our operation in the Grameen way," says Mr. Choudhury, "we'll never be able to cover our costs."

REVIEW AND DISCUSSION QUESTIONS

1 According to Pearl and Phillips, what are the major problems that the Grameen Bank has run into?

2 Why does Grameen founder Muhammad Yunus feel that these problems are just temporary?

3 According to the authors, what possible weaknesses does the microcredit system exhibit?

4 What are some of the differences between how Grameen operates and how other microcredit lenders do?

5 If you were in charge of a microcredit organization, would you organize it along the Grameen model or use a different approach? Why? Explain.

Chapter 36

THE ECONOMIST

THE HIDDEN WEALTH OF THE POOR

Financial services are at last spreading from the rich to the developing world – and even making money [. . .]

IN RICH COUNTRIES, FINANCIAL services on the whole work remarkably well, despite the exotic salaries, the crackpot deals and the occasional bust. The vast majority of people have access to interest-bearing savings accounts, mortgages at reasonable rates, abundant consumer credit, insurance at premiums that reflect the risk of losses, cheap ways of transferring money, and innumerable sources of capital for funding a business.

By contrast, financial services for poor people in developing countries – a business known as "microfinance" – have mostly been awful or absent. With no safe place to store whatever money they have, the poor bury it, or buy livestock that may die, or invest in jewellery that may be stolen and can be hard to sell. Basic life and property insurance is rarely available. Home loans are costly, if indeed they can be found at all. For many people, the only source of credit is a pawnshop or a moneylender who may charge staggeringly high interest and beat up clients who fail to pay on time. In the Philippines, lenders who zip from town to town on motorcycles expect six pesos back for every five they lend. That translates into an annual interest rate of over 1,000 percent on a loan for a month.

For workers from poor countries who venture abroad to earn a better living, sending money home to relatives can be hugely expensive. Such remittances have become an important source of income in many developing countries, dwarfing other inflows of capital from overseas such as foreign direct investment and multilateral aid. But if the money is being sent, say, from America to Venezuela, charges can amount to as much as 34 percent of the sum involved, according to Dilip Ratha of the World Bank.

Why are the poor so badly served? The easy answer, that people who have little money do not make suitable clients for sophisticated financial services, is at most a half-truth. A better explanation, this survey will argue, is that the poor have been hurt by massive market and regulatory failure. Fortunately that failure can be, and increasingly is being, remedied.

In most developing countries, the barriers to providing financial services for the masses are all too clear. Inflation tends to be high and volatile; government is often incompetent; and the necessary legal framework for financial services is often missing. Property laws can make it impossible for poor borrowers to use assets such as their home as collateral for loans.

In the past, many countries have outlawed "usury", and today many Islamic countries prohibit the charging of interest. Governments in developing countries often impose caps on the interest rates charged on loans for the poor. Despite their popular appeal, such caps undermine the profitability of lending and thus reduce the supply of loans.

Incomplete and erratic regulation of financial institutions has also undermined the confidence of the poor in the financial services that are available. When they can find an institution that will accept their tiny deposits, it often lacks the sort of government deposit insurance that is routine in rich countries, so when a bank goes under, savers suffer. For example, Indonesia's PT Bank Dagang Bali, once known for its work with poor clients, was closed by regulators last year after it was discovered to be insolvent and riddled with fraud. Many savers did not get their money back.

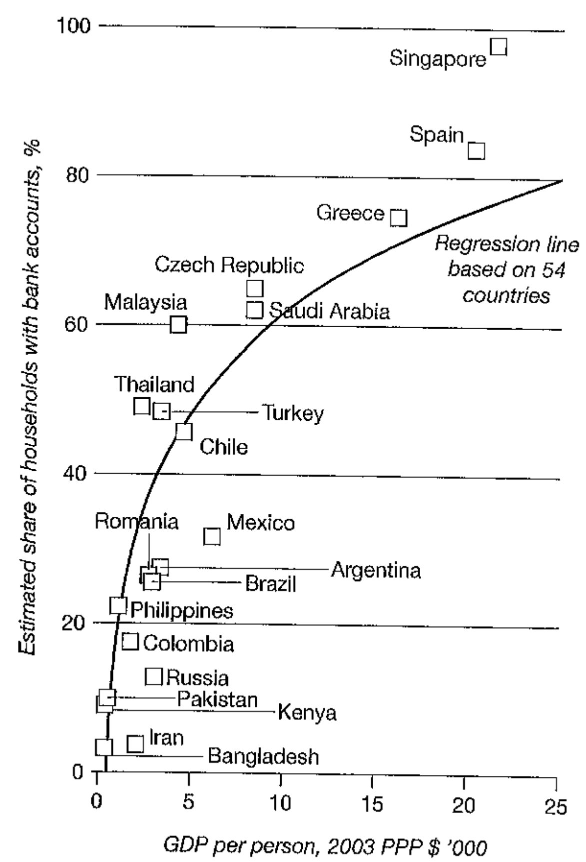
Corruption is also commonplace in many developing countries. A recent study by the World Bank found that in two poor states in India where the financial system is largely controlled by the government, borrowers paid bribes to officials amounting to between 8 percent and 42 percent of the value of their loans. Corruption raises the cost of every financial transaction, allows undesirable transactions to take place and undermines consumer confidence in the financial system. This, and the related curse of cronyism, explains why access to financial services in countries where the state has control over the financial sector is poorer than where it does not.

