



CHAPTER 10

Trade Policy in Developing Countries

So far we have analyzed the instruments of trade policy and its objectives without specifying the context—that is, without saying much about the country undertaking these policies. Each country has its own distinctive history and issues, but in discussing economic policy one difference between countries becomes obvious: their income levels. As Table 10-1 suggests, nations differ greatly in their per-capita incomes. At one end of the spectrum are the developed or advanced nations, a club whose members include Western Europe, several countries largely settled by Europeans (including the United States), and Japan; these countries have per-capita incomes that in many cases exceed \$30,000 per year. Most of the world’s population, however, live in nations that are substantially poorer. The income range among these **developing countries**¹ is itself very wide. Some of these countries, such as Singapore, are in fact on the verge of being “graduated” to advanced country status, both in terms of official statistics and in the way they think about themselves. Others, such as Bangladesh, remain desperately poor. Nonetheless, for virtually all developing countries the attempt to close the income gap with more advanced nations has been a central concern of economic policy.

Why are some countries so much poorer than others? Why have some countries that were poor a generation ago succeeded in making dramatic progress, while others have not? These are deeply disputed questions, and to try to answer them—or even to describe at length the answers that economists have proposed over the years—would take us outside the scope of this book. What we can say, however, is that changing views about economic development have had a major role in determining trade policy.

For about 30 years after World War II, trade policies in many developing countries were strongly influenced by the belief that the key to economic development was creation of a strong manufacturing sector, and that the best way to create that manufacturing sector was by protecting domestic manufacturers from international

¹*Developing country* is a term used by international organizations that has now become standard, even though some “developing” countries have had declining living standards for a decade or more. A more descriptive but less polite term is *less-developed countries* (LDCs).

TABLE 10-1 Gross Domestic Product Per Capita, 2005 (dollars)	
United States	41,899
Japan	35,484
Germany	33,890
Singapore	26,877
South Korea	16,387
Mexico	7,447
China	1,720
India	736
Source: World Bank.	

competition. The first part of this chapter describes the rationale for this strategy of import-substituting industrialization, as well as the critiques of that strategy that became increasingly common after about 1970, and the emergence in the late 1980s of a new conventional wisdom that stressed the virtues of free trade.

Finally, while economists have debated the reasons for persistent large income gaps between nations, since the mid-1960s a widening group of East Asian nations has astonished the world by achieving spectacular rates of economic growth. The third part of this chapter is devoted to the interpretation of this “East Asian miracle,” and its (much disputed) implications for international trade policy.

Learning Goals

After reading this chapter, you will be able to:

- Recapitulate the case for protectionism as it has been historically practiced in developing countries, and discuss import-substitution-led industrialization and the “infant industry” argument.
- Summarize the basic ideas behind “economic dualism” and its relationship to international trade.
- Discuss the recent economic history of the East Asian countries, such as Taiwan and South Korea, and detail the relationship between their rapid economic growth and participation in international trade.

Import-Substituting Industrialization

From World War II until the 1970s many developing countries attempted to accelerate their development by limiting imports of manufactured goods to foster a manufacturing sector serving the domestic market. This strategy became popular for a number of reasons, but theoretical economic arguments for import substitution played an important role in its rise. Probably the most important of these arguments was the *infant industry argument*, which we mentioned in Chapter 6.

The Infant Industry Argument

According to the infant industry argument, developing countries have a *potential* comparative advantage in manufacturing, but new manufacturing industries in developing countries cannot initially compete with well-established manufacturing in developed countries. To allow manufacturing to get a toehold, governments should temporarily support new industries, until they have grown strong enough to meet international competition. Thus it makes sense, according to this argument, to use tariffs or import quotas as temporary measures to get industrialization started. It is a historical fact that the world's three largest market economies all began their industrialization behind trade barriers: The United States and Germany had high tariff rates on manufacturing in the 19th century, while Japan had extensive import controls until the 1970s.

Problems with the Infant Industry Argument The infant industry argument seems highly plausible, and in fact it has been persuasive to many governments. Yet economists have pointed out many pitfalls in the argument, suggesting that it must be used cautiously.

First, it is not always good to try to move today into the industries that will have a comparative advantage in the future. Suppose that a country that is currently labor-abundant is in the process of accumulating capital: When it accumulates enough capital, it will have a comparative advantage in capital-intensive industries. That does not mean it should try to develop these industries immediately. In the 1980s, for example, South Korea became an exporter of automobiles; it would probably not have been a good idea for South Korea to have tried to develop its auto industry in the 1960s, when capital and skilled labor were still very scarce.

Second, protecting manufacturing does no good unless the protection itself helps make industry competitive. Pakistan and India have protected their manufacturing sectors for decades and have recently begun to develop significant exports of manufactured goods. The goods they export, however, are light manufactures like textiles, not the heavy manufactures that they protected; a good case can be made that they would have developed their manufactured exports even if they had never protected manufacturing. Some economists have warned of the case of the "pseudoinfant industry," where industry is initially protected, then becomes competitive for reasons that have nothing to do with the protection. In this case infant industry protection ends up looking like a success but may actually have been a net cost to the economy.

