

## Chapter 2

# Narrowing the Economic Gap in the 21st Century

Stephen L. Parente

**T**oday, huge differences in living standards exist across countries. Even after adjusting for differences in relative prices, gross domestic product (GDP) per capita, the best proxy for a country's living standard, is reportedly 50 to 60 times greater in the richest industrial nations than in the poorest countries. Interestingly, substantial differences such as these are a recent phenomenon. Up until about 1700, differences between nations were on the magnitude of a factor of 2 or 3. Thus, in the past 300 years, the gap between the world's richest and poorest countries has widened tremendously.

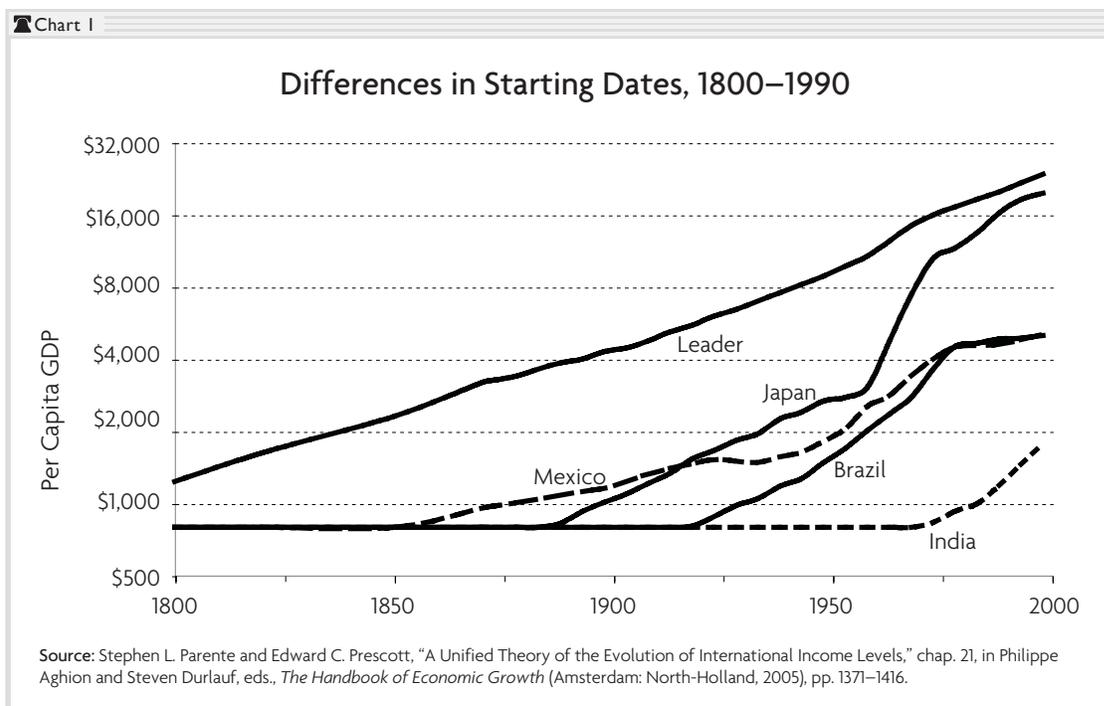
If an increasing disparity between rich and poor is a reality of modern times, what then lies ahead over the next century? Will differences continue to widen, or will they narrow to a lesser factor, similar to the situation observed prior to 1700? My answer to this question—drawing heavily on my own work with Edward C. Prescott over the past decade, as well as rel-

evant work of other scholars,<sup>1</sup> and taking into consideration a number of complex issues—is that differences between rich and poor will not widen significantly in the future, though it is far less clear whether they will return to their 1700 equivalent levels.

We know that differences in living standards between rich and poor countries can be eliminated in rather short periods. Several poor countries have been able to catch up to the industrial leaders in terms of income levels by experiencing more rapid growth. However, we know from the limited number of success stories that catching up is not easily accomplished. Political stability, while necessary, is insufficient. Rather, catching up requires certain economic reforms—reforms that are likely

---

1 Stephen L. Parente and Edward C. Prescott, "A Unified Theory of the Evolution of International Income Levels," in Philippe Aghion and Steven Durlauf, eds., *The Handbook of Economic Growth* (Amsterdam: North-Holland, 2005), pp. 1371–1416.



to be opposed vigorously by certain societal groups who rightly or wrongly believe these reforms will be to their detriment. Weakening and countering this opposition will be key to catching up in the next century.

