that promote entrepreneurship and Red-Queen-style competitions. Indeed, we believe that state-guided economies eventually must find ways of transitioning toward a blend of big-firm and entrepreneurial capitalism for a simple reason: at some point, the opportunities for imitation, the predicate for state guidance, will have been exhausted. At some point, economies must innovate rather than simply replicate. That is when state guidance will have run its course.

6

UNLEASHING ENTREPRENEURSHIP IN LESS DEVELOPED ECONOMIES

Readers of this book surely have seen the horrifying depictions of famine and disease in Africa on television and very likely are aware that despite the amazing record of economic growth in much of the world, more than two billion individuals spread across the world still live on the equivalent of less than $2 per day. The striking failure of governments in these countries, as well as of international agencies that have tried to help them, to remedy this should haunt us all and caution those, like us, who seek ways to do better.

Nevertheless, suppose you are called in to advise the leaders of a developing country who aspire for it to grow. What can you tell them with any degree of conviction? In essence, the purpose of this chapter is to offer answers to that question, but with an appropriate degree of humility. We take our cue largely from the nations that have *not* failed to grow and, perhaps incidentally, whose success in at least some cases was achieved without planning, with little or no central direction, and via the happenstances of history, working through the powerful incentives emanating from the impersonal workings of the marketplace. Although the lessons from these experiences admittedly are not entirely clear and unambiguous, they do appear at least to tell us that one indispensable ingredient of success was entrepreneurship and an environment that encouraged its activities, offered it security and incentives, and minimized the obstacles to its exercise. This chapter, in short, focuses on steps that offer hope of transforming economies in which the arrangements and the rules of the game impede or

even preclude the work of the productive entrepreneurs toward new regimes where these elements have been reversed.

In setting out our argument, our central focus, unlike other prescriptive books on the general subject of growth, makes no attempt to lay out a comprehensive set of steps that should be undertaken by an informed and responsible government that is hunting for ways to accelerate economic progress. Rather, much of the discussion will be about broad approaches to attaining a regime that can be relied upon to move matters in the required direction. We pay particular attention to how economies whose course is determined by government ministries or powerful oligarchies can transition toward new regimes in which economic developments are driven primarily by market forces and the activities of productive entrepreneurs.

We preview our argument here before delving into the details. First, regardless of the state of their economic development, all less developed countries can benefit by promoting entrepreneurship, of both kinds we have so far outlined: *replicative,* in the sense that technology should be borrowed from abroad, typically by accepting foreign direct investment; and *innovative,* through so-called bottom-of-the-pyramid product and service innovations adapted to the unique circumstances of individual developing economies (and for countries at later stages of development, through adaptation of cutting-edge products and services currently designed for rich country markets, firms, and consumers).

Second, it is unrealistic to expect the more successful state-guided developing economies, including the former developing countries that used state guidance to approach living standards of the industrialized world, suddenly to embrace all the principles of entrepreneurial capitalism outlined in the last chapter. Nonetheless, there are opportunities for these economies to introduce these policies *at the margin,* or *incrementally,* in fashions we discuss here.

Third, growth is most difficult to accomplish in oligarchic economies, some of which are very poor and others that are richer on average, but where incomes are highly unevenly distributed, as discussed in chapter 4. The simple reason is that for countries to grow, it is essential for their leaders to want that result and to be prepared to work for it. Since, by our definition (and most likely theirs too), oligarchs do not give the highest priority to economic growth, there are realistically only two broad options available for such countries: revolution from within or outside pressure from other countries to induce constructive change, which is tantamount to encouraging revolution. As it turns out, recent decades have provided several examples of peaceful, even quasi-democratic, revolutions. Some have resulted in economies that have entrepreneurial characteristics; others have moved their countries toward some variation of state guidance. Ironically, the more recent "populist" revolutions in Latin America, in particular, have their seeds in opposition to the United States, both its foreign and economic policies. We do not view these developments as unequivocally undesirable, however, since it may be necessary for countries that were once oligarchic to adopt some form of state guidance as a way station toward more entrepreneurial forms of capitalism. It is still too early to judge.

Fourth, though there are good theoretical reasons why foreign aid may be able to raise growth rates, especially among the poorest nations of the world where starvation and disease are regrettably all too common, in practice, the evidence for this proposition is decidedly mixed. If, and this is a big if, foreign aid for public goods—such as health systems, sanitation, roads, and communication infrastructure—can, in fact, be delivered in a way that promotes these ends, then it has a constructive role to play. But even then, aid must be viewed only as a short-term development strategy. Eventually, developing countries, even the poorest ones, must find ways to *grow on their own.* This will require the kinds of institutions outlined in the last chapter; the more quickly these are developed, the more rapid will be the alleviation of human suffering that prompts the well-intentioned call for more foreign aid to jump-start growth.

Finally, the growth of so-called micro-credit financial institutions throughout the developing world (and even in some parts of the developed world) in recent decades is a significant phenomenon whose importance cannot be ignored and that illustrates the sort of measure that can be sought as an effective means to facilitate the development process. Micro-credit has enhanced the formation of many small businesses, especially those owned by women, that otherwise would not have been formed. But as should be clear to readers from our previous chapters, these small businesses overwhelmingly are more replicative than innovative. Nations that spawn thou-

sands, if not millions, of such small businesses may find this to be a useful strategy for alleviating poverty and, indeed, for jump-starting the growth process. But businesses backed by micro-credit are unlikely to be major engines of sustained economic growth, especially if the micro-lenders themselves continue to be subsidized primarily by funds from governments or nonprofit organizations. Micro-businesses launched by micro-loans, by definition, are too small to realize the economies of scale that only larger enterprises, whether home-grown or foreign, can achieve. The ultimate challenge for developing countries is to encourage larger, more established financial institutions to lend to enterprises that have a chance of growing to be larger firms—in other words, to move beyond the "micro" stages of lending and business formation.

Before outlining the logic that lies behind each of these broad conclusions, it is instructive to begin by defining terms: what is meant by a "developing country"? We explain next why a steadily stronger dose of entrepreneurship is necessary if developing countries are to achieve sustained economic growth and maximize the rate at which they close the gap in living standards with richer countries. We then examine a number of different models that developing countries can pursue. We close this chapter with some thoughts on how foreign aid and the new apparent silver bullet in development circles, micro-credit, can and cannot contribute to the catch-up process.

What Is a Developing Country?

The notion that some countries are "developed" and others are not has been with us for some time, at least since the end of World War II, after which many nations formed a specialized entity—the World Bank—with the specific mission of furthering the economic development of most of the countries in the latter category. Over the years, various words (at least in English) have been used to describe countries where average living standards of the population are far below those of rich countries like the United States. The terms include "developing" or "less developed," or simply "low income" or "poor."

Over the past sixty years, much has changed. Many of the countries that were once "poor" or "developing" are no longer so, having climbed the

"ladder of economic development." Familiar examples, of course, are those in Southeast Asia, especially Japan, which was economically prostrate after the war. Indeed, so was Western Europe, which today boasts living standards close to those of the United States, where the median family income as of 2005 was roughly $45,000. In addition, economists today now speak of a host of "middle-income" or "emerging market" countries—those with per capita incomes typically in the $4,000 to $15,000 range. Examples include many of the "transition economies" in Eastern Europe, Turkey, and Chile. Some analysts group both middle- and low-income countries together as "developing countries" (World Bank, 1993), while others preserve the distinction between the categories, and indeed pay special heed to the poorest of the low-income countries, those where average purchasing power is less than $2 per day (Sachs, 2005).

Whatever the term, the typical metric used to evaluate where countries stand on the ladder of economic development is per capita income. To take account of different currencies, the income measures are typically converted to their dollar equivalents, using either market exchange rates or market rates adjusted for differences in purchasing power within countries (so-called purchasing power parity, or PPP, exchange rates). Table 10 provides an illustrative list reporting where a sample of different countries can be found on the economic development ladder, as of 2003, based on PPP exchange rates.

While we recognize that per capita income levels are significant measures of economic progress, they are not the only ones. For one thing, they do not account for factors that affect life but are not traded in markets—such as the quality of the environment, the stability of families, personal safety, or health. In addition, per capita measures, by definition, are averages. They do not reveal anything about how evenly or unevenly incomes or wealth are distributed among populations.

Of most importance to us here, however, are the paths by which countries that are not at the economic frontier can most rapidly catch up to those that are. In this chapter, we will focus on the countries that are furthest behind—those that are "developing" or "less developed." This category includes both those in extreme poverty—many of the countries in Africa, for example—as well as such rapidly growing economies as China and India, where hundreds of millions of residents still live in extreme

Table 10 Per Capita National Incomes (Purchasing Power Adjusted, 2003 Dollars)

Country	*Per capita $US 2003*
High	
Australia	28,780
Belgium	28,920
Canada	30,040
Finland	27,460
France	27,640
Germany	27,610
Japan	28,450
Switzerland	32,220
United Kingdom	27,690
United States	37,750
Near high	
Greece	19,900
Israel	19,440
Korea, Rep	18,000
Kuwait	19,480
New Zealand	21,350
Portugal	17,710
Slovenia	19,100
Middle	
China	4,980
Costa Rica	9,140
Gabon	5,500
Mexico	8,980
Peru	5,080
Philippines	4,640
Poland	11,210
Russian Federation	8,950
Saudi Arabia	13,230
Thailand	7,450
Argentina	11,410
Low	
Bangladesh	1,870
Cambodia	2,000
Cameroon	1,990
India	2,880

Source: World Bank, *2005 World Development Indicators* (Washington, D.C.: International Bank for Reconstruction and Development/ World Bank, 2005).

poverty. We will also draw lessons from some countries that were once in this category but have since grown to middle-income status or higher.

The Many Paths to Economic Development (or Lack Thereof)

Americans or many Europeans who might have read our book (had it been written) in the eighteenth or nineteenth centuries probably would have had difficulty understanding our typology of capitalisms, though they probably would have understood what we mean by "entrepreneurship" (or at least the terms "adventurer" or "undertaker," which were the corresponding terms then in use). Most economic activity was agricultural, and those who tilled the land typically owned it (save for the slaves in America and serfs on the other side of the ocean) and thus were classic replicative entrepreneurs. So too were the owners of the retail shops and manufacturing firms located in the heart of urban areas. There were few big firms of the kind that are so prominent in the economic landscape today. And although governments handed out licenses or charters, they did not "guide" their economies in the sense in which we have used the term—by favoring specific industries and firms over others, explicitly for the purpose of advancing growth.

In short, in America and through much of Europe up to the twentieth century, entrepreneurial capitalism was the order of the day—not because of any government design, but rather, more or less, by accident. Entrepreneurial capitalism emerged from scratch, as it were, since neither what we have labeled "state-guided" nor "big-firm" capitalism had yet emerged. (Although some countries that recognized property rights also had high concentrations of wealth and were governed by an elite, and thus their economies could have been characterized as early examples of oligarchic capitalism.) Other examples of countries that are rich or near rich today, which one could say also started as entrepreneurial, include Canada and Australia, not coincidentally both offshoots of Great Britain (like the United States). But like the United States and Western Europe, both of these countries were at or close to the economic frontier before the Depression and, later, after World War II.