More generally, the fact that it is costly and time-consuming to build up an industry is not an argument for government intervention unless there is some domestic market failure. If an industry is supposed to be able to earn high enough returns for capital, labor, and other factors of production to be worth developing, then why don't private investors develop the industry without government help? Sometimes it is argued that private investors take into account only the current returns in an industry and fail to take account of the future prospects, but this is not consistent with market behavior. In advanced countries at least, investors often back projects whose returns are uncertain and lie far in the future. (Consider, for example, the U.S. biotechnology industry, which attracted hundreds of millions of dollars of capital years before it made even a single commercial sale.)

Market Failure Justifications for Infant Industry Protection To justify the infant industry argument, it is necessary to go beyond the plausible but questionable view that industries always need to be sheltered when they are new. Whether infant industry protection is justified depends on an analysis of the kind we discussed in Chapter 9. That is, the argument for protecting an industry in its early growth must be related to some particular

set of market failures that prevent private markets from developing the industry as rapidly as they should. Sophisticated proponents of the infant industry argument have identified two market failures as reasons why infant industry protection may be a good idea: **imperfect capital markets** and the problem of **appropriability**.

The *imperfect capital markets justification* for infant industry protection is as follows. If a developing country does not have a set of financial institutions (such as efficient stock markets and banks) that would allow savings from traditional sectors (such as agriculture) to be used to finance investment in new sectors (such as manufacturing), then growth of new industries will be restricted by the ability of firms in these industries to earn current profits. Thus low initial profits will be an obstacle to investment even if the long-term returns on this investment are high. The first-best policy is to create a better capital market, but protection of new industries, which would raise profits and thus allow more rapid growth, can be justified as a second-best policy option.

The *appropriability argument* for infant industry protection can take many forms, but all have in common the idea that firms in a new industry generate social benefits for which they are not compensated. For example, the firms that first enter an industry may have to incur “start-up” costs of adapting technology to local circumstances or of opening new markets. If other firms are able to follow their lead without incurring these start-up costs, the pioneers will be prevented from reaping any returns from these outlays. Thus, pioneering firms may, in addition to producing physical output, create intangible benefits (such as knowledge or new markets) in which they are unable to establish property rights. In some cases the social benefits from creation of a new industry will exceed its costs, yet because of the problem of appropriability no private entrepreneurs will be willing to enter. The first-best answer is to compensate firms for their intangible contributions. When this is not possible, however, there is a second-best case for encouraging entry into a new industry by using tariffs or other trade policies.

Both the imperfect capital markets argument and the appropriability case for infant industry protection are clearly special cases of the *market failures* justification for interfering with free trade. The difference is that in this case the arguments apply specifically to new industries rather than to any industry. The general problems with the market failure approach remain, however. In practice it is difficult to evaluate which industries really warrant special treatment, and there are risks that a policy intended to promote development will end up being captured by special interests. There are many stories of infant industries that have never grown up and remain dependent on protection.

Promoting Manufacturing Through Protection

Although there are doubts about the infant industry argument, many developing countries have seen this argument as a compelling reason to provide special support for the development of manufacturing industries. In principle such support could be provided in a variety of ways. For example, countries could provide subsidies to manufacturing production in general, or they could focus their efforts on subsidies for the export of some manufactured goods in which they believe they can develop a comparative advantage. In most developing countries, however, the basic strategy for industrialization has been to develop industries oriented toward the domestic market by using trade restrictions such as tariffs and quotas to encourage the replacement of imported manufactures by domestic products. The strategy of encouraging domestic industry by limiting imports of manufactured goods is known as the strategy of **import-substituting industrialization**.

One might ask why a choice needs to be made. Why not encourage both import substitution and exports? The answer goes back to the general equilibrium analysis of tariffs in

Chapter 5: A tariff that reduces imports also necessarily reduces exports. By protecting import-substituting industries, countries draw resources away from actual or potential export sectors. So a country's choice to seek to substitute for imports is also a choice to discourage export growth.

The reasons why import substitution rather than export growth has usually been chosen as an industrialization strategy are a mixture of economics and politics. First, until the 1970s many developing countries were skeptical about the possibility of exporting manufactured goods (although this skepticism also calls into question the infant industry argument for manufacturing protection). They believed that industrialization was necessarily based on a substitution of domestic industry for imports rather than on a growth of manufactured exports. Second, in many cases import-substituting industrialization policies dovetailed naturally with existing political biases. We have already noted the case of Latin American nations that were compelled to develop substitutes for imports during the 1930s because of the Great Depression and during the first half of the 1940s because of the wartime disruption of trade (Chapter 9). In these countries import substitution directly benefited powerful, established interest groups, while export promotion had no natural constituency.

It is also worth pointing out that some advocates of a policy of import substitution believed that the world economy was rigged against new entrants, that the advantages of established industrial nations were simply too great to be overcome by newly industrializing economies. Extreme proponents of this view called for a general policy of delinking developing countries from advanced nations; but even among milder advocates of protectionist development strategies the view that the international economic system systematically works against the interests of developing countries remained common until the 1980s.