## THE EVOLUTION OF INTERNATIONAL INCOMES

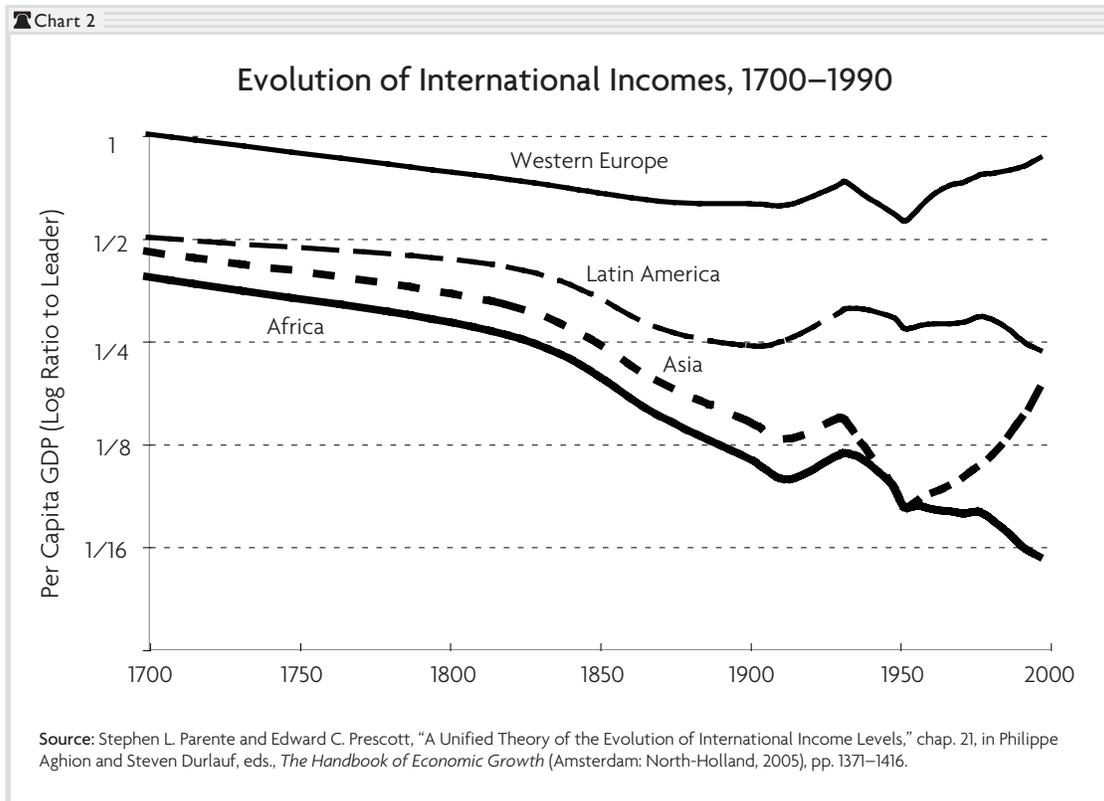
**Different Starting Dates.** The widening income disparity that has occurred since the 18th century reflects the fact that some countries began to experience economic growth before others. Prior to 1700, there was little to no increase in the living standard of any country. This all changed in 1700 when England began to experience sustained increases in its per capita output. Soon thereafter, Western Europe and the ethnic offshoots of England began to develop. At first, increases in these early starters were modest and irregular. However, since the beginning of the 20th century, these increases have been larger and more regular, with income doubling roughly every 35 years—a phenomenon that Simon Kuznets labeled *modern economic growth*.

Over time, more and more countries have come to accomplish this feat of increasing their per capita output. Chart 1 shows the paths of

per capita GDP for a selected number of countries since 1800, as well as that for the leader, which was the Netherlands from 1800 to 1820, the United Kingdom from 1820 to 1890, and the United States subsequently. Starting dates differ substantially across countries: Mexico started to grow around 1860; Japan, around 1870; Brazil, around 1920; and India, around 1970.

The implication of these different starting dates for the world income distribution is depicted in Chart 2, which plots per capita GDP for four major regions relative to the leader's level between 1700 and 1990. With the exception of Africa, the gap between each region and the leader stopped increasing once the region began modern economic growth. Africa's gap has continued to widen because, although almost every African country has become richer in the past 50 years, the increases have been modest and highly irregular.