Perhaps most important for our purposes is that in all of the rich coun-

try models where entrepreneurship flowered from scratch, the formation of the requisite institutions—enforceable contract and property rights to ensure that entrepreneurs would keep the fruits of their risk-taking, legal and other institutions to curtail corruption, and the development of human and physical infrastructure (education and public roads, in particular)—evolved gradually and incrementally. There wasn't some "big bang" event that instituted all of these preconditions at the same time. Nor did the technologies and methods of production that the entrepreneurs developed suddenly emerge all at once. Instead, like Isaac Newton's observation that scientists in each generation stand on the shoulders of giants, the technological frontier moved out incrementally, at different rates in different years, but cumulatively at such a pace to enable living standards to double about every twenty-five or thirty years.

Things changed radically after World War II, a war that had horrific human consequences and also devastated much of the world, except for the United States. After the war, the world divided ideologically between those countries that were on one side of the "iron curtain," and whose economies practiced some form of capitalism, and those on the other side, where economies were centrally planned. Coincidentally, some but not all of the capitalist economies were also democracies (others were authoritarian and only later developed democratic forms of government), while the centrally planned economies all were authoritarian and dominated by a single communist party. Readers, of course, know that, throughout much of the postwar era, the leaders of these two camps, the United States and the Soviet Union, competed for allies, hoping to persuade countries that had not already committed to one form of government and economic system to adopt its model. Readers also will know that capitalism and democracy ultimately, largely won. (We say "largely" because today there are not only two holdout communist countries, Cuba and North Korea, but a number of countries in the Middle East that remain authoritarian, though capitalist in some form, as well as other "failed states" that effectively have no government and where the economic order is, at best, "precapitalist.")

Our interest here, however, is in the various forms of capitalism that seem to have been adopted in the postwar period by countries that did not follow or were not forced to follow the central planning model of the Soviet Union and China. Roughly speaking, they fall into the four broad categories we outlined in chapter 4:

- Countries that chose some form of state guidance, principally the Asian "Tigers" and India;
- Countries that have exhibited some form of oligarchic capitalism, or much of Africa, Latin America, and the Middle East;
- The rare countries, like Taiwan, that encouraged entrepreneurial capitalism and largely (like the United States) eschewed state guidance, except to promote broadly the development of industries or sectors that offered opportunities for exports;
- The Western European and Japanese economies, which initially embraced entrepreneurship and welcomed foreign investment after the war but eventually tolerated and even nurtured the growth and later dominance of large firms.

In addition, after the Berlin Wall fell, the centrally planned economies of Eastern Europe, the former Soviet Union, and China moved at different speeds toward different types of capitalism. All seem to be works in progress, with different combinations of state guidance (principally state ownership of banks), large firms favored by the state (or subunits of the central state government, such as provincial or local governments), foreign multinationals, and domestic entrepreneurs.

The Misplaced Lure of State Guidance

Looking across all these models, it is tempting to conclude—based largely on the superior growth records of the Asian Tigers but also, more recently, on the remarkable growth record of China—that developing countries that want growth (oligarchs are an important exception to this, as we will discuss soon) should embrace some form of state guidance if they too want to catch up rapidly to the rich-country frontier. Indeed, the very presence of richer countries seems to invite some form of state guidance by poor countries, which seemingly need only to replicate the promising targets provided by those richer economies: activities or industries that are labor-intensive and thus susceptible to competition from firms in locales with access to workers who accept much lower wages but

are easily trained and strongly motivated, provided the domestic firms can gain foreign technologies and the necessary capital equipment. Guidance by the state also is attractive to ruling elites and government bureaucrats not only because their power is elevated when they seem to be or actually are "running" the local economy, but also because permission to launch and conduct business, when required by the state, opens up opportunities for bribes, providing an additional source of income for them. But before leaders of developing countries embrace state guidance as a silver bullet to the growth challenge, we urge them to consider several caveats.

First, the evidence does not support the view that detailed economic guidance by the state—that is, directing aid or providing appropriate approvals to some sectors and firms and not others—adds to growth, above and beyond what can and has been generated by high domestic savings and generally sound government policies that support growth (such as the provision of universal education, prudent macroeconomic policies, and protection of rights of property and contract) without attempting to "pick winners." In fact, in one of the World Bank's more widely known studies of this subject, this is just what a team of its economists concluded in seeking to explain the remarkable growth through 1993 of the countries in East Asia, including the so-called Four Tigers (Hong Kong, South Korea, Singapore, and Taiwan), China, and the three "newly industrializing countries" (NICs) of Southeast Asia (Indonesia, Malaysia, and Thailand). As the report stated: "Private domestic investment and rapidly growing human capital were the principal engines of growth (in these countries). . . . In this sense, there is little that is 'miraculous' about the [East Asian] countries' superior record of growth." But as the report acknowledged, these fundamental policies "do not tell the entire story." The report emphasized the importance of institutions—strong property and contract rights—but was skeptical that targeted state interventions appreciably increased growth, despite widespread belief to the contrary. It concluded: "Some important government interventions in East Asia, such as Korea's promotion of chemicals and heavy industries, have had little apparent impact on industrial structure. In other instances, such as Singapore's effort to squeeze out labor-intensive industries by boosting wages, policies have clearly backfired. . . . *On the basis of an exhaustive review of the experience of developing economies during the last thirty years, [a previous World Bank report, in 1991] concludes that attempts to guide resource allocation with nonmarket mechanisms have generally failed to improve economic performance*" (emphasis added) (World Bank, 1993, 5, 9–10).

Second, since the World Bank's landmark study, the growth experience of India, in particular, provides strong evidence that state guidance can be more of a hindrance than a stimulant to growth and that random or accidental events—so often characteristic of entrepreneurial success stories—can fuel the expansion of a world-class entrepreneurial sector and, in turn, advance growth of the entire economy. Partially as a legacy of British colonial rule and partly as an outgrowth of the economic philosophy of its first leader, Jawaharlal Nehru, India's economy for several decades after independence was a model of detailed, intrusive guidance by the state. For almost every type of economic activity—not just opening a business, but buying and installing a rudimentary piece of equipment—some sort of government approval was required. Information technology (IT) related fields, such as software coding and development and later international call-center operations, were an accidental exception to this pattern, and in retrospect many Indians surely must be thankful that they were.

But India's rise to IT prominence could not have occurred without a series of deliberate decisions and "accidental" events whose ultimate consequences, in each case and especially in combination, would have been difficult if not impossible to have predicted at the time. For example, in the 1950s and 1960s India's leaders wanted to produce more home-grown scientific and engineering talent, and they did so by establishing and supporting what eventually became some of the world's finest schools of engineering, now turning out tens of thousands of highly trained Indian engineers a year. But it is doubtful that the policy makers who created these schools could have foreseen where they would eventually lead: the creation of entrepreneurial enterprises in the computer software, data-processing, and call-center businesses (such as Infosys and Wipro) that rank with the best of the world. Perhaps just as impressive are the large numbers of Indian expatriates who have gone on to found many high-tech companies in the United States. One indication: whereas Indians ran 3 percent of Silicon Valley start-ups in the 1980–84 period, they were running 10 percent of those launched between 1995 and 2000 and probably an even higher share since. Several Indian expatriates have become leaders of the

Silicon Valley venture capital industry, and in recent years they have been active in helping to launch similar enterprises in their home country. Although critics note that the Indian IT sector—and the cities associated with its growth, Bangalore, Hyberadad, Mumbai, and New Delhi, to name a few—accounts for a small fraction of the country's GDP and employment, India's Ministry of Finance projects that the value added by the IT sector will account for as much as 25 percent of India's economic output by 2020 (Srinivisan, 2005).

Other factors, even more accidental in nature, have contributed to the "Indian miracle." Perhaps most important has been the rise of the Internet, a development whose ramifications have yet to be fully realized and appreciated and whose consequences were not recognized, as late as the mid-1990s, even by Microsoft cofounder Bill Gates. Yet except for call-center operations, virtually nothing in India's IT sector would have been possible without the instant communications capability afforded by the Internet. Another factor is that for the most part, the Internet's common language has been English (although this is gradually changing and will continue to change in the future). Indians speak, write, and communicate in English and so were well positioned to take advantage of the opportunities afforded by the Internet when they arrived.[1]

To be sure, India's apparent success is not without its skeptics. Domestically there are complaints that now that the IT sector has grown so rapidly, the Indian government should pay more attention to the growth of the rest of the economy, manufacturing and agriculture in particular. Indeed, it is far from clear whether India would have done better had it followed the Southeast Asian model with respect to education—ensuring universal primary education rather than concentrating on a relatively small elite, focused around IT. Whatever one may believe the answer to be, there is little doubt that extending primary education throughout the country, along with building infrastructure, will be India's main economic and social challenge going forward.

Taiwan's postwar success also illustrates how a broader trust in entrepreneurship paved the way for that country's remarkable growth record after the Chinese civil war of the late 1940s. Taiwanese leaders recognized the need for growth but did not attempt to pick specific industries or firms to promote. Instead, they took the view that the best way for the government to assist growth would be to promote the growth of firms in *export industries,* through financing, tax incentives, and an exchange rate policy (carried out by central bank purchases of the U.S. dollar) that has kept the Taiwanese dollar undervalued relative to foreign currencies. The government also made it relatively easy for new firms to start and grow, and it subsidized the education of its talented students to study abroad, principally in the United States, where they could pick up the know-how to help run entrepreneurial ventures upon their return home. With a cheap currency, and a policy environment conducive to the formation and growth of new ventures, largely component manufacturers supplying foreign multinationals, Taiwan has become a vibrant hub of manufacturing and innovation. Indeed, over time, some of these manufacturers have moved up the development ladder to design and produce entire products themselves, marketing them elsewhere under global brands. Eventually some of these companies probably will become global brands themselves and no longer will need direct connections with foreign multinationals.

Meanwhile, the country's central bank has used the export revenues generated by successful Taiwanese companies to buy U.S. dollar debt, keep the value of the Taiwanese currency low, and thus facilitate the virtuous circle of export-led growth. By 2005, Taiwan's central bank held nearly $300 billion in foreign currency reserves (invested largely in U.S. securities). The country's per capita income stood at roughly $28,000 per year, putting it close to the level of leading countries of Western Europe and Japan.

Even mainland China's rise to economic power during the past two decades does not support the view that detailed state guidance is necessary for economic success. On the surface, this admittedly does not appear to be the case since China looks like the quintessential state-guided economy, one where the central government seems to allocate investment funds, through the country's main state-owned banks, to favored enterprises in selected industries. Furthermore, there are some sectors of the Chinese economy, notably energy and agriculture, which are directly managed or owned by the government and thus continue to be centrally planned, to the widespread detriment of the population. In the case of energy, state control means that the country's citizens have no control over the temperature in their residences, schools, or places of work and thus live and work

much of the year in either uncomfortably cold or hot surroundings. As for agriculture, the Chinese government still leases rural land for up to thirty years and thus has not given its peasants clear title to their land, which reduces incentives for investment and improvements in agricultural productivity. It also contributes to the widening income disparity between the urbanized half of the country in the bustling and growing cities and the other half of the population living in rural areas mostly in poverty.[2]

Nonetheless, Chinese leaders over the last two decades have found a unique way to introduce and encourage entrepreneurial activity in an economy that once was centrally planned. Whether by design or by necessity, Beijing has decentralized economic and political decision-making to the provincial and municipal governments, which in turn have used their expanded freedom to engage in productive ventures as well as to grant licenses, incentives, and other favors to certain local privately owned "champions" (which are often purchased with "side-payments," or less politely, bribes) (Segal, 2005). Importantly, however, at the same time, Chinese government officials have tolerated the formation of countless numbers of other entrepreneurial ventures that have sprung up largely in the eastern, richer half of China, and by at least one measure, small- and medium-sized enterprises by 2003 accounted for half of the economy's GDP.[3]

The Chinese model may be a unique case, however, since other developing countries (with the outlying exceptions of Cuba and North Korea) do not have a legacy of central planning. In addition, China has advanced despite not fully having two of the ingredients for a successful entrepreneurial economy that we highlighted in chapter 5: effectively enforced property and contract rights, and a financial system that affords entrepreneurs access to capital to finance their ventures. The Chinese legal system is still a work in process, to put it charitably, and formal financial institutions—mainly the official state-owned banks—do not lend to new ventures, but instead have continued to funnel money to state-owned enterprises (though this should change as state banks will be privatized in 2007 as part of China's commitment to join the World Trade Organization). As a result, Chinese entrepreneurs typically borrow from informal lenders or investors (including families and friends) to back their enterprises (Dam, 2006). Below, we will suggest that informal law and finance eventually will reach their limits and that for Chinese entrepreneurship to move to the

next stage, the country will have to develop more formal ways of doing business. Already foreign investors have demanded greater formality, and as more Chinese firms do business with them, formal law and finance should gradually spread to the rest of Chinese enterprise.