The 1950s and 1960s saw the high tide of import-substituting industrialization. Developing countries typically began by protecting final stages of industry, such as food processing and automobile assembly. In the larger developing countries, domestic products almost completely replaced imported consumer goods (although the manufacturing was often carried out by foreign multinational firms). Once the possibilities for replacing consumer goods imports had been exhausted, these countries turned to protection of intermediate goods, such as automobile bodies, steel, and petrochemicals.

In most developing economies, the import-substitution drive stopped short of its logical limit: Sophisticated manufactured goods such as computers, precision machine tools, and so on continued to be imported. Nonetheless, the larger countries pursuing import-substituting industrialization reduced their imports to remarkably low levels. The most extreme case was India: In the early 1970s, India's imports other than oil were only about 3 percent of GDP.

As a strategy for encouraging growth of manufacturing, import-substituting industrialization clearly worked. Latin American economies began generating almost as large a share of their output from manufacturing as advanced nations. (India generated less, but only because its poorer population continued to spend a high proportion of its income on food.) For these countries, however, the encouragement of manufacturing was not a goal in itself; it was a means to the end goal of economic development. Did import-substituting industrialization promote economic development? Here serious doubts appeared. Although many economists approved of import-substitution measures in the 1950s and early 1960s, since the 1960s import-substituting industrialization has come under increasingly harsh criticism. Indeed, much of the focus of economic analysts and of policymakers has shifted from trying to encourage import substitution to trying to correct the damage done by bad import-substitution policies.

Case Study

Mexico Abandons Import-Substituting Industrialization

In 1994 Mexico, along with Canada and the United States, signed the North American Free Trade Agreement—an agreement that, as we explain in Chapter 11, has become highly controversial. But Mexico's turn from import-substituting industrialization to relatively free trade actually began almost a decade before the country joined NAFTA.

Mexico's turn toward free trade reversed a half-century of history. Like many developing countries, Mexico turned protectionist during the Great Depression of the 1930s. After World War II, the policy of industrialization to serve a protected domestic market became explicit. Throughout the '50s and '60s, trade barriers were raised higher, as Mexican industry became increasingly self-sufficient. By the 1970s, Mexico had largely restricted imports of manufactured goods to such items as sophisticated machinery that could not be produced domestically except at prohibitive cost.

Mexican industry produced very little for export; the country's foreign earnings came largely from oil and tourism, with the only significant manufacturing exports coming from *maquiladoras*, special factories located near the U.S. border that were exempt from some trade restrictions.

By the late 1970s, however, Mexico was experiencing economic difficulties, including rising inflation and growing foreign debt. The problems came to a head in 1982, when the country found itself unable to make full payments on its foreign debt. This led to a prolonged economic crisis—and to a radical change in policy.

Between 1985 and 1988, Mexico drastically reduced tariffs and removed most of the import quotas that had previously protected its industry. The new goal of policy was to make Mexico a major exporter of manufactured goods, closely integrated with the U.S. economy. The coming of NAFTA in the 1990s did little to reduce trade barriers, because Mexico had already done the heavy lifting of trade liberalization in the 1980s. NAFTA did, however, assure investors that the change in policy would not be reversed.

So how did the policy change work? Exports did indeed boom. In 1980, Mexican exports were only 12.7 percent of GDP—and much of that was oil. By 2005, exports were up to 29.9 percent of GDP, primarily manufactures. Today, Mexican manufacturing, rather than being devoted to serving the small domestic market, is very much part of an integrated North American manufacturing system.

The results for the overall Mexican economy have, however, been somewhat disappointing. Per capita income has risen over the past 20 years, but the rate of growth has actually been lower than that achieved when Mexico was pursuing a policy of import-substituting industrialization.

Does this mean that trade liberalization was a mistake? Not necessarily. Most (but not all) economists who have looked at Mexican performance blame relatively low growth on such factors as poor education. But the fact is that Mexico's turn away from import substitution, while highly successful at making Mexico an exporting nation, has not delivered as much as hoped in terms of broader economic progress.

Results of Favoring Manufacturing: Problems of Import-Substituting Industrialization

Import-substituting industrialization began to lose favor when it became clear that countries pursuing import substitution were not catching up with advanced countries. In fact, some countries lagged further behind advanced countries even as they developed a domestic manufacturing base. India was poorer relative to the United States in 1980 than it had been in 1950, the first year after it achieved independence.

Why didn't import-substituting industrialization work the way it was supposed to? The most important reason seems to be that the infant industry argument was not as universally valid as many people assumed. A period of protection will not create a competitive manufacturing sector if there are fundamental reasons why a country lacks a comparative advantage in manufacturing. Experience has shown that the reasons for failure to develop often run deeper than a simple lack of experience with manufacturing. Poor countries lack skilled labor, entrepreneurs, and managerial competence and have problems of social organization that make it difficult to maintain reliable supplies of everything from spare parts to electricity. These problems may not be beyond the reach of economic policy, but they cannot be solved by *trade* policy: An import quota can allow an inefficient manufacturing sector to survive, but it cannot directly make that sector more efficient. The infant industry argument is that, given the temporary shelter of tariffs or quotas, the manufacturing industries of less-developed nations will learn to be efficient. In practice, this is not always, or even usually, true.