Inadequate basic public services add to the burden on financial firms. SKS, a fast-growing microfinance institution in India, has had to build back-office systems that can work on two hours of power a day; it closely monitors voltage when its computers are running and keeps a diesel generator on hand. Many others simply give up on the idea of modern technology and continue to use paper instead. This makes them vulnerable. The tsunami in December 2004 wiped out financial records at many small Indonesian banks.

But not all the blame goes to poor-country governments. Financial-services firms too have failed to do enough to deal with the lack of the sort of data (for example, about a client's financial history) that are taken for granted in rich-country financial systems, and to find ways of reaping economies of scale. Many have simply dismissed the possibility that serving the poor might be a viable business.

The start of something big

In recent years, at least in some parts of the world, this bleak picture has begun to change, first in credit, then in savings and more recently in remittances. Even insurance – not only the basic life sort but also more sophisticated forms for things like cattle and weather risk – is gradually being introduced.



prevalence of bank accounts at different income levels

Figure 36.1 You don't have to be rich, but it helps:

Source: World Bank

These changes have recently received a lot of attention in policymaking circles. Grand claims have been made that credit can end poverty. A World Bank report by Thorsten Beck, Asli Demirguc-Kunt and Soledad Martinez published last month shows a strong correlation between lack of financial access and low incomes (see Figure 36.1). Earlier research by the first two authors and Ross Levine concluded that a sound financial system boosts economic growth and particularly benefits people at the bottom end of the income league. A long-term study in Thailand by Robert Townsend of the University of Chicago and Joe Kaboski of Ohio State University showed that families with access to credit invested more, consumed more and saved less than those without such access.

What makes microfinance such an appealing idea is that it offers "hope to many poor people of improving their own situations through their own efforts," says Stanley Fischer, former chief economist of the World Bank and now governor of the Bank of Israel. That marks it out from other anti-poverty policies, such as international aid and debt forgiveness, which are essentially top-down rather than bottom-up and have a decidedly mixed record.

Studies by Stuart Rutherford, who runs an experimental bank that provides loans and takes deposits in the slums of Bangladesh, show that the poor attach great value to having a safe place to keep money and some means of providing for life's risks, either through savings or, better still, through insurance. When financial services are available to them, the poor, just like the rich, snap them up.

In one sense, microfinance has been around for a long time. What is now generating so much hope and excitement is less the discovery of some entirely new way to deliver financial services to the poor than the effect of the rapid innovation that has taken place in the past three decades.

From pawnshop to Citigroup

The oldest financial institution in the Americas is a pawnshop on Mexico City's central square. Set up in 1775 under an edict by the Spanish crown to assist people in financial trouble, it is called Monte de Piedad, variously translated as the mountain of mercy or the mountain of pity. Pity or mercy come in the form of cash in return for valuables. Unclaimed items end up for sale in a series of glittering rooms near the main banking hall.

By transforming trinkets into capital, pawnshops perform an important (if under-appreciated) service, but they have three limitations. They advance cash only to people with assets. Their loans are based on the value of collateral, not of a business venture. And the valuables held as collateral cannot be used to fund businesses, as banks' cash deposits can.

There have been two notable attempts to find alternatives. One has been the creation by developing-country governments of state banks, particularly to finance the rural poor. These have mostly been a disaster. The other, much more successful one involved a number of organisations extending uncollateralised loans to very poor borrowers. In 1971, Opportunity International, a not-for-profit organisation with Christian roots, began lending in Colombia. ACCION International, also not-for-profit, made the first of what it called "micro" loans in 1973. Grameen Bank started in 1976 and soon became extraordinarily famous for offering "microcredit" to women in small groups.