Indeed, China owes much of its economic success to the welcome mat its leaders have put out to foreign investors. And investors have responded, pouring ever-increasing sums, talent, and know-how into the country. By 2004, China had become the leading destination in the world for foreign direct investment (FDI)—that is, "sticky" investments in plant and equipment or at least significant minority stakes in domestic firms—attracting more than $60 billion in that year alone. One of the amazing things about China's success in this regard is that foreign investors have continued to rush into China, although legal protections for contracts and property, and the courts that support them, are far from ideal, and corruption reportedly is pervasive (Wei, 2001). The best explanation we can give for this oddity is that China's large and rapidly growing domestic market makes the country "too big to pass up" so that investors appear more than willing to wait for the legal and institutional systems to improve. China's agreement to make necessary changes, and to open further parts of its economy that have been sheltered from foreign investment (notably, financial services), as part of its entry into the World Trade Organization gives investors reason to believe that their hopes will be realized (although in 2006 there were disturbing signs of a potential backlash against foreign investment, especially takeovers of Chinese firms by foreign investors).

Somewhat ironically, poor countries that want to emulate China's success in attracting foreign direct investment will have to take measures that, as a by-product, should foster domestic entrepreneurship in their own countries. Foreign direct investment has long been very unevenly distributed around the world, being concentrated in rich countries and in only a selected handful of developing or emerging market economies. For developing countries that have not been prime destinations for foreign investment to have any chance at cracking into this select circle of destination countries, their governments will have to take steps to make foreign investors feel welcome. At the top of this list are such essentials as enforceable rights of contract and property and a minimum of corruption. Having a suitable supply of trained labor, made possible by widespread primary

and secondary education, also is necessary. As it turns out, these elements are also essential to promoting domestic entrepreneurship.

In short, the examples of India, China, and Taiwan provide striking evidence supporting the World Bank's finding that state guidance is not the silver bullet for accelerating economic growth that some of its advocates may believe. Rather, economies grow because individuals and the firms they form are the engines that turn labor, capital, and technology into products and services that consumers, inside countries and beyond, want and are willing to pay for. Firms, in turn, just don't appear from nowhere. They are started and nurtured by entrepreneurs, who take on often seemingly unimaginable risks. Countries that want to grow cannot overlook this simple but powerful fact.

We want to be clear that our critique of detailed state guidance does not mean to include state efforts to attract foreign direct investment, either broadly or of a particular type. As we note at various points in this book, foreign investors can accelerate the growth of the countries to which they commit their funds, both by adding to the capital stock of those economies and, perhaps even more importantly, by transferring skills and know-how to the residents of those economies. It takes a sound legal system, some amount of physical (or increasingly, communications) infrastructure, and a reasonable degree of political stability for foreign investors to be interested.

But not all foreign investment is the same, and countries that have made efforts to attract it have had very different strategies and impacts, as Georgia Tech political scientist Daniel Breznitz has recently demonstrated (Breznitz, 2006). Most destination countries in the developing world (and in developed economies, for that matter) have concentrated on attracting foreign companies to build manufacturing plants, which employ, relatively speaking, large numbers of local residents and which over time often lead to process innovations in the host country. But only when efforts are made to encourage those plants, once built, to buy components and services from other domestic companies, as has happened in Taiwan, will local governments rapidly spur the development of local entrepreneurs. In contrast, Israel has pursued a very different strategy for attracting foreign investment, seeking not so much manufacturing but rather for foreign companies to locate their research and development activities within

Israel, while these companies (American in particular) manufacture elsewhere (either at home or in other locations). Breznitz argues that this knowledge-intensive FDI strategy leads more to product than process innovation, and relative to the manufacturing strategy, employs fewer people. As a result, the product innovation approach is associated with greater income inequality than is the process approach. Nonetheless, the Israeli strategy seems to put the country on the cutting edge, perhaps because of spillover benefits of enhanced R&D within the host country. India and China are making great efforts to attract foreign R&D activities to their economies as well and at this writing seem headed toward success.

The Benefits of Entrepreneurship for Poor Countries

For poor countries today, the examples of countries that have succeeded without state guidance or that have expressly abandoned it may not seem relevant for any number of reasons. India or China, for example, with their billion-plus residents and potentially huge markets for rich-country multinationals, may seem unique. Or Taiwan may seem like a special case because of its close ties to the United States. Or leaders (and residents) of countries where incomes are so low that they seem to be caught in a "saving trap"—a term coined by Columbia's Jeffrey Sachs—may see little hope for spawning locally based entrepreneurs who can power their economies' growth. Such despair, to the extent it exists, certainly is understandable, but it is also misplaced. Even in poor countries, facilitating entrepreneurship is a sound strategy—and arguably the best strategy—for accelerating economic growth.

Perhaps more than anyone else, management scholar C. K. Prahalad has made a powerful case that ample opportunities exist for entrepreneurs in or from developing countries to design and sell products and services specifically tailored for their residents (Prahalad, 2005). Among the many examples of bottom-of-the-pyramid innovations and successful commercial enterprises are cheap mobile telephones and service, countless brand-name consumer products that are sold in small units easily purchased by poor residents, and "smart" automated teller machines that enable individuals who cannot read to access financial services.

One especially successful bottom-of-the-pyramid entrepreneur whose activities are beginning to attract notice is Iqbal Quadir, a native of Bangladesh,

who emigrated to the United States and eventually became a (presumably well-paid) investment banker and, now, an academic scholar. Quadir helped started GrameenPhone, a joint venture with Grameen Bank. GrameenPhone allows for multiple users of a single cellular phone, which makes it inexpensive for many poor Bangladeshis to use. Quadir argues that by allowing Bangladeshis to avoid wasted trips, by making it easier to look for work, and by widening peasants' access to markets, cellular phones are contributing as much, if not more, to Bangladesh's GDP than any foreign aid channeled to the country. Quadir is not alone in his optimism about the benefits of mobile phones and their use in developing countries. According to researchers at the Progressive Policy Institute, by 2015 the continent of Africa should have more mobile phone users than the United States.[4] Meanwhile, at this writing, Quadir is attempting to use similar bottom-up and inexpensive technology to generate electricity and to provide clean water, at a more rapid pace and less expensively than if attempted top-down by government.[5]

Quadir's entrepreneurship may not have been ignited had he not left Bangladesh for the United States, which illustrates one way rich country economies can indirectly contribute to bottom-of-the-pyramid development strategies. A more direct route occurs when multinational companies headquartered in rich countries develop versions of their products for developing country markets. And that is exactly what an increasing number of them have been doing. Procter & Gamble and Unilever are two consumer products companies, for example, that have successfully introduced mini-versions of their various consumer brands—even poor residents in developing countries are highly brand conscious (no doubt due to global communication and advertising)—in numerous developing countries. If Prahalad is right, more global companies, especially those marketing information technology equipment and software, should be following similar strategies with their products in the future (Mohuiddin and Hutto, 2006). Indeed, the race is on among numerous manufacturers and entrepreneurs to develop inexpensive personal computers or "thin clients" (that would work with servers) for purchase or lease by the billions of residents of developing countries.

Bottom-of-the-pyramid strategies are inherently focused on developing products and services for domestic consumers residing in developing countries. But another, not mutually inconsistent, form of innovation looks out

to manufacture or provide services primarily for foreign purchasers. In the standard development story, those countries that have been successful in doing this—and there are many, the Asian Tiger economies being prime examples—have been powered either by multinational companies that locate their plants or offices in developing countries and use them as export platforms, or by home-grown entrepreneurs who license or just copy foreign technology and use domestic, lower-cost labor to export to third country markets. As we discuss shortly, this formula requires hospitable domestic institutions to attract foreign investors or to encourage domestic entrepreneurs to launch and grow their enterprises, and it seems to be key to the success enjoyed by the Asian Tigers in lifting their people out of poverty.

In fact, in recent years, some entrepreneurs in such developing countries as India and China have moved beyond simply replicating products or services developed abroad and are now designing their own process and product innovations destined for markets in richer countries. An increasing number of multinational companies have taken notice of this turn of events and are now moving their own R&D functions to India and China, to take advantage of the talent pool these countries have to offer, at a substantially lower cost than using research staff in rich country locales. Recent advances in computing and telecommunications make this far easier to do than in the past. India's software centers, for example, are famous for processing huge volumes of data while Americans and Europeans sleep. And researchers throughout the world use the Internet to collaborate with each other, accelerating the design and production of new products and services.

In sum, the rapid development of India and China is not irrelevant to poor countries today. The Indian and Chinese experience provides a powerful lesson to all developing countries: sooner or later, economic development, even in supposedly poor countries, eventually requires a healthy dose of entrepreneurship.

Summary

We trust readers are by now convinced, or at least are sympathetic with the view, that state guidance is not the silver bullet for growth acceleration that some advocates seem to believe it to be. But even those economies that may have pinned their growth strategies on some forms of state

guidance, and believe that this has been successful, have several reasons for wanting eventually—we believe the sooner the better—to facilitate the emergence of home-grown innovative entrepreneurs.

For one thing, governments that guide their economies and attempt to pick "winners" (firms or industries) in the process often get it wrong, for any number of reasons. Firms (and their governments) in other countries may do a better job. Or the firms in the industries chosen by governments practicing state guidance may prove unable to turn their state-provided advantages into commercial success because their activities are constrained by bureaucrats with little market experience. Furthermore, states that may, for a time, successfully steer their economies can't guide everything. There are sectors or industries that grow up without direct government support, and, indeed, the more such sectors there are and the more successful they become, the faster any economy—even one where state guidance plays a significant role—will grow. India's rise to prominence in information-technology-related activities provides one highly visible example.

In short, like parents who eventually must let their children leave home and fend for themselves, governments must sooner or later let the businesses that develop, with or without government support, fend for themselves in the global marketplace. The challenge is how to do this—that is, what specific steps are required and how fast should they be adopted?

Moving Away from State Guidance

The advantage of state guidance, where it is present in some form, is that at least the government and its leaders are apt to have some interest in promoting economic growth. To be sure, they also have or eventually acquire other motives as well: protecting the "turf" of their ministries or agencies, their power, and their jobs, among other objectives. This is why even a well-intentioned set of leaders who want to improve the living standards of their citizens nonetheless may be reluctant to abandon old practices, especially those they (strongly) believe to have been successful to date.