With import substitution failing to deliver the promised benefits, attention turned to the costs of the policies used to promote industry. On this issue, a growing body of evidence showed that the protectionist policies of many less-developed countries badly distorted incentives. Part of the problem was that many countries used excessively complex methods to promote their infant industries. That is, they used elaborate and often overlapping import quotas, exchange controls, and domestic content rules instead of simple tariffs. It is often difficult to determine how much protection an administrative regulation is actually providing, and studies show that the degree of protection is often both higher and more variable across industries than the government intended. As Table 10-2 shows, some industries in Latin America and South Asia were protected by regulations that were the equivalent of tariff rates of 200 percent or more. These high rates of effective protection allowed industries to exist even when their cost of production was three or four times the price of the imports they replaced. Even the most enthusiastic advocates of market failure arguments for protection find rates of effective protection that high difficult to defend.

TABLE 10-2 Effective Protection of Manufacturing in Some Developing Countries (percent)

Mexico (1960)	26
Philippines (1965)	61
Brazil (1966)	113
Chile (1961)	182
Pakistan (1963)	271

Source: Bela Balassa, *The Structure of Protection in Developing Countries*, 82. (Baltimore: Johns Hopkins Press, 1971).

A further cost that has received considerable attention is the tendency of import restrictions to promote production at an inefficiently small scale. The domestic markets of even the largest developing countries are only a small fraction of the size of that of the United States or the European Union. Often, the whole domestic market is not large enough to allow an efficient-scale production facility. Yet when this small market is protected, say, by an import quota, if only a single firm were to enter the market it could earn monopoly profits. The competition for these profits typically leads several firms to enter a market that does not really even have room enough for one, and production is carried out at highly inefficient scale. The answer for small countries to the problem of scale is, as noted in Chapter 6, to specialize in the production and export of a limited range of products and to import other goods. Import-substituting industrialization eliminates this option by focusing industrial production on the domestic market.

Those who criticize import-substituting industrialization also argue that it has aggravated other problems, such as income inequality and unemployment.

By the late 1980s, the critique of import-substituting industrialization had been widely accepted, not only by economists but by international organizations like the World Bank and even by policymakers in the developing countries themselves. Statistical evidence appeared to suggest that developing countries that followed relatively free trade policies had on average grown more rapidly than those that followed protectionist policies (although this statistical evidence has been challenged by some economists).² This intellectual sea change led to a considerable shift in actual policies, as many developing countries removed import quotas and lowered tariff rates.

Trade Liberalization Since 1985

Beginning in the mid-1980s, a number of developing countries moved to lower tariff rates and removed import quotas and other restrictions on trade. The shift of developing countries toward freer trade is arguably the big trade policy story of the past two decades.

After 1985 many developing countries reduced tariffs, removed import quotas, and in general opened their economies to import competition. Table 10-3 shows the changes in policy that occurred in two countries, India and Brazil, that once relied heavily on import substitution as a development strategy. Both had very highly protected industrial sectors in 1985.

	India	Brazil
Late 1980s	126	77
Late 1990s	40	19

Sources: Marcelo de Paiva Abreu, "Trade Liberalization and the Political Economy of Brazil Since 1987," Working Paper, Inter-American Development Bank, 2004; Dani Rodrik and Arvind Subramian, "From 'Hindu Growth' to Productivity Surge: The Mystery of the Indian Growth Transition," International Monetary Fund Working Paper, 2002.

²See Francisco Rodriguez and Dani Rodrik, "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence," in Ben Bernanke and Kenneth S. Rogoff, eds., *NBER Macroeconomics Annual 2000*. Cambridge, MA: MIT Press for NBER, 2001.