**The Advantage of Being a Late Starter.** Experiences of regions have varied subsequent to initiating economic growth. Latin America, which started modern economic growth around 1900, has subsequently maintained an income level that is 25 percent of the industrial leader's. Asia, which started economic growth around 1950, has eliminated a large part of its



gap, having outperformed the United States, which continued to grow at its historical rate of 2 percent per year.

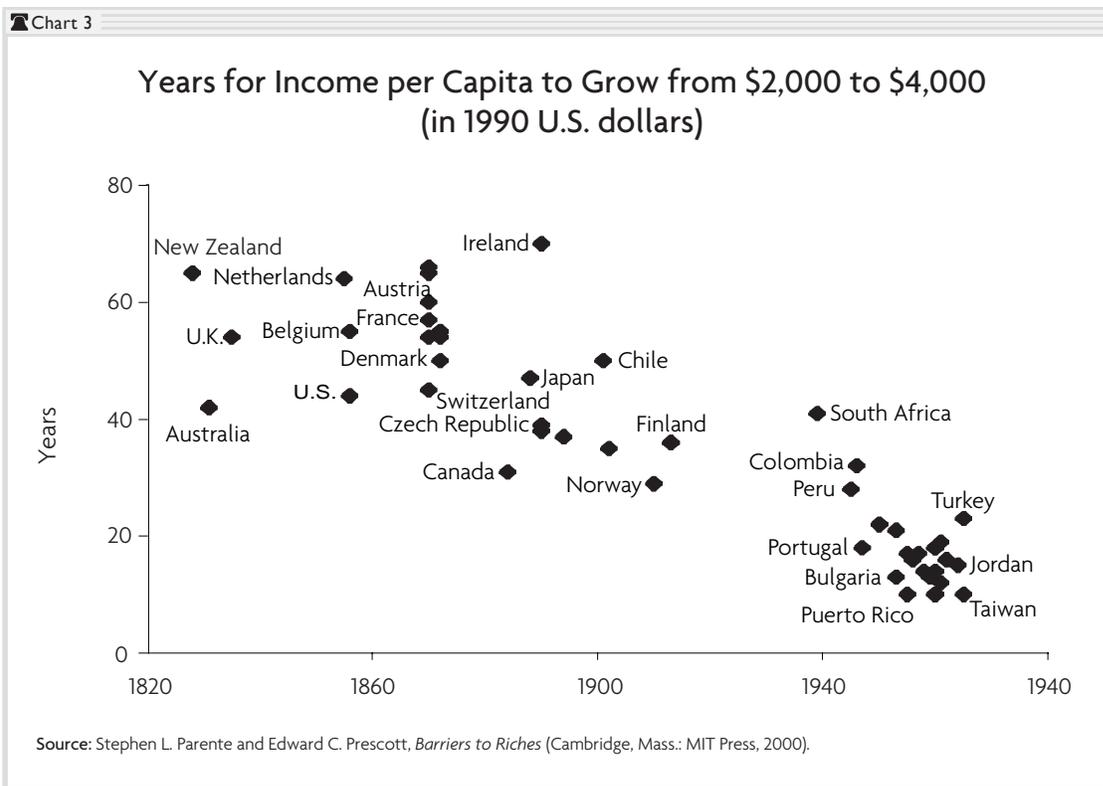
The rapid growth subsequent to 1978 in China, with 20 percent of the world's population, played an important role in Asia's catching up, as did the dramatic growth experiences in a number of other Asian countries: Japan went from 21 percent to 87 percent of the U.S. level between 1950 and 1993; South Korea went from 11 percent to 43 percent between 1960 and 2000; Singapore went from 16 percent to 80 percent between 1960 and 2000; and Taiwan went from 8 percent to 55 percent between 1952 and 1995. Such experiences are seen as development miracles.

These growth miracles are a recent phenomenon and are limited to countries that were well behind the industrial leader at the time the miracle began. No record exists of a poor country prior to 1950 doubling its per capita GDP in a decade or less as Japan, South Korea, Taiwan, Singapore, and China all have done, and at no point in history has the industrial leader accomplished this feat. Whereas all of

these countries are located in Asia, not every country that has realized large increases relative to the leader is located in this part of the world. As a matter of fact, China's catching up is not all that different from that of the African country Botswana, which increased its living standard from 8 percent to 21 percent of the U.S. level between 1970 and 1999.

As can be seen from these Asian and African examples, rapid growth is possible. In fact, it seems that the farther behind the industrial leader a country is, the greater its potential for rapid growth and catching up is. That is, late developers have been able to double their incomes in less time than early developers.