Nonetheless, presuming that some change is desired, for the reasons already advanced or because it has become clear that state guidance no longer is working or not advancing growth as rapidly as in some peer countries, two obvious questions arise. First, what specific steps are required to move an economy in an entrepreneurial direction? Second, at what pace should change proceed?

Elements of Reform

It will be no surprise to readers to realize that the main required elements of reform are the preconditions for entrepreneurial capitalism we outlined in the last chapter: a minimum of impediments or regulatory requirements to starting and expanding new businesses; incentives for productive enterprise; disincentives for unproductive entrepreneurship; and measures to ensure that successful entrepreneurs and, later, the larger firms they establish continue to innovate. In addition, entrepreneurial capitalism, like other forms of capitalism, is likely to be more successful the more extensive the provision for public goods, including education, roads and sanitation, and a functioning legal system. Here we use the basic framework of preconditions outlined in chapter 5 but focus on a few more concrete measures that seem particularly relevant to economies that can be characterized as primarily guided by the state.

LOWERING BARRIERS TO BUSINESS FORMATION The first and perhaps one of the more important lessons to be drawn from the experience of the recently successful economies is that productive entrepreneurs cannot be expected to appear and function unless they are allowed to—that is, only if the widely prevalent bureaucratic and other handicaps that beset the creation of new firms are significantly reduced. For several years the World Bank has been collecting detailed data on the costs of forming a business in countries throughout the world and reporting them in its annual *Doing Business* report. Although the figures change from year to year as the Bank obtains more data and as countries make efforts to reduce these costs (a commendable and important trend the Bank highlights and applauds), the Bank's findings from its 2006 report showing the countries where it is least and most costly (as a share of a country's GDP per capita), respectively, to register a business are illustrative of the problems that developing countries still have to surmount (see table 6).

Virtually all of the countries where it is easiest to start a business are developed, but all of the countries where it is most difficult are still develop-

ing if not very poor. Perhaps more disturbing is that for the second year in a row, the Bank reported that the start-up gap between rich and poor countries had widened. "Since 2003 rich countries have made business start-up 33 percent faster on average, cutting the time from 29 days to 19 days. They have cut the average cost by 26 percent. . . . Meanwhile, poor countries have reduced the time required by only 10 percent, from 62 days to 56 days. The cost remains a staggering 113 percent of (those countries' low) income per capita, and the minimum paid-up capital 299 percent of income per capita—10 times the level in OECD countries" (World Bank 2006, 11).

These are no small matters. It is not realistic to expect a substantial share of an economy's labor force to devote itself to entrepreneurship if that activity is systematically beset by impediments and booby traps. Yet the World Bank's reports illustrate how easy, at least in principle, it is to reform: eliminate the involvement of courts in business registration; do not require publication of the registration in a newspaper; introduce standardized and streamlined registration forms, with a fixed (and modest) fee; and impose a nominal or zero-capital requirement (unless the public interest unquestionably requires it, as in a newly established bank or provider of insurance). Furthermore, as telecommunications improve, allow online registration.

Taking some or all of these steps can quickly lead to results. The World Bank's 2006 *Doing Business* report documents sharp jumps in the numbers of businesses registered and increases in business investment in countries that have streamlined their business registration systems. Furthermore, as barriers to conducting business come down, informal firms no longer need to hide from the authorities and thus are able to grow to more efficient sizes, hiring more workers. Since formally registered enterprises also pay taxes, they help to fund government programs. It is thus clearly in the interests of local and national governments, as well as the wider society, to make it easier for entrepreneurs to do business.

FORMALIZING LEGAL SYSTEMS It is important not only for governments to smooth the way for enterprise formation, but to ensure that the institutional framework—and specifically the legal protection of contract and property rights—is secure. This proposition has become so well

established that we feel no need to discuss it further, except to note that it is more difficult to achieve than commonly supposed. A well-functioning legal system requires an effective judicial system, including independent judges who are well trained and cannot be bribed. It also requires an effective law enforcement system, since law is nothing unless individuals and firms expect that the rulings of courts always be enforced. It is not necessary that developing countries adopt any particular set of legal institutions, whether those in the Anglo-Saxon tradition (where much, but not all, law is "common" and tends to evolve over time through successive judicial rulings), those based on Civil Code countries (where law typically is made only by some kind of legislative action or official edict), or institutions arising from some other cultural source, although there is a running academic debate over which legal system is most conducive to economic growth.[6] The key, in our view, is that whatever set of institutions is in place must be stable and viewed widely by residents and foreign investors as trustworthy, so that all parties can reasonably expect to know what the rules are when they conduct business or go about their private lives.

Getting to this point is not something that happens with a wave of the hand or through some official pronouncement; it can take decades if not generations to establish (although the Russian experience of entrepreneurial values being handed down through family relationships in less than a generation is an encouraging sign that the transition can be much shorter). This isn't to say that growth cannot happen until this occurs, just that the circle in which commercial transactions take place can widen only when parties at both ends of any bargain have a common understanding of the rules. Since growth occurs largely through trade, which permits the specialization of labor, the more rapidly this circle of trust widens, the greater will be the opportunities for growth. In effect, trust can substitute for formal legal rights, and where it works, it can be a lot less costly than reliance on detailed legal documents (Fukuyama, 1996). This helps to explain why China, which has lacked a formal legal system, has been able, so far, to defy conventional wisdom and grow as rapidly as it has.

But, as Chinese leaders are learning, trust goes only so far. As the distance between parties grows—so that seller and buyer do not know each other or may not be engaged in repeat transactions—trust becomes an inadequate substitute for law. In a world of strangers, law must be present to

provide comfort and confidence to the parties that their deals will be honored and that their disputes, if they arise, will be resolved amicably, or at least fairly, through some kind of legal process. Foreign investors, in particular, will not do business in a country unless they not only know the rules of the game, but also have confidence that the rules will be enforced fairly, consistently, and expeditiously. This is why, among other reasons, China has agreed to beef up and further formalize its legal system and its courts as part of its agreement joining the World Trade Organization. The same legal institutions and protections that are developed for foreign investors inevitably must apply to domestic parties, so over time it is unlikely that China will continue to defy the conventional wisdom about the importance of reasonable and well-enforced contract and property rights for maintaining economic growth. China's legal system will become more formal, not just in name but also in enforcement (this includes the protection of intellectual property rights, a sore spot in China's relations with other countries, especially the United States).

IMPROVING ACCESS TO CAPITAL Perhaps the most visible indicator that an economy is characterized by state-guided capitalism is that much of its financial system—and specifically its banks—is government owned. There has been much progress in recent years toward the privatization of state-owned banks in many countries, developing and already developed, although there is still a long way to go in this regard. As of 2004, for example, state-owned banks served a majority of individuals in developing countries and were most dominant in China (which is well known) and also in India (which is not as well known, but where government-owned banks account for about 75 percent of all banking assets, although this share seems likely to decline with the rise of new domestically owned private banks).[7]

In principle, additional privatization should move countries further in the entrepreneurial direction, and thus we clearly side with those who encourage this. Privately owned banks are far more likely than government-owned institutions to base a decision to lend solely on the basis of commercial considerations, and for this reason they are more likely to back entrepreneurial ventures, not so much at the new firm's start-up stage (since even banks in developed countries do not do much of this) but for

firms that have demonstrated some success and are poised for growth. Furthermore, as states wean themselves off government ownership of banks, they are less likely for political reasons to prop up poorly performing commercial enterprises, which will open up their economies to competition from new firms.

But the difficulties of privatization of government-owned financial institutions should not be understated. For one thing, there are the political challenges of getting such a program started. Governments used to owning banks are reluctant to give them up, as are the favored borrowers who benefit from their special access to funds. As persuasive as the substantive arguments are to us—that privatization should improve growth by steering money toward firms with better commercial prospects and away from borrowers whose easy access to money has insulated them from the competitive pressures to keep innovating—governments long engaged in state guidance are much more likely to be moved, if at all, to privatize by the potential and immediate financial gains that can be realized when the shares of the state-owned institutions are sold. In addition, in a rare case, the desire to gain broader access to global markets can push governments toward privatization. Thus, as part of the conditions for joining the World Trade Organization, China had to agree to privatize its large state-owned banks by 2007. Other countries may be tempted to sell interests in state-owned financial institutions to foreign interests as a way of gaining access to the know-how (in this case, that associated with running banks) that typically comes with foreign capital.

But there also are practical difficulties entailed in privatization itself. At the top of the list: should the government auction off the shares of the bank to the highest bidder(s), and if so, which bidders should be allowed in the auction? Clearly, domestic banks already in operation should be allowed to bid, unless the acquisitions would lead to an undesirably high degree of concentration of local banking markets (which would deprive depositors and borrowers of significant choice among institutions). Permitting nonfinancial firms to bid reduces the risk of concentration but could lead to the problem of "connected lending," or the channeling of bank funds to the subsidiaries or affiliates of commercial owners, which led to unsound loans in the run-up to the Asian financial crisis of the late 1990s. Allowing foreign financial institutions to bid would enhance com-

petition in local banking markets and open the gates to cutting-edge technology, but it can for any number of reasons trigger significant political criticism from domestic interests who fear selling of their country's "crown jewels" to foreign interests (criticism that is not restricted to developing countries). Indeed, criticism of just this sort has begun to emerge in China, and the leadership has responded.[8] Meanwhile, if the shares are not auctioned but simply distributed to the residents of the population—much as the shares of former state-owned firms in Russia were distributed—enterprising, but potentially nefarious, individuals or groups can gather up the shares and concentrate ownership in an elite group, which may not only lead to the connected lending problem already noted, but trigger the kind of backlash against capitalism seen in Russia. In short, although we encourage governments that continue to own financial institutions to turn them over to private interests, we do not underestimate the political and practical difficulties of accomplishing the transition.

Accordingly, governments interested in promoting entrepreneurship should not limit their horizons to privatizing existing financial institutions. They should be open to the licensing of new ones, whether owned by domestic or foreign individuals or firms. Indeed, precisely because foreign firms are likely to have more experience and cutting-edge know-how and technology than domestic residents, governments should be especially welcoming to them.[9] Governments concerned about undue political opposition to foreign acquisitions of existing institutions can minimize this problem if foreign institutions are allowed to enter developing country markets only by establishing new firms or branches of their home offices. An objection may be raised that foreign banks traditionally have not shown much interest in financing local entrepreneurial ventures, preferring instead to lend to the local operations of home country firms or to larger companies in the countries they enter. This criticism does not take account, however, of the strong interest foreign banks are likely to display in consumer credit card lending, a market that has yet to be significantly developed in emerging economies. Many credit card borrowers in developing country markets can be expected to use their credit cards to start businesses, just as they do in the United States and other developed economies.

Of course, developing countries must have the capacity to oversee the

safety and soundness of newly chartered banks, in particular, skills that even bank regulators in developed countries still have not mastered (though there has been much improvement since the rash of bank failures in the United States and other developed economies in the 1980s and early 1990s).[10] Since the financial crises of the late 1990s, the International Monetary Fund and World Bank have worked together closely to provide technical assistance to aid developing countries in this essential endeavor.

EDUCATION Finally, although an educated workforce is not a magic answer to the growth puzzle, it is a necessary (though not sufficient) condition for rapid growth. After all, in the standard neoclassical growth model, for example, education increases economic output by enhancing "human capital," but only if the right institutional conditions are present to ensure that firms have incentives to make use of the additional skills. As for the link between education and entrepreneurship, to the extent there is one, it works through at least two channels. Education that both imparts knowledge and gives students the ability and confidence to recognize and act on commercial opportunities may well, eventually, lead more of them to be entrepreneurs at some point in their lives, again assuming the institutional incentives are in place for this to happen. Furthermore, by equipping students—and then adults—with the ability to read, to reason, and to solve problems, education makes individuals more productive on the job throughout their lives, which gives local entrepreneurs an available local pool of labor to draw from and thus greater incentives to start and grow their entrepreneurial ventures.