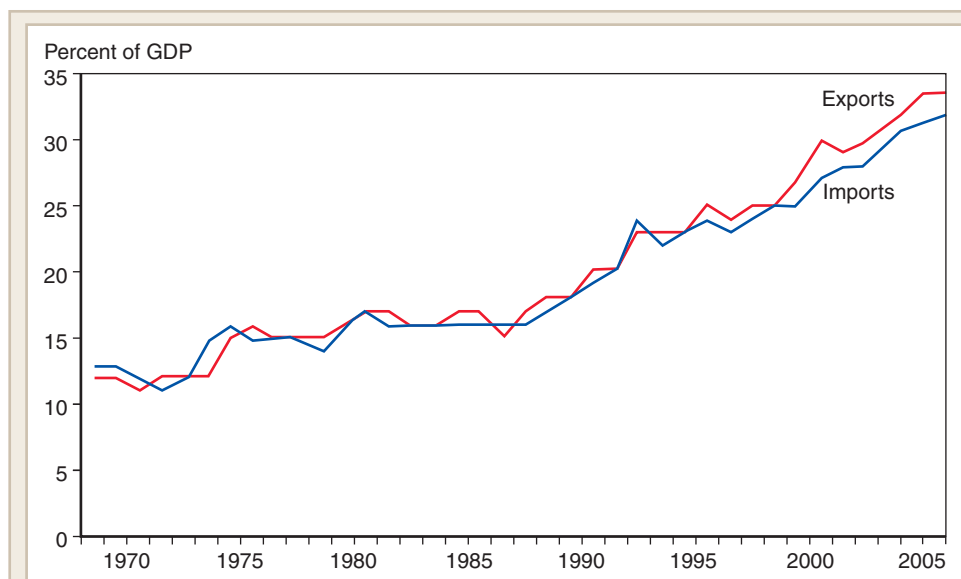


Figure 10-1
The Growth of Developing-Country Trade

Liberalization and developing-country trade: Trade liberalization after 1985 led to a surge in both imports and exports as a percentage of GDP.

Source: World Bank.

But both drastically reduced their effective rates of protection on manufacturing over the next decade. Similar if less drastic changes in trade policy took place in many developing countries.

Trade liberalization in developing countries had two clear effects. One was a dramatic increase in the volume of trade. Figure 10-1 plots exports and imports of developing countries, measured as percentages of GDP, since 1968. After showing little upward trend until the 1980s—in contrast to the rising share of trade in GDP experienced by the United States—developing countries experienced a rough doubling in trade shares after the wave of liberalization began.

The other effect was a change in the nature of trade. Before the change in trade policy, developing countries mainly exported agricultural and mining products. But as we saw in Figure 2-6, that changed after 1980: The share of manufactured goods in developing-country exports surged, coming to dominate the exports of the biggest developing economies.

But trade liberalization, like import substitution, was intended as a means to an end rather than a goal in itself. As we've seen, import substitution fell out of favor as it became clear that it was not delivering on its promise of rapid economic development. Has the switch to more open trade delivered better results?

The answer is that the picture is at best mixed. Growth rates in Brazil and other Latin American countries have actually been slower since the trade liberalization of the late 1980s than they were during import-substituting industrialization. India has experienced an impressive acceleration of growth—but skeptical economists point out that the acceleration seems to have begun before the major trade liberalization took place.

In addition, there is growing concern about rising inequality in developing countries. In Latin America at least, the switch away from import-substituting industrialization seems to have been associated with declining real wages for blue-collar workers, even as earnings of highly skilled workers rose.

Export-Oriented Industrialization: The East Asian Miracle

As pointed out previously, in the 1950s and 1960s it was widely believed that developing countries could create industrial bases only by substituting domestic manufactured goods for imports. From the mid-1960s onward, however, it became increasingly apparent that there was another possible path to industrialization: via *exports* of manufactured goods, primarily to advanced nations. Moreover, the countries that developed in this manner—a group that the World Bank now refers to as the **high performance Asian economies (HPAEs)**³—achieved spectacular economic growth, in some cases at more than 10 percent per year. The economies of the HPAEs were severely affected by the financial crisis that began in 1997; nonetheless, their achievements up to that point were remarkable.

While the achievement of the HPAEs is not in doubt, and while there is also no question that their success refutes the previous conventional wisdom that industrial development must take place via import substitution, there remain major controversies about the implications of the “East Asian miracle.” In particular, different observers place very different interpretations on the role of government policies, including trade policy, in fostering economic growth. To some observers the success of Asian economies demonstrates the virtues of relatively free trade and a hands-off government policy; to others it demonstrates the effectiveness of sophisticated government intervention; and there are some economists who believe that trade and industrial policy made little difference either way.

The Facts of Asian Growth

The World Bank’s definition of HPAEs contains three groups of countries, whose “miracles” began at different times. First is Japan, which began rapid economic growth soon after World War II and now has per-capita income comparable to the United States and Western Europe; we will leave the discussion of Japanese experience to Chapter 11, which presents trade and industrial policy in advanced countries. In the 1960s rapid economic growth began in four smaller Asian economies, often known as the four “tigers”: Hong Kong, Taiwan, South Korea, and Singapore.⁴ Finally, in the late 1970s and the 1980s rapid growth began in Malaysia, Thailand, Indonesia, and, most spectacularly, in China.

Each group achieved very high growth rates. Real gross domestic product in the “tiger” economies grew at an average of 8–9 percent from the mid-1960s until the 1997 Asian crisis, compared with 2–3 percent in the United States and Western Europe. Recent growth rates in the other Asian economies have been comparable, and China has reported growth rates of more than 10 percent (although there are some questions about the accuracy of Chinese statistics).

³For an extremely useful survey of the growth of the HPAEs, see World Bank, *The East Asian Miracle: Economic Growth and Public Policy*. (Oxford: Oxford University Press, 1993).

⁴The political status of two of the tigers is confusing. Hong Kong was a British colony during its takeoff, but reverted to Chinese control in 1997. The treaty returning Hong Kong to China states that the city will retain its social and economic institutions, i.e., remain a free-market economy, but many observers are skeptical. Taiwan is a de facto independent nation claimed by China that has avoided explicitly claiming independence to avoid provoking its powerful neighbor. The World Bank tiptoes around the issue by referring pedantically to “Taiwan, China.”