Chart 3 illustrates this point. It plots the number of years it took a country to double its income from \$2,000 to \$4,000 (in 1990 prices) against the year it first achieved a per capita income of \$2,000. Rich countries such as England, the United States, and France, which achieved this level of income roughly 200 years ago, took around 45 years to double their incomes to \$4,000. Countries that achieved this minimum level of income after 1950, such as



Taiwan and Portugal, took only 15 years to double their incomes. These results are robust to the starting income level. That is, whether we use \$500, \$1,000, or \$2,000 as the initial level, countries achieving these levels after 1950 have been able to double their incomes in far less time than countries achieving these levels earlier in history.

## THEORIES OF INTERNATIONAL INCOMES

What explains this evolution of incomes, characterized by its huge disparity and rapid catching up by a handful of late developers? Today, there is widespread consensus that differences in resources—that is, a country's land, workforce, and capital—play only a small part in this explanation. Instead, macro and micro evidence suggests that differences in *Total Factor Productivity (TFP)*—that is, the efficiency at which a society uses its resources to produce goods and services—play the primary role.

**Macro Evidence.** A prime determinant of a country's capital stock is its savings rate—the amount of output not consumed. A prime determinant of a country's labor resource is the

education of its population. Casual inspection of international savings rates and educational attainments over the post-World War II period suggests that neither resource is important for understanding the evolution of international incomes. Savings rates are not substantially different between rich and poor countries. According to the International Monetary Fund, both rich and poor countries on average invested about 20 percent of their GDPs. Educational differences are more pronounced, but the fact that many poor countries succeeded in eliminating part of their educational gaps with the rich countries over the past 50 years while failing to eliminate any part of their income gaps suggests that this resource is not critical.

A rigorous examination of the contribution of these resources for international income differences was undertaken by Peter Klenow and Andres Rodriguez-Clare in 1997<sup>2</sup> and by Robert E. Hall and Chad Jones in 1999.<sup>3</sup> This exami-

2 Peter Klenow and Andres Rodriguez-Clare, "Economic Growth: A Review Essay," *Journal of Monetary Economics*, Vol. 40 (1997), pp. 587–617.

3 Robert E. Hall and Chad Jones, "Why Do Some Countries Produce So Much More than

Table 1

### Implied Differences in Total Factor Productivity, 1988

Country	Per Worker Output	Relative TFP
United States	100	100
West Germany	82	91
France	82	113
United Kingdom	73	101
Japan	59	66
South Korea	38	58
Portugal	37	75
Malaysia	27	37
Thailand	16	76
Philippines	13	22
India	9	27
Kenya	6	17

Source: Robert E. Hall and Chad Jones, "Why Do Some Countries Produce So Much More Than Others?" *Quarterly Journal of Economics*, Vol. 114 (1999), pp. 83–116.

nation, which takes the form of an accounting exercise, begins by postulating that a country's GDP is a function (F) of its physical capital (K) and human capital (H) multiplied by its TFP, or efficiency (A):

$$\text{GDP} = A F(K, H)$$

Measures for K and H are then constructed for each country, and these measures, together with each country's GDP, are used with the aggregate production function to impute each country's efficiency. The finding of both studies is that efficiency is strongly and positively related to the level of development. Hall and Jones, for example, report a correlation coefficient between the log of output per worker and the log of TFP equal to 0.89.

Table 1 displays a representative sample of their findings for a set of rich, middle-income, and poor countries. As can be seen, TFP is, for instance, more than five times higher in the United States than in Kenya.

**Micro Evidence.** More support for the efficiency-based theory and against the resource-based theory of international income differences comes from industry and firm-level studies.

These studies have the advantage of examining easily observable features of the production process: technology, capital, land, and labor. In the past two decades, an increasing number of such studies have been carried out, and the McKinsey Global Institute (MGI) has been instrumental in this regard.

Since 1990, MGI has examined the nature of production at the firm level for a set of representative industries in 13 countries that include rich, middle-income, and

poor nations. Findings indicate that output-per-worker productivity differs considerably across countries. Even among the rich countries, productivity can vary by a factor of 3. Additionally, productivity rankings by country vary across industries. No country is the most productive in all industries; for example, whereas the United States is the most productive country in the service industries, Japan is more productive in several manufacturing industries.

In examining production of individual businesses operating in a given industry in each country, MGI concluded that the main source of output-per-worker differences was TFP, not worker skills or the amount of machinery and equipment. Rather, less productive countries in a given industry failed to apply the best-practice technology used in the most productive country. Moreover, in many cases, less productive countries failed to maximize efficiency in their given technology. For example, MGI estimated that India's modern industries could increase their productivity from 15 percent to 45 percent of their U.S. counterparts simply by changing the way production was carried out.