Countries have fundamentally two ways in which they can educate their citizens, either "widely" or "deeply." Because the resources of developing countries, especially the poorest ones, necessarily are limited, they are likely to be able to pursue only one of these strategies. Only later, as their level of prosperity rises, can they afford to pursue both.

The "wide" or "universal" approach seeks to provide roughly the same basic education—ideally through the equivalent of high school—to a country's entire population. Public or private funds may support universities, but this is not where the country puts its main emphasis, at least initially. Instead, some countries that have followed the universal model have essentially outsourced university-level or graduate education for their best

students by subsidizing them to attend universities abroad—historically in the United States but increasingly in institutions elsewhere (Australia, Canada, and Europe).

In contrast, the "deep" approach concentrates on educating the most talented individuals at home, in domestic universities, while giving somewhat less attention to universal education (perhaps by limiting the number of years of basic instruction made available to students of lesser ability). To do that, the universities themselves must be funded, their physical facilities must be constructed, and their faculties must be developed, either at home or through education abroad. For poor countries, the most efficient course, at least initially, is to send a core group of their most talent potential faculty members for training abroad (with monetary incentives to ensure their return) and then have the initial cohorts train new cohorts.

It seems reasonably clear which countries have followed each of these two very different approaches to creation of human capital. Asian and Eastern Europe countries have pursued the universal model, seemingly quite successfully. Students in primary and secondary schools in these countries generally rank quite high in international tests of mathematics and science achievement. Literacy rates for these countries also are among the highest in the world. In contrast, India provides the best example of a country that has pursued the "deep" or "elite" educational approach. Although it has taken several decades to accomplish, India has managed to create some of the finest engineering universities in the world. Access to them is strictly based on merit, and the annual examinations of high school students for placement into the top schools are major life events not only for students but also for the schools, neighborhoods, and cities in which they live. India also took the gamble that by letting some of its most highly educated individuals emigrate to the United States, some of them eventually would return to found or fund businesses in their home country. Although it took several decades for the results to come in, by now they have. The gamble has paid off, and many returnees are helping to build the Indian economy (Saxenian, 2006).

The Chinese approach to education stands somewhat between these two extremes. The country does an outstanding job educating its most innately talented students, especially in technical subjects, in primary and secondary schools, and it is investing heavily in university-based education, though its graduates do not yet seem to rank with those from the best Indian establishments. It is quite possible that this will change in coming years, although much may depend on how rapidly the Chinese government moves away from its authoritarian model, since scientific advances are more likely to flourish in environments that promote freedom of thought and expression. In this respect, India will continue to have an advantage over China because of India's embrace of democratic institutions.

Both the universal and elite educational models have been quite successful in stimulating aggregate economic growth but with very different distributional outcomes. As one would expect, if educational opportunities are to be afforded widely, then earnings should be distributed more evenly than in societies where educational resources are concentrated on a limited portion of the population. This helps explain the contrast in the relatively flat income distributions in the Southeast Asian economies, on one hand, and the much wider disparities found in India and China, on the other.

At the same time, some degree of income inequality is necessary to encourage entrepreneurship, especially its more innovative forms that typically entail more risk. India, in particular, has had more entrepreneurial success, at least in the high-technology sectors, than the Asian economies, arguably in large part because of the excellence of its universities.

Whether the universal or elite approach to education produces *greater* growth, however, is not yet resolved. This is because as economies grow richer, they can better afford to pursue both approaches simultaneously, and it may be difficult or indeed impossible to determine unequivocally which approach has contributed more to growth. For example, perhaps the greatest economic and social challenge now confronting both India and China is the need to spread growth to the large parts of their populations that have not benefited from the rapid advances in living standards enjoyed in the dynamic regions and among the more educated portions of their populations. Both countries have experienced social unrest because of this, although in China, continuing unrest is also related to demands for greater political freedom. The leaders of both countries seem committed to expanding educational opportunities more widely. At the other end of the spectrum, one can expect Southeast Asian and Eastern European economies to devote more effort to upgrading the quality of their univer-

sities. The major life sciences initiatives in Singapore and Korea are evidence that this is already happening.

It is not easy for even richer countries to master commitments to both universal basic education and excellence in higher education. For a time, the United States seemed to be successful at both, but despite high college attendance rates, it has had continuing problems ensuring that students from low-income backgrounds graduate high school and do so with the skills they need to earn adequate incomes. At the other extreme, Western European countries and Japan have long had excellent primary and secondary educational programs that top the international rankings, but they have had not the same success with their universities. Israel seems to score well on both dimensions—at the primary and secondary level and in developing world class universities—but some of its success may reflect the uniquely large (relative to the native population) immigration of highly educated former residents of the Soviet Union during the 1990s. It remains to be seen whether its educational success will continue in the twenty-first century.

So what does all this imply for parts of the developing world—notably much of Africa, Latin America, and portions of the Middle East—where literacy rates are relatively low and educational opportunities are less than universal? In particular, should these countries attempt to emulate the Southeast Asian/Eastern European universal model or the more elite Indian model? Many developing countries, even the poorest, have elites who currently send their children abroad for university education, as did the elite class in India's highly regimented caste system as that country's educational system was being established. In India's case, the country was able to build university faculties from the pool of children educated abroad who returned as adults. Other developing countries probably do not have a large enough population to pursue a similarly meritocratic approach, nor do they have the advantage India did of a broadly English-speaking populace that can easily fit into the global commercial system. Furthermore, an elite educational strategy that inherently leads to greater income inequality can aggravate existing social grievances, with which other countries may not be able to deal. For all these reasons, we are inclined to side with the conventional wisdom that encourages developing countries to make basic education universally available, to follow in the footsteps of the

Southeast Asian and Eastern European countries (though without replicating the state guidance of their economies) rather than to copy India's elite approach.

None of this will be easy to do, especially in the poorest countries in the world where disease rates are high, health is generally poor, and food is hard to get. For example, there are currently more than 100 million primary-school-aged children throughout the world who are not enrolled in school, 70 percent of whom reside in South/West Asia and sub-Saharan Africa (UNESCO, 2005). In 2000, the average sub-Saharan African had completed just 3.5 years of school, compared to 9.8 in advanced countries.[11] Of 155 developing countries, only about half have built enough schools to educate all of their primary-school-aged children (Bruns et al., 2003). And even in many of these schools, the facilities are not adequate. For example, more than 90 percent of sixth graders in Tanzania attend schools where no books are available, and two-thirds of the schools in Chad do not have latrines (UNESCO, 2005).

There are many reasons why primary-school-aged children in the developing world do not receive an education, including the cost of tuition and the distance they must travel to school. Gene Sperling, director of the Center on Universal Education at the Council on Foreign Relations, points out that "the decision whether to send children to school often falls to parents living in extreme poverty, for whom the costs of schooling may appear to outweigh the benefits" (Sperling, 2005, 105). In addition to the monetary cost of attending school, many families in developing countries face even larger opportunity costs, such as giving up of time spent collecting firewood and water or time spent earning an income. In many families, an important part of a family's income is earned from the labor of primary-school-aged children, and more than 11 million children under the age of fifteen in sub-Saharan Africa have lost at least one parent to HIV/AIDS (UNESCO, 2005). Clearly, these are huge problems to overcome.

Pace of Change

If we know what steps must be taken to accelerate economic growth, then why not do it all it once? That, in essence, was the question that was asked and answered in the affirmative by those who advised Eastern Europe and the former republics of the Soviet Union to embrace some

form of "shock therapy" after the fall of Berlin Wall. The feeling was that the chasm between central planning and a market economy could be crossed only in a single jump, and that historical circumstances had provided a crucial moment, a narrow window of opportunity for substantial and lasting reform. Any intermission in that process arguably would provide an opportunity for opposition to form and thus to defeat the effort.

The main argument against shock therapy is that it may not be politically viable, either at the outset or over the sustained period required for it to work. Not only are government officials likely to be wedded to the old system—whether it be central planning or its more benign cousin, state guidance—but so will those firms and their workers who have benefited from or are protected by the existing regime. Predictably, they will oppose change at the outset. But if the circumstances are right, as they were throughout much of the Soviet Union and Eastern Europe after the Berlin Wall fell, opposition at the outset may be too weak to prevent even radical change. The question, then, is whether after shock therapy has been applied, will the "patient"—namely, the citizens who must make their living in the economy—accept or reject the therapy.

As it turns out, events in Russia have provided a test of the political viability of shock therapy, and the test results have not been encouraging. Privatization was handled in such a way that a vastly disproportionate amount of the ownership of key productive facilities went to the oligarchs. This, in turn, led to a backlash from the Russian polity and the state, with the result (so far) that Russia's president, Vladimir Putin, has moved the country back toward state guidance. On the surface this may not appear to be a bad outcome, with Russian GDP growth averaging 7 percent since 2000 (Bush, 2006). An upper class, and even a middle class, bent on buying a rash of Western consumer goods is rapidly developing in the country. But the Russian economy remains heavily dependent on the prices of the commodities it sells on world markets, especially oil, and no doubt owes a large amount of its recent good fortune to the large run-up in oil prices since they hit rock bottom in the late 1990s. Inequalities in income, meanwhile, appear vast and growing. Over the intermediate to longer run, Russia must find a way to move away from state control and toward a better mix of entrepreneurial capitalism if it wants to diversify away from a commodity-based economy to ensure lasting growth that benefits the wider population.

Indeed, that is the central challenge that other economies that have relied on state guidance—principally in Asia, but also in India—face. If the Russian experience with shock therapy is any guide, then moving all at once is not likely to be the best option, even for economies where performance has been poor and one would expect political support for radical change. This was the case in Russia, and yet political support for shock therapy quickly wilted when the winners were so few in number and their profits so large. It might be claimed that things would have turned out differently if time and care had been taken to ensure that ownership was widely dispersed. But even if such a goal were achieved, success might well have proved to be temporary, since some owners could have been expected subsequently to invest heavily and gather larger shares in their enterprises, which would reconcentrate ownership. In short, the lesson we take away from the Russian privatization experiment is that capitalism, with its vast rewards to the successful, inevitably entails considerable inequality and that a great deal of inequality can spark a backlash.

If shock therapy for developing or emerging market countries may not generally be sustainable, what is the alternative? Our suggestion is some form of incremental change, or entrepreneurial capitalism *at the margin*. The notion is to encourage entrepreneurship *while not necessarily dismantling the part of the economy that is dependent on state guidance.*

China's move away from central planning provides perhaps the best example of this incremental approach. Rather than privatizing all of its state-owned enterprises (SOEs), including its banks, all at once—in much the way that was done in Russia—Chinese leaders have so far let the SOEs remain in business, supported by continuing loans from state-owned banks. At the same time, however, the central government has permitted provincial and municipal governments as well as individuals to launch their own enterprises. The not-so-hidden strategy is to let the seedlings of new enterprise grow while tending to the forest of the existing SOEs, with the hope that the new ventures eventually will become more important to the economy than the SOEs. That is exactly what has happened, apparently with great success. Whereas virtually all of that country's GDP as recently as the early 1980s was produced by state-owned enterprises or on state-owned land, by 2005, nearly two-thirds of China's output was generated privately.[12] The country's remarkable rate of output growth over this pe-

riod is without parallel anywhere in the world (although Ireland and India have been close).