In addition to their very high growth rates, the HPAEs have another distinguishing feature: They are very open to international trade and have become more so over time. In fact, the rapidly growing Asian economies are much more export oriented than other developing countries, particularly in Latin America and South Asia. Exports as a share of gross domestic product for several of the HPAEs are remarkably high, in the case of both Singapore and Hong Kong exceeding 100 percent of GDP. How is it possible for a country's exports to exceed its total output? Gross domestic product represents the value *added* by an economy, not the total sales. For example, when a clothing factory in Hong Kong assembles cloth woven elsewhere into a suit, the addition to GDP is only the difference between the cost of the cloth and the value of the suit, not the whole price of the suit. But if the suit is exported, its full price counts as part of the export total. Because modern manufacturing often consists of adding a relatively small amount of value to imported inputs, exports can easily exceed total national output.

The undisputed facts, then, are that a group of Asian economies achieved high rates of economic growth and did so via a process that involves rapid growth of exports rather than substitution of domestic production for imports. But what does their experience say about economic policy?

Trade Policy in the HPAEs

Some economists have tried to tell a simple story that attributes the success of East Asian economies to an “outward-oriented” trade policy. In this view, the high ratios of exports and imports to GDP in Asian nations are the consequences of trade policies that, while they might not correspond precisely to free trade, nonetheless leave trade much freer than in developing countries that have tried to develop through import substitution. And high growth rates are the payoff to this relatively open trade regime.

Unfortunately, the evidence for this story is not as strong as its advocates would like. In the first place, it is unclear to what extent the high trade ratios in the HPAEs can really be attributed to free trade policies. With the exception of Hong Kong, the HPAEs have in fact not had anything very close to free trade: All of them continue to have fairly substantial tariffs, import quotas, export subsidies, and other policies that manage their trade. Are the HPAEs following policies that are closer to free trade than those of other developing countries? Probably, although the complexity of the trade policies followed by developing countries in general makes comparisons difficult.⁵ Table 10-4 shows data assembled by the World Bank, comparing average rates of protection (tariffs plus the tariff equivalent of import quotas) for several groups of developing countries: The data do suggest that the HPAEs have been less protectionist than other, less successful developing countries, although they have by no means followed a policy of complete free trade.

TABLE 10-4 Average Rates of Protection, 1985 (percent)

High performance Asian economies	24
Other Asia	42
South America	46
Sub-Saharan Africa	34

Source: World Bank. *The East Asian Miracle: Economic Growth and Public Policy* (Oxford: Oxford University Press, 1993), p. 300.

⁵ See World Bank, *The East Asian Miracle*, Chapter 6, for some attempts at international comparisons of protection.

India's Boom

India, with a population of more than 1.1 billion people, is the world's second-most populous country. It's also a growing force in world trade—especially in new forms of trade that involve trade in information rather than in physical goods. The Indian city of Bangalore has become famous for its growing role in the global information technology industry.

Yet a generation ago India was a very minor player in world trade. In part this was because the country's economy performed poorly in general: Until about 1980, India eked out a rate of economic growth—sometimes mocked as the “Hindu rate of growth”—that was only about 1 percentage point higher than productivity growth.

And India's sluggish economy did little participation in world trade. After the country achieved independence in 1948, its leaders adopted a particularly extreme form of import-substituting industrialization as their development strategy. India imported almost nothing that it could produce domestically, even if the domestic product was far more expensive and of lower quality than what could be bought abroad. High costs, in turn, crimped exports. So India was a very “closed” economy. In the 1970s, imports and exports averaged only about 5 percent of GDP, close to the lowest levels of any major nation.

Then everything changed. India's growth accelerated dramatically: GDP per capita, which rose at an annual rate of only 1.3 percent from 1960 to 1980, has grown at close to 4 percent annually since 1980. And India's participation in world trade surged as tariffs were brought down and import quotas were removed. By 2005, exports and imports were 20.3 and 23.3 percent of GDP, respectively.

In short, India has become a high-performance economy. It's still a very poor country, but it is rapidly growing richer and has begun to rival China as a focus of world attention.

The big question, of course, is why India's growth rate has increased so dramatically. That question is the subject of heated debate among economists. Some economists have argued that trade liberalization, which allowed India to participate in the global economy, was crucial.¹ Other economists point out that India's growth began accelerating around 1980, while the big changes in trade policy didn't occur until the beginning of the 1990s.²

Whatever caused the change, India's transition has been a welcome development. More than a billion people now have much greater hope for a decent standard of living.

¹See Arvind Panagariya, “The triumph of India's market reforms: The record of the 1980s and 1990s,” Cato Institute Policy Analysis, no. 554.

²See Dani Rodrik and Arvind Subramanian, “From Hindu growth to productivity surge: The mystery of the Indian growth transition.” International Monetary Fund Working Paper WP/04/77.