## BARRIERS TO TECHNOLOGY ADOPTION

Why then do poorer countries use inferior technology and in many instances operate them

Others?" *Quarterly Journal of Economics*, Vol. 114 (1999), pp. 83–116.

below their full potential? The answer is not that poorer countries have a smaller stock of knowledge to access. The stock of useable knowledge is essentially the same for each country, as ideas do not obey international borders; there is a tremendous amount of knowledge that is publicly available, and even knowledge that is proprietary can be accessed through licensing agreements or foreign direct investment.

This means that poor countries do not need to spend resources on reinventing ideas, but rather can tap into an international knowledge base. And because this base continues to grow, late starters have an advantage. This is why late developers have been able to double their incomes in far shorter periods than early developers and, hence, why countries that begin to develop in the future will also benefit from existing world knowledge and experiences.

While it is true that poor countries have access to the same stock of knowledge as rich countries, it is also a fact that they use far less of it because they impose far more constraints, or barriers, on their technology choices. The barriers take many forms. In the end, each constraint limits competition and in consequence deters entry by domestic and foreign firms making use of more efficient technologies. In some cases, public safety or the environment justifies the constraint; but in most cases, the barrier exists to protect a group with interests vested in the status quo. Because of these special-interest groups, removing barriers is not easily accomplished. However, when they are eliminated, large gains in efficiency typically follow.

**Examples of Barriers.** Some constraints, such as work rules, affect how a given technology can be used. A work rule, which specifies how inputs can be used, leads to overstaffing and underutilization of machines. For example, in Brazil and New Jersey, government regulation requires that all gas stations be full-service. In Australia, a work rule in the beer industry specifies that individual forklifts cannot be operated by different people.

Besides barriers on how technology can be used, other constraints affect which technology is used. Regulation that effectively outlaws the use of a certain technology is one example of

this type of constraint. Such constraints can be found in many countries, including the rich ones, in the form of zoning laws that prevent large retailing formats. In India, for instance, a law called the Small Scale Reservation prevents large-scale plants from being built.

Often, constraints on technology are less explicit than zoning laws yet equally effective. For example, bureaucracy and bribes constitute very effective constraints on the technology choice of firms. Hernando de Soto showed exactly how these types of barriers work to lower efficiency. He pointed out that the huge costs associated with bureaucracy and bribes in Peru cause many people to operate illegally.<sup>4</sup> Such informal firms, however, are not efficient because, to avoid detection, they tend to operate older and smaller-scale technologies.

Peru is not alone in this respect. Simeon Djankov and his co-authors have shown that the bureaucratic cost of establishing a firm is strongly and positively correlated with the level of a country's development.<sup>5</sup> For example, they find that in 1999, the average cost of bureaucracy in the 25 richest countries in their sample of 100 countries was 20 percent of GDP, whereas the average cost of the 25 poorest countries was an astounding 134 percent of GDP.

Another type of barrier relates to government involvement in business. For example, preferential treatment of firms in the form of taxes, subsidies, and awards of government contracts also works to reduce efficiency. MGI found that such preferential policies are common, for example, in Russia. These constraints keep inefficient firms afloat and prevent efficient businesses from entering since they cannot compete successfully with privileged incumbent firms.

Moreover, state-owned enterprises are notoriously inefficient. In India, for instance, output per worker in government enterprises in

---

4 Hernando de Soto, *The Other Path: The Invisible Revolution in the Third World* (New York: Harper and Row, 1989).

5 Simeon Djankov, Rafael La Porta, Florencio Lopes-de-Silanes, and Andrei Shleifer, "The Regulation of Entry," *Quarterly Journal of Economics*, Vol. 117 (2002), pp. 1-37.

power generation, telecommunications, and retail banking is around 10 percent of the average U.S. level of output in those industries. In contrast, private-sector Indian firms operating in those same industries achieve 40 percent of the U.S. level.

Prohibitions on international trade constitute other important constraints. Quotas, tariffs, multiple exchange rate regimes, and restrictions on repatriation of profits have the effect of lowering the price elasticity of demand for goods. This is important because a higher price elasticity of demand translates into a larger percentage increase in revenues following a 1 percent decline in the good's price, hence increasing the profitability of innovation. Imperfect enforcement of debt contracts also reduces efficiency. That is, when debt contracts are not fully enforceable, individuals are not able to obtain the financing they need to adopt best-practice technologies.