Israel provides another example of a once-poor country, without natural resources, where the state, in combination with the country's labor unions, guided the economy during part of the postwar period and yet has successfully moved away from state guidance over time. Perhaps without knowing or acknowledging it, Israel followed China's example. It, too, focused on spurring growth at the margin in various sectors—agriculture, chemicals, electronics, and information technology. The Israeli government helped this process along by permitting, if not encouraging, technology transfer from its vaunted military to private uses. In addition, the country had the unique benefit in the 1990s of being a prime destination for a massive (relative to the size of the preexisting population) influx of highly educated immigrants from Russia and other former states of the Soviet Union. Although it took some time to absorb all of this talent, eventually the Russian immigrants helped fuel a boom in high-tech entrepreneurship, primarily as employees of firms started by Israelis but in some cases as entrepreneurs themselves.

Israeli government policy—beyond welcoming immigrants by providing Hebrew-language training and temporary housing and other living support—has facilitated the start-up and expansion of high-tech entrepreneurial ventures, in particular, through a government-supported venture fund that provided seed capital to enterprises that already had some private sector backing. In his exhaustive review of this program, Professor Dan Breznitz of Georgia Tech has concluded that this matching requirement, coupled with the nimble decision-making by the fund's leaders, made government support successful (Breznitz, 2005). Although it is difficult to know with precision how many companies have prospered as a result, the overall picture of entrepreneurial success is unmistakable: Israeli companies have been remarkably successful in "going public" on the New York Stock Exchange.

So how exactly can governments wedded to state guidance ease their way into more entrepreneurship? To begin with, they must be motivated to initiate change in the first place, and this is not likely to happen unless their economies are mired in recession or have posted lackluster economic performance for an extended period, either in absolute terms or relative to

countries their people and governmental leaders view as peers or rivals (such India and China with respect to each other, for example). In principle, authoritarian leaders should be expected to adopt reform measures less quickly than their democratic counterparts, since they do not face the same prospect of losing their jobs if national economic performance proves disappointing. Of course, there can be and are exceptions to this general tendency. China's authoritarian leaders, after all, did initiate that country's move away central planning, at least in large urban areas, although they have not been as enthusiastic about embracing free markets in the vast poor rural areas of the country. In contrast, although democracies may have the virtue of forcing leaders to recognize the need for change, strong vested interests in democratically governed countries may block effective reform that poses a threat to the jobs and incomes of specific, well-identified groups.

For these reasons, any reform strategy of moving away from state guidance is most likely to succeed if it facilitates entrepreneurship without at the same time transparently and immediately threatening large vested interests, in both the private and public sectors. Over time, however, as new ventures form and become successful, economic and political power naturally will gravitate in their direction, and the power of the previous regimes will wane. Pressure from outside sometimes can encourage change; indeed, Japanese leaders who want change often have welcomed pressure from abroad (especially the United States), which they can use to justify internal reforms. The desire to play in a larger, global arena can also provide a powerful impetus for change, as China's willingness to lower its trade and investment barriers and to improve its legal institutions in return for membership in the WTO attests.

The World Bank's annual publication *Doing Business* has provided for the first time a global yardstick for nations to measure their progress. A plausible inference from the fact that a number of nations have lowered the costs of starting and growing a business in recent years is that some governments take their rankings seriously and want to avoid the global embarrassment of being singled out every year as lagging in these efforts.

By the foregoing logic, therefore, several of the elements of the instruments for entrepreneurial success already identified would seem to have the highest priority. In the short run, measures to reduce the costs of

opening and growing new businesses should top any list. Although in principle new businesses can and will challenge existing enterprises, the large established companies that have benefited from state favors and guidance in the past may not view these start-ups as a significant threat because they are so small (at least at first). Furthermore, because lower registration costs should substantially reduce the degree of business informality, it should increase government tax collections and thereby give government officials a vested interest in reform. Indeed, astute governments may be able to use some of the additional revenue to lower business taxes generally, muting potential business opposition to reform efforts.

Similarly, if privatization of state-owned banks is deemed too risky politically for the reasons already discussed, a policy of chartering *new* banks, coupled with permission for foreign banks and financial institutions to enter local markets de novo should be welcomed even by existing enterprises, some of which may find that such moves lower their borrowing costs and enhance the availability of funds.

Educational reforms also should encounter little political resistance, and yet these efforts at the margin promise what are perhaps the greatest long-run benefits of all. A central problem in any effort to raise educational attainment, of course, is how to finance it. In this regard, an "elite" strategy is likely to be far less expensive than the "universal" approach, although as we have discussed, we are somewhat skeptical that other countries can be as successful as India has been with an elite approach. Moreover, a universal strategy would be significantly more equitable. Although in principle foreign assistance targeted toward education could help address the financing problem, monies directed through governments often do not reach their destination. Or recipient governments may use the foreign funds provided for one purpose (education) to reduce their funding of other necessary public services (such as health and sanitation). We will discuss these hurdles to effective foreign assistance below. But even if they can be overcome—in particular, if recipient governments actually use any additional funds to expand educational offerings rather than divert them to other uses—no developing country can or should count on such aid for any extended period. For this reason, the revenues for any program to expand educational opportunities must be found largely internally, which is yet another reason to drop barriers to business registration: to generate additional tax revenue to fund education. Even a universal program that is incremental in nature—adding additional grades to the universal program as the funds become available—can lead, over time, to revolutionary change, as the remarkable growth records of the Southeast Asian economies in the postwar era attest.

Transition Away from Oligarchy

It is one thing for governments that have long engaged in state guidance but want to move in a more entrepreneurial direction to begin the job, as difficult as it may be. It is quite another to expect oligarchies to change direction. After all, the central problem with oligarchs is that they normally are happy with the way things are, so they have little interest in stimulating growth, which can threaten to upset their comfortable positions. So how can the residents of the societies they rule—and there are plenty of them, throughout Africa, Latin America, and the Middle East—get them to change?

One can hope for the equivalent of a religious conversion, but this, of course, is hardly likely. Indeed, we do not know of any leader of what can plausibly be described as an oligarchic economy who has voluntarily taken steps to change it to some other form of capitalism. The pressure for significant—indeed, revolutionary—change, then, must come from either within or without the country, through some form of external pressure.

By "revolution" we do not mean replacing an existing regime by force, but preferably by peaceful, constructive change. Indeed, the most dramatic series of relatively peaceful economic and political revolutions to occur during our lifetime (or for that matter, in any lifetimes) are the transitions of the formerly centrally planned economies and authoritarian societies of Eastern Europe and the Soviet Union toward mixes of state-guided and entrepreneurial capitalism and democracy during the late 1980s and since. Each of these transitions responded to internal forces—citizen protests and demonstrations that eventually led to ouster of the authoritarian regime—but they also were heavily influenced by each other. In particular, it was not an accident that the transitions in Eastern Europe and the former Soviet Union occurred at roughly the same time. The dominance of the latter over the former meant that when the Soviet Union

and its political and economic systems unraveled, the Eastern Europe societies were destined to follow.

To be sure, the centrally planned economies of Eastern Europe and the Soviet Union were not strictly examples of oligarchic capitalism, but they nonetheless were all oligarchic societies in a fundamental sense. In each case, the members of the governing regime typically enjoyed monetary and nonmonetary privileges denied to other citizens. Power and wealth were concentrated in the hands of a relative few. The major difference between these economies and the oligarchic capitalist societies of Latin America, Africa, or the Middle East is that in the centrally planned economies the government directed all resources and prohibited the ownership of private property. But the ruling elites at the top certainly had the functional equivalents of private property, since they directed how state-owned property could be used, often to their own benefit.

That many of Eastern European and former Soviet economies are now moving, albeit at different paces, toward some form of capitalism that at least tolerates, if not encourages, entrepreneurship can only be counted as a major success, for them and for those in the rest of the world who care about economic progress. Ironically, the one major disappointment is Russia, the heart of the former Soviet Union. There, the central planning regime was almost immediately replaced by true oligarchic capitalism. Indeed, the very term "oligarchs" has come to be taken as synonymous with the handful of Russian billionaires who quickly assumed ownership and control of Russia's former state-owned enterprises (Gazprom, Russia's giant energy company, in particular), as well as the new firms in banking and various natural resource industries. But oligarchic capitalism in Russia has been short-lived and, at this writing, seems to have been replaced by a state-guided economy accompanied by an authoritarian political system overseen by President Vladimir Putin.

Recent history provides other examples of popular uprisings against oligarchic regimes, with similarly disappointing outcomes. The elections of Hugo Chavez in Venezuela and Evo Morales in Bolivia brought to power two leaders who have brought stronger state control and ownership to their economies. Argentina's Nestor Kirchner and Brazil's Lula da Silva ("Lula") have moved in a similar direction. In the Middle East, meanwhile, electoral democracy has yet to deliver positive economic news. We

do not dwell on the obvious but controversial case of Iraq, where democratic elections have been made possible only by U.S. military intervention, and where the outcome for democracy and for the economy is likely to be unclear for years. Rather, we point to the case of Palestine, where the oligarchic rule of the Fatah party under the leadership of Yassir Arafat gave way, again through democratic election in early 2006, to the extremism of Hamas. From what we can tell, Hamas came to power largely if not solely because the Palestinian people were fed up with the corruption and the economic failure of Fatah, and that this played a far more important role in its electoral victory than Hamas's terrorist past (and possible future) and its refusal to recognize the State of Israel. But because of its extremist "foreign policy," Hamas has forfeited the support of the United States and Europe and has had to turn to Iran and other sources for financial assistance. The country's economic prospects, at this writing, therefore do not look good even though the former oligarhic rule of Fatah has been overturned and even if Hamas is successful in reducing the corruption with which it was associated.

We draw what we believe are two significant lessons from all this. One is that democracy does not ensure that governments will allow or encourage pro-growth forms of capitalism. The democratic revolutions in Latin America in the 1970s and 1980s, and in many African nations in the 1990s, brought ruling elites to power who quickly established or perpetuated oligarchic capitalist systems—that is, economies that benefited the few and not the many. Indeed, although many Latin American countries introduced market-oriented reforms after they adopted democracy, their economies and governments still were tightly controlled by these elites, whose firms had licenses and other privileges not available to the many informal enterprises that operated in these economies. And, as noted, the populist backlashes of the past decade have only replaced one set of oligarchs with another, all of whom have handed out subsidies to satisfy their populist base of support but done little or nothing to encourage the formation and growth of new enterprises.

The failure of democratically elected regimes around the world to advance economic growth should give pause to policy makers in the United States who have sought to make the promotion of democracy the most important foreign policy objective of the nation. Not only has it become ap-

parent that free elections alone are insufficient to produce substantively democratic government—with the checks and balances of its different branches—but elections have elevated to power individuals with little or no commitment to encouraging economic freedom and independence.[13] This certainly suggests a revision of foreign policy goals, one that takes a broader view of democracy itself, beyond just elections and also includes the promotion of an entrepreneurial sector, principally via the means we have just discussed. Entrepreneurship is not just a key to advancing growth in other economies, for the benefit of local residents. It is also more likely to generate public attitudes that are friendly, or at least less hostile, to the wealthier economies. Entrepreneurs and their employees who need and can benefit from the capital equipment, technology, and know-how provided by American and other developed-country firms, through trade and direct foreign investment, are likely to view their suppliers, investors, and trading partners more favorably, probably far more so than those who may be working at state-owned companies whose managers owe their positions to leaders who whip up nationalist opposition to foreign firms and their governments as a way of distracting electorates from their poor economic conditions.