While trade policy has thus contributed to the openness of the HPAEs, however, most economists who have studied these economies believe that their high trade ratios are as much an effect as a cause of their economic success. For example, both the exports and the imports of Thailand soared in the 1990s. Why? Because the country became a favorite production site for multinational companies. These companies directly generated most of the new exports, and their imports of raw material also accounted for much of the surge in imports; the rest is accounted for by the rising income of the Thai population. So Thailand had large imports and exports because it was doing well, not the other way around.

This conclusion means that while there is a *correlation* between rapid growth in exports and rapid overall economic growth, the correlation does not necessarily demonstrate that free trade policies have been the main reason for the high growth. Instead, most economists who have studied the issue now believe that while the relatively low rates of protection in the HPAEs helped them to grow, they are only a partial explanation of the “miracle.”

Industrial Policy in the HPAEs

Some commentators believe that the success of the HPAEs, far from demonstrating the effectiveness of free trade policies, actually represents a payoff to sophisticated interventionism.⁶ It is in fact the case that several of the highly successful economies have pursued policies that favor particular industries over others; such *industrial policies* included not only tariffs, import restrictions, and export subsidies, but also more complex policies such as low-interest loans and government support for research and development.

The assessment of industrial policies is, in general, quite difficult; we will discuss this issue at some length in Chapter 11. Here, we just need to note that most economists studying this issue have been skeptical about the importance of such policies, for at least three reasons.

First, HPAEs have followed a wide variety of policies, ranging from detailed government direction of the economy in Singapore to virtual *laissez-faire* in Hong Kong. South Korea deliberately promoted the formation of very large industrial firms; Taiwan's economy remains dominated by small, family-run companies. Yet all of these economies have achieved similarly high growth rates.

Second, despite considerable publicity given to industrial policies, the actual impact on industrial structure may not have been large. The World Bank, in its study of the Asian miracle, found surprisingly little evidence that countries with explicit industrial policies have moved into the targeted industries any faster than those which have not.

Finally, there have been some notable failures of industrial policy even in otherwise highly successful economies. For example, from 1973 to 1979 South Korea followed a policy of promoting "heavy and chemical" industries, chemicals, steel, automobiles, and so on. This policy proved extremely costly, and was eventually judged to be premature and was abandoned.

While it is probably fair to say that the mainstream position is that industrial policy was not a key driving force behind Asian success, this is by no means a settled debate, and the attempt to assess the impact of industrial policies remains a major area of research.

Other Factors in Growth

Many students suggest that the whole focus on trade and industrial policy in Asian growth may have been misplaced. After all, international trade and trade policy are only part of the story for any economy, even one with a high ratio of exports to national income. Other aspects of the economy may well have been more important determinants of success.

And in fact, the fast-growing Asian economies are distinctive in ways other than their high trade shares. Almost all of these economies, it turns out, have very high savings rates, which means that they are able to finance very high rates of investment. Almost all of them have also made great strides in public education. Several estimates suggest that the combination of high investment rates and rapidly improving educational levels explains a large fraction, perhaps almost all, of the rapid growth in East Asia.⁷ If this is true, the whole focus on trade and industrial policy is largely misplaced. Perhaps one can argue that the

⁶For the most part, commentators who believe that rapid growth in the HPAEs is due to aggressive government intervention are not trained economists; indeed, the whole debate over the sources of Asian growth is tied up with a broader and quite acrimonious debate over the usefulness of economic theory in general. For an influential example both of the claim that Asian growth was fostered by interventionist policies, and of hostility to economists, see James Fallows, *Looking at the Sun: The Rise of the New East Asian Economic and Political System* (New York: Pantheon, 1994.)

⁷For a summary of this research and its implications, see Paul Krugman, "The Myth of Asia's Miracle," *Foreign Affairs* (November 1994).

Asian economies have had trade policy that is good in the sense that it has *permitted* rapid growth, but it is greatly overstating the importance of that policy to say that it *caused* growth.

Like almost everything that concerns Asian growth, this interpretation is highly controversial. Nonetheless, it has helped shake the certainties of all sides in the ongoing debate.

One thing is, however, certain about the East Asian experience. Whatever else one may say about it, it definitely refutes some assumptions about economic development that used to be widely accepted. First, the presumption that industrialization and development must be based on an inward-looking strategy of import substitution is clearly false. On the contrary, the success stories of development have all involved an outward-looking industrialization based on exports of manufactured goods. Second, the pessimistic view that the world market is rigged against new entrants, preventing poor countries from becoming rich, has turned out to be spectacularly wrong: Never in human history have so many people seen their standard of living rise so rapidly.