To qualify, Grameen's customers had to be extremely poor, probably earning less than a dollar a day. To overcome the lack of collateral or data about creditworthiness, group members were required to monitor each other at weekly meetings, applying varying degrees of pressure to ensure repayment. As loans were repaid, people were allowed to borrow more. The group replaced the security that pawnshops gained from collateral. The model is not perfect, but it does have real virtues and has since spread around the world.

Why did these organisations start with providing credit? They assumed that poor people were unable to save, and that their sole need was for capital. But that was not the whole story. When BRI, a failing state-controlled rural lender in Indonesia, was transformed into a bank for the poor in 1984, it offered not only the usual loan products but also a government-guaranteed savings account with no minimum deposit. This has been an extraordinary success: BRI now has 30m savings accounts.

Nobody knows how many institutions are providing microfinance in some form, but the number is certainly huge. They are growing fast and serving a vast number of people in absolute terms, although still only a small proportion of the billions who earn only a few cents a day. Local banking giants that used to ignore the poor, such as Ecuador's Bank Pichincha and India's ICICI, are now entering the market. Even more strikingly, some of the world's biggest and wealthiest banks, including Citigroup, Deutsche Bank, Commerzbank, HSBC, ING and ABN Amro, are dipping their toes into the water.

The downsides

Not everyone has been pleased with the prospect of better financial services for the poor. Islamic fundamentalists have bombed branches of Grameen in Bangladesh and attacked loan officers of other institutions in India. Maoists have looted microfinance offices in Nepal. The head of a microfinance effort in Afghanistan was murdered, possibly by drug traders.

To drug lords in Afghanistan, the availability of credit is unwelcome because it gives a choice to farmers who were previously forced to grow poppies for want of other ways to finance their crops. For the elites in closed markets running inefficient monopolies, credit raises the prospect of future challenges from entrepreneurs. For radical Muslims, it means that women (who in many countries make up the bulk of microfinance borrowers) are able to run viable businesses and become independent. And for everyone in poor countries, credit can mean social upheaval as merit and enterprise replace inheritance, family ties and position.

Nor does microlending always have a happy outcome. The clients of K-Rep, an excellent Kenyan microfinance bank in a small town on the fringes of Nairobi, are a pretty resourceful lot, but when the government stopped repairing roads, picking up rubbish and spraying for malaria, some were at their wits' end. Drainage in the marketplace was plugged by uncollected garbage and customers stopped coming. Maria Njambi, a single mother with a ten-year-old child, used to have a viable business selling fruit and vegetables she bought with credit from K-Rep, but she had to watch her inventory rot and has stopped repaying her loan. She is not alone in her misfortune. A report in 2002 by CARD, a microfinance organisation in the Philippines, offers the following explanation for borrower attrition: "It is a tragic fact that over time, husbands will fall sick, *sari-sari* [variety] stores will be robbed, harvests will be poor and children will die."

Yet microfinance institutions typically claim extraordinarily low loan losses of 1–3 percent, a bit better than the rate for big banks in rich countries and much better than for the big credit-card companies. Given the difficulties facing businesses in poor areas, some critics question the accuracy of these figures. Many of the banks lending to the poor are not-for-profit organisations whose accounts are rarely scrutinised by outsiders. Much of their capital has been provided by governments or philanthropists, and often does not have to be repaid, so perhaps microfinance institutions are being quietly lenient with their customers. Indeed, large-scale defaults in microfinance may go unreported. The Townsend-Kaboski research project in Thailand informally tracked hundreds of microfinance institutions and found that in the five years before the Asian financial crises, 10 percent failed and a quarter stopped lending.

So there is room for scepticism, but also plenty of reason for hope. The biggest of these is just how much progress the industry has made in the past 30 years.

REVIEW AND DISCUSSION QUESTIONS

1 Explain why, according to the author, the poor in developing countries have such limited access to financial services.
2 Why does the author doubt the wisdom of interest rate ceilings, or laws that cap the interest rate that can be charged on loans? Don't these ceilings prevent lenders from exploiting borrowers and, therefore, protect the poor? Explain.
3 According to the author, what are some of the obstacles that limit the potential of microfinance to help the poor?
4 What kind of government policies would you recommend to help make financial services more accessible to the poor? Explain.