Our second lesson is one of realism: it may be that transition from oligarchy will sometimes or often entail a detour—perhaps a long one—toward some form of state guidance, as has occurred in Russia and seems to be occurring in some Latin American nations, before the countries have governments that are ready to embrace an entrepreneurial form of capitalism without the heavy hand of state guidance. People who are used to being ruled by governments dominated by a narrow group of elites, even if they are disliked, may not be ready to support new leaders who are willing to trust the market more than the guidance of the state. It may take another bout of economic stagnation, or worse, for voters to demand the greater economic rights and freedoms that are associated with more entrepreneurial economies and societies. Or, if the people are lucky, some of the new leaders may recognize this on their own.

What, if anything, can or should rich countries do to encourage peaceful revolutions against existing oligarchies and thereby produce more entrepreneurship and less state guidance if and when change actually occurs? The traditional foreign policy tool kit contains more sticks than carrots, or

typically sanctions against countries that are violating some widely shared norm. But it is well established that sanctions are not effective without widespread support (Elliot et al., 1990), and this is not likely to be forthcoming unless the behavior is deeply offensive, such as the Apartheid once practiced by South Africa or the construction of facilities for production of nuclear weapons in the case of Iran. It is highly unlikely that a large number of nations—even rich ones—will ever agree that the practice of oligarchic capitalism, even assuming it could be well defined, evokes sufficient moral outrage to justify sanctions of any type.

Another foreign policy stick short of sanctions is the "conditionality" the International Monetary Fund typically imposes on its loans to borrower countries—that is, the special requirements the borrowers must satisfy before loans will be granted to them. Certainly, many oligarchic economies have borrowed or continued to borrow from the IMF, and thus it is conceivable, in principle, that the Fund could condition its future lending on the kind of measures we have just surveyed for promotion of entrepreneurship. But the Fund's record of success in pursuing conditionality in the past is mixed at best (Goldstein, 2000). Moreover, in the wake of the strong criticism the IMF received during and after the Asian financial crisis for the many detailed conditions it imposed on its loans, the Fund appears to have returned to its traditional concentration on macroeconomic conditions, fiscal and monetary prudence. It is unlikely that the national directors of the Fund will impose such detailed conditions any time soon, however defensible they may be as a way of encouraging long-run growth.

This leaves policy makers to come up with some kind of imaginative "carrots" to induce oligarchic leaders or, more important, those who successfully replace them to move their economies in a more entrepreneurial direction. One possibility is for the United States to use its new conditional approach to foreign aid—carried out through the Millennium Challenge Account (MCA)—to channel aid to countries pursuing policies that promote entrepreneurship. Although we are skeptical of foreign aid as a way to encourage sustained growth, it is possible, at least in theory, for a conditional approach of this type to work, and for that reason we urge that it at least be tried.

Foreign aid always will have its limits, however. In addition, if countries are to promote entrepreneurial behavior on a consistent basis, there must

be popular support for doing so, especially in the "democratic" oligarchies. One way the United States, in particular, can help to generate this support over time is to sponsor the equivalent of "reverse Fulbright" scholarships/internships for college students and recent graduates to come to the United States to take an entrepreneurship practicum at a leading university and to then serve as interns in entrepreneurial companies.[14] The program could be available to foreign residents from developing countries, though special efforts and perhaps additional slots would be open to residents from countries that are deemed highly oligarchic or, more broadly, the countries of Latin America, Africa, and the Arab Middle East. Exposing increasing numbers of impressionable, potential entrepreneurs to the ways of doing business and, specifically, starting and growing a business would not only impart useful knowledge, but also instill an appreciation for entrepreneurial endeavors and what legal, institutional and other environmental conditions are required to make them flourish. Indeed, it could also be useful, if the governments of the sending countries were so willing, to expose government officials to such experiences (though they may be more difficult to place with entrepreneurial companies).

We strongly believe that U.S. entrepreneurial companies would welcome the opportunity to build human bridges to developing-country markets. Indeed, it is quite likely, in our view, that other rich countries might copy the program, although they would probably be successful in competing against the United States program only to the extent foreign applicants believed that they could gain equivalent entrepreneurial opportunities and training in those counties. But even alone, the United States program could build constituencies among potential future leaders in oligarchic developing countries for entrepreneurially driven economic change. Ideally, their experiences and outlook would spread like a virus—a healthy one to be sure—in their home countries. Like investments in education generally, which have long payoffs, this program might not offer easily seen returns for many years, perhaps a decade a more. Then again, it took nearly fifty years of fighting the cold war to bring success, though it has been replaced by a new ideological struggle between the West and fundamentalist Islam. Governments that are threatened by the spread of such fundamentalism might find an entrepreneurial scholarship/internship program for their young adults to be an especially important way to counter the influence that fundamentalist schools and clerics have exercised.

As for the United States, we believe that such a program, if scaled properly, could be as effective or more effective than any monies the government now spends on public relations or the marketing of United States–style freedoms and values. The best marketing device is a true entrepreneurial experience, which is, after all, the comparative advantage the United States still maintains relative to the rest of the world.

Aid, Savings, Investment, and Economic Growth

One of the keys to growth is a high level of savings, which makes possible high investment—both in physical and human capital. But what if the people are too poor to save on their own, needing what meager incomes they have simply to survive? The obvious answer, it would seem, is to attract savings from abroad. But what if the people in these countries also suffer from disease and poor health, and governments have insufficient resources to control, let alone prevent and treat them? To compound the problem, what if the countries are located in regions of the world near the equator where the heat and humidity are stifling for much of the year, or if they are landlocked and thus cannot cost-effectively import necessary raw materials nor export any semifinished products they somehow might be able to manufacture for sale abroad? In such environments, foreign investors are unlikely to commit funds, fearing that they will be unable to earn a return on investment that will compensate for the risks involved.

Welcome to much of Africa and, more distressingly, to much of the entire developing world, where several billion people live on less than $2 per day. Also, welcome to the arguments that have sustained several decades of foreign governmental assistance, from rich countries and the multilateral development banks they fund, to poor countries so clearly in need of such aid. On humanitarian grounds alone, it would seem cruel not to agree and, indeed, to oppose efforts to increase the amounts of foreign assistance the rich world currently provides. Rich country governments have put themselves on record in the 2000 Millennium Declaration as calling for annual aid equivalent to 0.7 percent of their countries' annual GDPs, even though nearly all of them (including the United States) currently fall far

short of this admittedly arbitrary goal. More concretely, at the G8 meeting in Scotland in July 2005, leaders of the rich countries of the world agreed to increase annual aid flows to developing countries by at least $50 billion by 2010 and to write off the foreign debts of eighteen of the world's poorest countries.

But does foreign assistance really help the economies of recipient countries? By the preceding logic, the answer would appear to be a compelling "yes" since external capital should add to the meager levels of domestically generated savings to fund both private and public investments. Yet out of the many empirical studies conducted on this subject and that control for the many other variables that may contribute to (or detract from) growth, the answer is mixed at best. Columbia professor Jeffrey Sachs has laid out perhaps the strongest, or at least the best known, case for the proposition that aid improves growth. In his book *End of Poverty,* Sachs makes out a seemingly powerful argument that by improving human health and education and by facilitating the construction of critical public infrastructure, aid can markedly improve the lot of hundreds of millions of people around the world currently trapped in poverty.

But other empirical studies, using the same cross-country regression model approach that Sachs and other aid defenders have followed, have reached a different conclusion. New York University economist William Easterly not only fails to find that foreign aid advances growth, but reaches the same conclusion with respect to other sources of capital (Easterly, 2001). A prominent 2005 study by the (then) chief economist of the International Monetary Fund and a colleague also found no statistical linkage between aid and growth (Rajan and Subramanian, 2005).

There are several reasons why aid may not succeed in enhancing growth, though it may save lives or provide other benefits to recipient countries.[15] At the top of the list is the fact that foreign aid provided by rich country governments or multilateral development institutions almost uniformly is or must be distributed through *governments of poor countries.* The leaders of the recipient governments, in turn, may misuse or appropriate the aid or allow the aid to reduce growth-relevant spending they might otherwise have undertaken on their own (the so-called substitution effect). Aid can be and probably is often misdirected, supporting investments in roads or infrastructure that do not necessarily achieve high social rates of return.

Whatever the reason, it should give policy makers some pause before they casually accept the all-too-plausible conclusion that more *government-to-government* aid is an effective way to enhance growth.

Even if the problems with government distribution could be solved, the beneficial impact of aid can be offset in other ways. In particular, the influx of aid dollars can push up a country's exchange rate and thereby make its exports less competitive on world markets. In fact, one study has documented a clear statistical linkage showing that in countries that receive more aid, labor-intensive and export-oriented industries grow more slowly than in other countries, controlling for a variety of other factors (Rajan and Subramanian, 2006).

It is quite possible, of course, that the cross-section time series regressions are misleading, that they simply are ill equipped in data and method to determine whether an aid-growth nexus exists, and if so, of what magnitude. After all, we ourselves discussed the limits of the statistical technique in chapter 2, suggesting that it either omitted or poorly measured the contribution of the difficult-to-quantify but important institutional and legal factors we have emphasized throughout this book. Perhaps the cross-country regressions also are missing an important, unmeasured contribution of aid. Or aid may fail the statistical tests because much of it is provided for *noneconomic* reasons, but instead to reward allies or to influence the foreign policies of donor countries. If it were possible to identify only those countries and time periods where enhancing economic growth was the primary or sole motivation of aid, maybe a statistically significant link between aid and growth would show up.

We will not attempt to resolve the statistical debate here, suspecting that it will continue long after this book is published and as long as aid continues to flow. Rather, we want to make three simple but important points that are relevant to the theses that have been offered here.

First, even if aid does somehow manage to jump-start the economic engines of poor countries, aid cannot *sustain* economic growth. As one analyst has concisely observed, "just spending more money is not going to build the long-term functional economies that will create the employment and wealth creation to get Africa and other poor countries out of their poverty trap."[16] Sustained growth will occur only if the institutional environment is modified so that it becomes conducive to growth. State guid-

ance, at least initially, may prove to be the key institution in many countries, as some continue to believe to have been the case in Asia. But over the longer run, state guidance must give way to some form of entrepreneurial capitalism, with incentives for innovative as well as replicative entrepreneurship, if growth is to continue.

Second, in theory, the Millennium Challenge Account program initiated by the Bush administration recognizes that U.S. governmental aid can be most effective or, indeed, effective at all if it is awarded primarily, or even exclusively, to countries that have adopted and are effectively carrying out growth-promoting economic policies. The MCA conditions (one of which explicitly relates to entrepreneurship) are listed in table 11. Such a precondition structure for an aid program may work where it is vigorously adhered to, though aid-supplying policy makers themselves may still find ways to circumvent the policy by continuing to channel aid funds in a manner that adheres to the traditional military or foreign policy reasons that have long influenced U.S. foreign aid policy. In any event, even if the conditional approach is strictly followed, it may find only a few recipients who qualify for aid, which would limit aid's reach (and clearly make it impossible for donor countries to meet the 0.7 percent of GDP target set in the 2000 Millennium Declaration).