SUMMARY

1. Trade policy in less-developed countries can be analyzed using the same analytical tools used to discuss advanced countries. The particular issues characteristic of *developing countries* are, however, different. In particular, trade policy in developing countries is concerned with two objectives: promoting industrialization and coping with the uneven development of the domestic economy.
2. Government policy to promote industrialization has often been justified by the infant industry argument, which says that new industries need a temporary period of protection from competition from established competitors in other countries. The infant industry argument is valid only if it can be cast as a market failure argument for intervention. Two usual justifications are the existence of *imperfect capital markets* and the problem of *appropriability* of knowledge generated by pioneering firms.
3. Using the infant industry argument as justification, many less-developed countries have pursued policies of *import-substituting industrialization* in which domestic industries are created under the protection of tariffs or import quotas. Although these policies have succeeded in promoting manufacturing, by and large they have not delivered the expected gains in economic growth and living standards. Many economists are now harshly critical of the results of import substitution, arguing that it has fostered high-cost, inefficient production.
4. Beginning about 1985, many developing countries, dissatisfied with the results of import-substitution policies, greatly reduced rates of protection for manufacturing. As a result, developing-country trade grew rapidly, and the share of manufactured goods in exports rose. The results of this policy change in terms of economic development, however, have been at best mixed.
5. The view that economic development must take place via import substitution—and the pessimism about economic development that spread as import-substituting industrialization seemed to fail—have been confounded by the rapid economic growth of a number of Asian economies. These high performance Asian economies (HPAEs) have industrialized not via import substitution but via exports of manufactured goods. They are characterized both by very high ratios of trade to national income and by extremely high growth rates. The reasons for the success of the HPAs are highly disputed. Some observers point to the fact that, while they do not

practice free trade, they do have lower rates of protection than other developing countries. Others assign a key role to the interventionist industrial policies pursued by some of the HPAEs. Recent research suggests, however, that the roots of success may lie largely in domestic causes, especially high savings rates and rapid improvements in education.

KEY TERMS

appropriability, p. 253

developing countries, p. 250

high performance Asian economies (HPAEs), p. 259

imperfect capital markets, p. 253

import-substituting industrialization, p. 253

PROBLEMS



1. Which countries appear to have most benefited from international trade during the last few decades? What policies do these countries seem to have in common? Does their experience lend support to the infant industry argument or help to argue against it?¹
2. “Japan’s experience makes the infant industry case for protection better than any theory. In the early 1950s Japan was a poor nation that survived by exporting textiles and toys. The Japanese government protected what at first were inefficient, high-cost steel and automobile industries, and those industries came to dominate world markets.” Discuss critically.
3. A country currently imports automobiles at \$8,000 each. Its government believes domestic producers could manufacture autos for only \$6,000 given time but that there would be an initial shakedown period during which autos would cost \$10,000 to produce domestically.
 - a. Suppose that each firm that tries to produce autos must go through the shakedown period of high costs on its own. Under what circumstances would the existence of the initial high costs justify infant industry protection?
 - b. Now suppose, on the contrary, that once one firm has borne the costs of learning to produce autos at \$6,000 each, other firms can imitate it and do the same. Explain how this can prevent development of a domestic industry and how infant industry protection can help.
4. India and Mexico both followed import-substitution policies after World War II. However, India went much further, producing almost everything for itself, while Mexico continued to rely on imports of capital goods. Why do you think this difference may have emerged?
5. What were some of the reasons for the decline in the import-substituting industrialization strategy in favor of a strategy that promotes open trade?
6. Suppose that the demand for labor in manufactured goods is equal to $100 - L_M$ and that the demand for labor in agriculture is equal to $80 - L_A$. There are 100 workers in the economy.
 - a. What is the equilibrium wage?
 - b. What is the loss in national income if the manufacturing wage is set at 50, but there is full employment?

¹This question is intended to challenge students and extend the theory presented in this chapter.

FURTHER READING

- W. Arthur Lewis, *The Theory of Economic Development*. Homewood, IL: Irwin, 1955. A good example of the upbeat view taken of trade policies for economic development during the import-substitution high tide of the 1950s and 1960s.
- I. M. D. Little, *Economic Development*. New York: Basic Books, 1982. An entertaining discussion of the not always scientific process by which ideas about trade policy for developing countries have come into and out of vogue.
- I. M. D. Little, Tibor Scitovsky, and Maurice Scott. *Industry and Trade in Some Developing Countries*. New York: Oxford University Press, 1970. A key work in the emergence of a more downbeat view of import substitution in the 1970s and 1980s.
- Dani Rodrik. "Imperfect Competition, Scale Economies and Trade Policy in Developing Countries," in Robert E. Baldwin, ed. *Trade Policy Issues and Empirical Analysis*. Chicago: University of Chicago Press, 1988. Looks at commercial policy in developing countries from the perspective of trade models with imperfect competition.
- World Bank. *The East Asian Miracle: Economic Growth and Public Policy*. Oxford: Oxford University Press, 1993. An extremely useful survey of the growth of the HPAEs.
- World Bank. *World Development Report 2005. Equity and Development*. The World Bank's reports are valuable guides, not just to the state of developing-country economies, but to the current state of thinking. This latest report reflects growing concern about inequality within developing countries.
- Alwyn Young. "A Tale of Two Cities: Factor Accumulation and Technical Change in Hong Kong and Singapore," in O. J. Blanchard and S. Fischer, eds. *NBER Macroeconomics Annual 1992*. A fascinating comparison of the process of growth in two rapidly growing city-states.
- Alwyn Young. "The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience," *Quarterly Journal of Economics* 110 (August 1995), pp. 641–680. Makes the case that the spectacular growth of the HPAEs can be explained in terms of the rapid growth in measurable inputs.



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