Overall, as poor countries impose numerous constraints on the economic choices of their citizens, differences exist in quality as well as quantity. That is, the type of barriers and the number of barriers imposed vary from one poor nation to another. The MGI studies provide some information on the prevalence of various barriers in different countries.

However, a far more comprehensive picture of the mix of barriers across countries is provided by the annual *Index of Economic Freedom* published jointly by The Heritage Foundation and *The Wall Street Journal*. Since 1995, the *Index* has assigned a score for each country on 10 different categories of barriers, or economic freedoms to use the language of Milton Friedman. These categories include constraints on international trade (trade freedom); restrictions on foreign investment (investment freedom); bureaucracy (business freedom); and corruption (freedom from corruption).

**Barriers Matter.** How do we know that barriers to technology adoption are the main reason for low TFP in poor countries? There are two bodies of support, one empirical and the other theoretical.

The empirical support takes the form of industry studies that document the changes

in productivity associated with an increase or a decrease in barriers. Paul Romer,<sup>6</sup> William Lewis,<sup>7</sup> and Harold L. Cole *et al.*<sup>8</sup> document large productivity increases following the elimination of barriers in a variety of industries and countries.

The theoretical support entails economic models that examine technology choices of firms. These theoretical models provide systematic explanations for the empirical finding that barriers give rise to the differences in TFP and income. For instance, when Edward Prescott and I inserted the bureaucratic cost estimates of Djankov *et al.* into such a theoretical model of technology adoption, we found that the model accurately predicted the current differences in TFP and living standards between the world's richest and poorest nations.

**Reasons for Barriers.** If constraints prevent firms from reaching a higher economic potential, why do societies put economic barriers in place, and why are they maintained? Industry and firm-level data suggest that these constraints often exist to protect specialized factor suppliers and corporate interests, which rightly or wrongly believe they will fail to benefit from the introduction of more productive technology.

Consider the following illustrative example, documented by Merritt Fox and Michael Heller, involving the Segezhabumpron Paper Mill, one of Russia's largest pulp and paper mills, located in Karelia, Russia. After acquiring a majority stake in the mill in the early 1990s, Assidoman of Sweden put forth a \$100 million modernization plan. The investment plan, however, raised the fear that jobs would be eliminated.

6 Paul Romer, "Two Strategies for Economic Development: Using Ideas and Producing Ideas," in Lawrence Summers and Shekhar Shah, eds., *Proceedings of the World Bank Annual Conference on Development Economics 1992* (Washington, D.C.: World Bank, 1993), pp. 63–91.

7 William Lewis, *The Power of Productivity: Wealth, Poverty, and the Threat of Global Stability* (Chicago: University of Chicago Press, 2004).

8 Harold L. Cole, Lee Ohanian, Alvaro Riascos, and James A. Schmitz, Jr., "Latin America in the Rearview Mirror," *Journal of Monetary Economics*, Vol. 52 (2004), pp. 69–107.

Because of this fear, the plant's employees and local government officials undertook a number of actions that effectively ran the Swedes out of town, including a judicial challenge on the legality of Assidoman's initial purchase of shares, threats of violence, and a refusal by the regional government, the minority owner of the mill, to provide the working capital needed to keep the plant open.<sup>9</sup>

## THE CHALLENGE OF ELIMINATING BARRIERS

Currently poor countries will catch up to the industrial leaders if existing constraints on efficient production are eliminated and an arrangement is set up to ensure that barriers will not be re-erected in the future. That is, the removal of constraints is a necessary condition for catching up to be possible. But this is easier said than done, because technological change does not benefit everyone equally in society. Some people lose, or at least believe that they will lose, since technological change may eliminate jobs and destroy economic rents. These groups will fiercely resist attempts to eliminate constraints in their industries.

What then, if anything, can be done? Despite the inherent problems with removing barriers, some societies have managed to do just that. To understand the specific circumstances under which barriers to efficient use of technology were successfully reduced, it is instructive to examine the record on catching up in greater depth.

### Successes

Several success stories of economic catching up exist. The United States, Western Europe, and parts of Asia provide some clear examples. In examining the experiences of these countries, Prescott and I came to the conclusion that the success of many countries is the result of being a free-trade club or a member of such a club. In our definition of a free-trade club, two conditions need to be met: Member states can-

not impose tariffs and other restrictions on the import of goods and services from other member states, and member states must have a considerable degree of economic sovereignty apart from the collective entity.