Third, ultimately more thought must be given to processes by which aid can be delivered directly to the intended beneficiaries—the sick, children in schools, and so forth—immunizing it from the influence or direction of local governments. This would reduce the "leakages" in the aid pipeline associated with corruption, inefficiency, or substitution. The Gates Foundation, for example, is committing huge sums to preventing and fighting diseases in third world countries, and it is doing so directly, not through government intermediaries. Circumventing the distorting influences of local governments is more difficult to do with monies provided for education or to build infrastructure, which are inherently governmental functions. [17] We leave it to those more expert than ourselves to see whether aid supplied privately nonetheless can be delivered directly toward these uses.

Despite these obstacles, it is conceivable that aid has enhanced growth in countries where the institutional/legal and macroeconomic environments have not prevented economic progress. Certainly, the statistical studies whose results are so critical of the aid programs are not so far be-

Table 11 Millennium Challenge Account Conditions

Develop just governance
- Secure individuals' civil liberties, including political rights
- Sustain free and fair elections
- Maintain the accountability of the national government by fulfilling the will of its citizens
- Maintain an acceptable rule of law and control corruption, including bribes and graft
- Limit government power by holding periodic popular elections, creating an independent judiciary, and allowing freedom of speech and press

Invest in people
- Provide all citizens with primary education and guarantee a high completion rate by reducing child labor, increasing teaching quality, and allowing girls to attend schools
- Allocate funds to fight malaria, tuberculosis, diarrhea, and other illness that reduce the "productive strength" of the people
- Maintain high vaccination rates in order to address the basic health needs of the poor

Promote sound economic principles
- Develop and maintain laws that encourage economic freedom of individuals
- Support sound monetary and fiscal policies
- Create a fair and transparent regulatory system
- Decrease the length of time required to obtain government approval of private sector business activities and the creation of new businesses
- Open markets to foreign competition and increase international trade
- Create systems to properly manage foreign investment and avoid investing national funds in overly risky markets

Source: Schaffer, 2003.

yond criticism as to allow us with a clear conscience to forego all aid, particularly aid directed to immediate and dire crises, such as famine or infectious disease epidemics. But history suggests that generous aid programs are not the only path to economic advance, nor can they assure its result. There are many examples of now middle-income or rich countries that did not get to where they are because of foreign aid. The United States is a prime example, and it is at least arguable that aid was not the prime contributor to economic advance in the Asian Tiger economies. Although none of these economies had as many strikes against them as the impoverished lands of Africa, which are too poor to save and invest on their own, it

should not be forgotten that Europe and Japan, while rich today, were virtually prostrate after World War II. Although Marshall Plan aid was not inconsequential, this aid was not provided universally to the countries in question, which did much to help themselves.

In the end, however, it doesn't really matter whether one is an aid optimist or pessimist. Even most pessimists will concede that if aid is used well, it can help in the short run. Indeed, one really doesn't need statistics to recognize that aid can be useful for a while to do the things that Sachs calls for—provided one can ensure that the aid will actually get to those in need. But there remains much truth in the proverbial story that while giving fish can stave off starvation, the only way to continue to do that is to teach recipients how to fish. Thus, less developed countries need entrepreneurship to advance growth precisely because they have low savings. Even in the rich world, the evidence indicates that investment contributes only a small part of overall growth. Where savings and investment are limited, more emphasis on enterprise and innovation becomes indispensable, as the one way for those who have little to make do today, and to do better tomorrow. Once incomes grow above a certain level, saving and investment can increase—Southeast Asia demonstrates that—but, still, substantial progress always entails a need for innovation. Later, after success arrives, big firms can and need to contribute, just as they do in rich countries.

What Role for Micro-Credit?

Our focus in this book is on the critical role of entrepreneurship for economic growth and the attendant opportunity to reduce or eliminate poverty. Toward that end, we have offered various measures to promote this goal to protect the legitimate interests of prospective entrepreneurs and to enhance the opportunities for their activities. Noteworthy in this list are suggestions to provide prospective entrepreneurs with funding, without which they cannot hope to launch their new firms. An example of this is a funding arrangement that has recently attracted much favorable attention, showing the legitimate grounds for hope that it appropriately offers and, simultaneously, the limitations and obstacles it has, at least so far, been unable to avoid. In these two sides of the matter this topic is not alone. We know no proposed remedial measures that are immune from handicaps and that offer a sure and easy path to growth.

Specifically, we refer to policies to promote "micro-credit," or lending of small amounts ($1,000 or less) to start-up businesses.[18] The founding of the micro-credit movement—and that is what it has become—is generally credited to Muhammad Yunus, an economist-turned-banker from Bangladesh, who established the Grameen Bank in 1976, although two other nonprofit micro-lenders (Opportunity International and ACCION International were established a few years earlier). Yunus and Grameen are most famous for providing credit to groups of women entrepreneurs, typically no larger than five, who in turn rotate loans among their members. As the initial borrowers repay their loans, the funds are reloaned to the members next in line. A key feature of the lending contract is that all members are *jointly liable* for the debts of the group; that is, if a member of the group doesn't service her loan on time, the others are responsible for payment. Why women? Because Grameen concluded that women are more willing to join such groups or are better credit risks than men—or both. The Grameen lending model has been copied in some form by many other lenders around the world, not just for women but also for men, enabling millions of people around the world to start businesses that they otherwise would be unable to launch.

Micro-lending has now been widely embraced by developing countries, by rich countries, and by multilateral lending institutions, such as the World Bank. During 2004, for example, development agencies reportedly committed $1 billion to microfinancial institutions around the world. Former President Clinton expressed his verbal support of the concept throughout his presidency and made numerous visits to micro-lenders while on foreign trips. Two international Microcredit Summits have been held, the first in 1997 and another in 2002, and have attracted leaders from around the world. Yunus won the Nobel Peace Prize in 2006.

Since financing is important for entrepreneurs and micro-lending seems to be filling an important vacuum in the marketplace, it would appear to be an essential ingredient in policy makers' toolbox for encouraging growth in developing countries. But the reality is more complicated.

Grameen Bank and other micro-lending institutions got their start and still operate with the aid of subsidies from nonprofit organizations (such as foundations, initially the Ford Foundation, in particular), governments, and multilateral lending institutions. There are signs that a few and perhaps an even growing number of micro-lenders have since become

profitable,[19] but clearly the good work of micro-lenders will remain limited as long as they are forced to rely on subsidies. There is not a bottomless well of nonprofit or government support for this activity, however noble.

The hope, of course, is that the nonprofit micro-lenders will induce more conventional lenders to participate in the market, either directly by lending to customers or indirectly by lending to other micro-lenders. It is too early to tell whether and to what extent this will occur, although there are a few promising signs. Citigroup, ABN-Ambro, and ANZ (a leading Australian bank), among others, have mounted ambitious efforts (Barr, Kumar, and Litan, 2007). Similarly, a Latin American investment pool, Profund, has successfully invested in a number of micro-lenders in the region, achieving a 6 percent annual return—low, given the risks, but providing some profit nonetheless. The key to Profund's apparent success, however, is that the lenders it finances charge their customers interest rates that reflect market risks, and these rates can be as high as 100 percent per year. These seemingly exorbitant rates of interest (certainly to readers living in more developed economies) reportedly are still well below interest rates charged by "informal" lenders. Nonetheless, high market rates limit the ability of new firms to get started.

Another question surrounds the ability of micro-lending, even if subsidized, to produce sustained economic growth. Micro-borrowers use their credit overwhelmingly, if not exclusively, to create what we have labeled "replicative" firms, or enterprises that simply reproduce what many others have done or are currently doing. Economies can grow only so much through replicative activity. Growth is capped when all those who otherwise would not be employed are engaged fully in replicative activities.

For economies to enjoy further growth, one or both of the following must occur. Some not insignificant portion of the replicative enterprises must grow substantially larger, to realize economies of scale and thus to achieve the productivity gains that ultimately drive improvement in living standards. Or some firms must begin or transform themselves into innovative enterprises, selling new products or services or existing ones that make use of innovative and productivity-enhancing inputs or modes of organization. As we have suggested, some form of innovation is indispensable for all economies if they want to grow at a more rapid rate.

It is not yet clear, however, to what extent micro-lending has contributed or in the future is capable of contributing to either of these developments: marked growth of replicative enterprises or the launching of innovative ones. For both of these outcomes to occur, more conventional lending, at lower rates of interest, will be required. Indeed, one of the other large players in the micro-lending market, ACCION International, has learned that over time the more successful businesses in any group need more funding than the overall group can obtain. Those businesses *must* graduate to the conventional loan market or else find their opportunities for further growth constrained.

In short, the most important long-run contribution of the micro-lenders is that they have demonstrated how it is possible to enable millions of the poor to reach the first rung on the ladder to economic success. But the acid test is whether countries have the laws and institutions that will enable those who make it to the first rung to climb higher and, in the process, drive economic growth for their entire economies. This requires much more than micro-lending, although microfinance increasingly looks like it might be one good way to start.

Conclusion

In this chapter we have avoided presenting a set of well-specified recipes that any government of a less developed country with ambitions for growth can follow in detail, confident that it will lead unerringly to that goal. We have offered no such detailed formulae because we are convinced that no such dependable instructions exist.

Instead we have discussed the broad means that may be able to move countries from regimes of state guidance or oligarchic capitalism, the foundation of the poverty of so many societies, toward the ultimate goal of more entrepreneurial economic systems that we believe will be more conducive to sustained growth. As an intermediate arrangement, we have also posited that governmentally directed capitalism may be helpful, but even this latter arrangement eventually will run out of steam as a growth engine, and so the way to further transition toward more entrepreneurship is unavoidable if catch-up is to be achieved.

We have emphasized the difficulty of carrying out such transitions and

have discussed in broad, general terms what the rest of the world can do to help the process along and what approaches are likely to prove disappointing. But even if a country has succeeded in inaugurating a regime of entrepreneurial capitalism, the state will continue to play a role in setting up and monitoring the rules of the game that provide the appropriate incentives. Here the discussion of what should and what should not be done must become more specific, more systematic, and more exhaustive. Unfortunately, disappointing experience shows that no one is yet in a position to provide such a definitive elaboration of these matters. But we hope the next two chapters can take us a good part of the way, describing the actions, rules, and institutions that can produce a combination of entrepreneurial and big-firm capitalism that experience shows to be capable of doing the job.

7

THE BIG-FIRM WEALTHY ECONOMIES: PREVENTING RETREAT OR STAGNATION

In 1979, Ezra Vogel, a professor at the Harvard Business School, published a highly acclaimed book, *Japan as Number One*. The book, and its compelling title, seemed to capture the fears of the country during the traumatic decades of the 1970s and 1980s, which were punctuated with the deepest U.S. recessions of the postwar era, followed by a recovery accompanied by (then) historically large federal budget and trade deficits, both in absolute terms and relative to GDP. A good portion of the U.S. trade deficit was with Japan, whose companies and their owners used their export earnings to invest in new manufacturing plants in the United States and, in some cases, to buy "trophy" real estate, such as the Pebble Beach Golf Course and Rockefeller Center in New York. Many politicians, and many American citizens, feared that Japan would soon displace America as the leading economic power in the world.

Readers of Vogel's book, of course, now know that these fears proved to be without foundation. A decade after the book was published, the Japanese stock market, where share prices had soared, came plummeting back to earth with a massive thud. Japanese banks, which had expanded largely on the back of the rising prices of the shares they held, lent too much money to many ill-founded projects and borrowers and eventually experienced the worst losses of any banking system on record. At one point in the 1990s, it is conceivable that had the assets and liabilities of the country's largest banks been "marked to market," all of them would have been insolvent in economic terms. The sluggish response of Japan's political