A free-trade club reduces both a group's ability and its incentive to obtain the government's support in erecting barriers. It reduces a group's ability because as no single state is able to block the movement of goods between states, and as the collective entity cannot block the adoption of a superior technology in one of its member states, a group wanting the barrier must lobby each individual state's government. This increases the cost of erecting the barrier. It reduces the group's incentive because, as the size of the market and the price elasticity of demand for an industry's product are increased, the adoption of a more productive technology results in larger percentage increases in industry revenues and output. This means that employment and earnings of factor suppliers are less likely to be adversely affected by the adoption of a more productive technology.

#### The United States and Western Europe.

The United States caught up with and surged past the United Kingdom in the 1865–1929 period because the United States was and continues to be a free-trade club. The individual state governments have a considerable degree of sovereign power over the federal government. Additionally, the Interstate Commerce Clause of the U.S. Constitution gives the federal government the right to regulate interstate commerce and prevent individual states from imposing tariffs and other restrictions on the import of goods and services.

Western Europe caught up with the United States in the 1973–1993 period because, with the creation of the European Union (EU), it became an equally important free-trade club. In fact, EU states enjoy even greater sovereignty than do U.S. member states. For instance, the German state cannot block Toyota's introduction of just-in-time production in Wales even though German politicians would do so if they could in response to domestic political pressure. If Toyota starts to gain market share, it

<sup>9</sup> Merritt B. Fox and Michael A. Heller, "Corporate Governance Lessons from Russian Enterprise Fiascos," *New York University Law Review*, Vol. 75 (2000), pp. 1720–1780.

will not be long before the auto industry throughout Europe adopts the superior technology and, as a consequence, productivity in the automobile industry increases. This is competition at work.

The positive effect of belonging to a free-trade club can be seen in the labor productivity of EU and non-EU countries over time. Table 2A reports labor productivity, defined as output per work hour, for the original members of what became the EU and the labor productivity of members that joined in the 1970s and

1980s. Productivities are reported for an extended period before the EU was formed as well as for the period subsequent to its creation.

One striking fact is that prior to forming the EU, the original members had labor productivity that was only half that of the United States. This state of affairs persisted for over 60 years with no catching up. However, in the 36 years after forming what became the EU, the countries that signed the Treaty of Rome caught up with the United States in terms of labor productivity. As Prescott demonstrates, the factor leading to this catching up was an increase in the efficiency with which resources were used in production, not changes in capital/output ratios.<sup>10</sup> EU countries that joined the union in 1973 also caught up significantly in terms of productivity subsequent to joining.

Perhaps even more striking is the comparison between the original EU members and the set of Western European countries that either joined in 1995 or still have not joined. This latter set, labeled “Others” in Table 2B, consists of Switzerland, Austria, Finland, and Sweden. The

<sup>10</sup> Edward C. Prescott, “Prosperity and Depression,” *American Economic Review*, Vol. 92, No. 2 (2002), pp. 1–15.

Table 2A

EU Labor Productivity		
Year	Original* EU Members (Percentage of U.S. Productivity)	Joined in 1973** (Percentage of U.S. Productivity)
1870	62%	-
1913	53%	-
1929	52%	-
1938	57%	-
1957	53%	57%
1973	78%	66%
1983	94%	76%
1993	102%	83%
2002	101%	85%

\* Belgium, France, Italy, Luxembourg, Netherlands, and Germany.  
 \*\* Ireland, United Kingdom, and Denmark.

Source: Stephen L. Parente and Edward C. Prescott, “What a Country Can Do to Catch Up to the Leader,” in Leszek Balcerowicz and Stanley Fischer, eds., *Living Standards and the Wealth of Nations: Successes and Failures in Real Convergence* (Cambridge, Mass.: MIT Press, 2006), pp. 17–40.

important finding is that the original EU countries and the “Others” were equally productive in the pre–World War II period. However, in the 36 years from 1957 to 1993, the “Others” fell from 1.06 times as productive as the original EU countries to only 0.81 as productive. This constitutes strong empirical evidence that membership in a free-trade club fosters higher productivity.

**Asia.** The reasons for catching up in Asia are slightly more varied than the reasons for Europe. Countries such as South Korea, Taiwan, and Japan were forced to adopt policies that did not block efficient production as a condition for support from the United States. The recent catching up by China, however, is primarily a result of its having become a free-trade club.

The rapid development of China began in 1978 when the Chinese government became more decentralized, with much of the centralized planning system dismantled. Although the central government gave more power to regional governments, it did not give them the right to restrict the flow of goods across regions. In fact, as Alwyn Young reports, when individual regions attempted to erect trade barriers in the late 1980s and early 1990s, the central government immediately took steps to restore the

free flow of goods and services.<sup>11</sup> The resulting competition between businesses in different Chinese provinces led to rapid growth in living standards.

## Failures

**Russia.** China's spectacular performance since its transition to capitalism stands in stark contrast to Russia's dismal performance since its transition to capitalism, going from 30 percent to 22 percent of U.S. income between 1985 and 1998. Unlike China, Russia does not belong to a free-trade club, as it remains economically isolated from Western Europe and its federation of states fails to comprise a free-trade club.

Local and regional governments in Russia have the power both to discriminate against producers from other member states operating within their borders and to restrict the flow of goods and people into and out of their regions. This power of local governments has been exercised quite frequently. They have, for example, prohibited exports of food goods from their regions and put in place price ceilings for many of those items. Additionally, they have used federal funds to subsidize inefficient producers in their regions and they have prevented the conversion of non-industrial structures for new commercial activity.

**Latin America.** Latin America has failed to catch up to the industrial leader, despite starting modern economic growth 100 years ago, because, like Russia, it has failed to develop into a free-trade club. There has been no free movement of goods and people between the set of relatively sovereign states.

The Washington Consensus, which is viewed by many participating countries as a failure, did not turn Latin America into a free-trade club. While the Washington Consensus did advocate liberalization and privatization as part of its 10-point plan, it did not bring about a significant reduction in barriers. According to the MGI, significant barriers still are in place in Brazil, for example. Furthermore, Sebastian

11 Alwyn Young, "The Razor's Edge: Distortions and Incremental Reform in the People's Republic of China," *Quarterly Journal of Economics*, Vol. 115 (2000), pp. 1091–1135.

Table 2B

## Labor Productivity of Other Western European Countries

Year	Other Countries* (Percentage of Original EU Members' Productivity)
1900	103%
1913	99%
1938	103%
1957	106%
1973	96%
1983	85%
1993	81%

\* Switzerland, Austria, Finland, and Sweden.

Source: Stephen L. Parente and Edward C. Prescott, "What a Country Can Do to Catch Up to the Leader," in Leszek Balcerowicz and Stanley Fischer, eds., *Living Standards and the Wealth of Nations: Successes and Failures in Real Convergence* (Cambridge, Mass.: MIT Press, 2006), pp. 17–40.

Etchemendy documents that in Argentina, the government had to grant special-interest groups certain privileges to obtain concessions.<sup>12</sup>

Moreover, recent political developments, most notably in Venezuela, Ecuador, Argentina, and Brazil, seem to bear out that Latin America's desire to reform and increase competition was not serious. Unless reforms are seen as being permanent in nature, firms will not make the necessary investments to adopt more productive technology.

## CONCLUSION

Will today's poor countries catch up with the industrial leaders, or will they forever lag behind? The answer is that *all* countries have the potential to become rich. Rapid catching up is possible; we have seen a number of countries do it in the past 50 years. China, for instance, is well on its way to becoming a rich industrialized country, and India is another country that has made important gains. Given that a third of the world's population lives in these two countries, their rapid economic success signals a

12 Sebastian Etchemendy, "Constructing Reform Coalitions: The Politics of Compensation in Argentina's Liberalization," *Latin American Politics and Society*, Vol. 43, No. 3 (2001), pp. 1–35.

positive future. The admission of 12 new countries to the European Union is another positive development.

Yet the recent surge in anti-globalization and anti-trade sentiment and the return to state-owned enterprises in some countries are reasons to doubt that many nations will eliminate the gaps between themselves and the leaders any time soon. Regrettably, special-interest groups in numerous countries have succeeded in convincing the larger populace that greater integration in the world economy will make the national economy worse off.

There is absolutely no empirical support for this belief. On the contrary, empirical evidence

supports integration as well as elimination of barriers as a way for rapid economic growth to occur in today's world. Allowing barriers in the form of work rules, zoning laws, government subsidies, international trade quotas, and other policies and regulations means continued unacceptable living standards for large numbers of people and ultimately a more divided and unequal world.

To eliminate such disparate relationships, poor countries need to embrace international competition in business and trade. As a first step toward this goal, unnecessary barriers that constrain technology and production processes need to be eliminated. Only then can all nations have the opportunity to flourish.