eties. While aid—particularly technical assistance—can play a constructive role during the transition, trade, not aid, is the most important force for integrating these economies into the world market.

**MUTUAL GAINS FROM TRADE**

The case for an open trading system is even stronger today than in 1817, when the English economist David Ricardo first argued for the benefits of free trade on the basis of comparative advantage.

Ricardo argued that countries could gain from specialization and trade by taking advantage of their differences. He showed that whenever the same products sold at different prices in different locations, the possibility of mutually beneficial trade between countries arose. For example, as long as wine was relatively more expensive in England and cloth in Portugal, each country could gain by exporting some of the product that was inexpensive at home in exchange for imports of the product that it found relatively expensive to produce. Through the process of free international trade, the world’s resources would be directed to their most efficient uses and the standard of living of each country would be enhanced. With this insight, the basic case for free trade had been established.

Today, as in Ricardo’s time, people engage in trade to improve their standards of living. This is true whether the trade is among individuals, among States, or among nations.

States or countries often specialize to take advantage of their distinctive climate or natural resources. Thus, it is the fertile land and plentiful rain that leads Iowa farmers to produce corn; it is the warm climate that induces farmers in Florida to grow oranges. If Iowans sell corn to Floridians in exchange for oranges, both sides gain. Similarly, if the United States sells wheat to Brazil in exchange for coffee, both countries gain. Special skills or technology can likewise lead to specialization; advanced technology enables U.S. companies to manufacture many sophisticated goods more cheaply than foreign countries and to pay high wages while doing so.

Economies of large-scale production provide an additional reason for specialization, even among regions that are broadly similar. It would be enormously inefficient for each American State to attempt to become self-sufficient in every variety of manufactured good and specialized service. For many products, research and development (R&D) costs are significant; their production may also require complex and costly machinery. By extending their production runs, firms can spread their overhead costs and lower the cost of producing each unit.
Thus, in the United States, airplane production is concentrated in the Northwest, automobiles in the Midwest, and motion pictures on the West Coast. Each industry produces for a larger market than any single State could sustain, and exports to other States. Similarly, by exporting to other countries, American aircraft companies can lengthen their production runs, lower their costs, and increase their profit margins; this, in turn, can increase the return to innovation and lead to greater investment in R&D, higher growth, and greater choice for domestic consumers.

For many other countries with much smaller domestic markets than that of the United States—which, after all, is the largest economy in the world—economies of scale provide an even greater incentive to engage in international trade. The Swiss pharmaceutical industry, for example, is dependent upon export markets for its prosperity.

In addition to the gains from trade associated with economies of scale and specialization, reducing barriers to imports of goods and services may produce important investment-enhancing and procompetitive effects, especially in countries with high tariffs and relatively closed markets. The doubling of foreign direct investment in Mexico in the past 5 years, for instance, came largely in response to Mexico's unilateral trade and investment liberalization beginning in the mid-1980s. Moreover, although the lower cost of imports that comes with an open trading system can eliminate some import-competing jobs, an open trading system promotes exports and creates export-related jobs. Export growth accounted for 25 percent of the growth in private industry jobs in the United States between 1986 and 1990.

Just as open international markets permit countries to enjoy the mutual gains from trade, protectionism interferes with the ability to realize these gains. Trade barriers not only raise the price of imported goods to consumers but also the price of domestically produced goods that compete with those imports. Such barriers may help import-competing producers, but they do so by hurting other domestic industries. By encouraging domestic production of import-competing goods, protection acts to discourage a nation's resources from reorienting toward exporting sectors. And where scale economies are important, import barriers can fragment the market in ways that diminish the ability of firms to achieve the benefits of large-scale production.

In practice, the costs of protection can be substantial. Between 1981 and 1985, for example, U.S. imports of Japanese automobiles were restricted by a voluntary restraint agreement (VRA), under which Japan agreed to reduce its exports of automobiles to the United States. According to one study, the higher prices brought about by this VRA cost U.S. consumers $5.8 billion in 1984, while
U.S. automakers gained only $2.6 billion. VRAs on imports of steel into the United States, which will expire on March 31, 1992, have also been costly to the U.S. economy. One study estimates that the elimination of VRAs and tariffs on U.S. steel imports would have saved U.S. consumers more than $800 million in 1988; maintaining this protection provided less than $300 million in benefits to U.S. steel producers.

In agriculture, import quotas for commodities such as peanuts and sugar keep domestic prices high at the expense of U.S. consumers. The sugar import quota, for example, maintains domestic prices that are often two to three times the world price. Losses to U.S. consumers were estimated at $1.9 billion in 1987. The current peanut quota is set at 1.7 million pounds, less than one-tenth of 1 percent of total U.S. peanut production. A recent study estimates that the effects of the peanut quota is equivalent to as much as a 90-percent tariff on peanut imports. Another study estimates that the losses to U.S. consumers because of the peanut import quota totaled over $400 million in 1987. These losses are disproportionately shared by lower income groups who spend a larger share of their income on peanut butter. Higher peanut butter costs affect government domestic feeding and child nutrition programs such as the Temporary Emergency Food Assistance Program.

Losses to U.S. consumers from the sugar and peanut quotas are partially offset by the gains to U.S. producers, through higher prices. Sugar and peanut producers are estimated to have gained $1 billion and $370 million, respectively, from import quotas in 1987. Over time, however, these benefits become capitalized into higher land prices. Thus, farmers who lease land and new entrants into farming pay for much of the "benefit" of import quotas through high rental rates and higher land prices.

While the costs of protection can be substantial, new justifications for protection continue to emerge. The recent focus on industries with scale economies, for example, has raised new questions about the possibility of gains from government intervention designed to "create" comparative advantage in such industries. Academic research on this question, however, has generally reinforced the basic case for free trade and the arguments against government intervention (Box 6-1).

If trade barriers are reduced and market forces allowed to act, countries will export the goods for which they are the relatively efficient, low-cost producers and will import other goods in exchange. As the world economy changes, so too will efficient patterns of international specialization and trade, but gains from specialization and trade remain. Such international specialization promotes low-cost, efficient production and contributes to the economic well-being of all trading nations.
As discussions of trade policy have broadened to include industries where scale economies are prevalent and a small number of firms dominate the market, one school of thought has argued that government should intervene to "create" a comparative advantage in such industries, in the expectation that they will provide attractive rates of return.

Far from providing a strong case for government intervention, studies of so-called strategic trade policy generally illustrate more than anything else the pitfalls associated with such a policy. The form of intervention cannot be prescribed without detailed knowledge of industry information, such as the nature of competition among firms, the nature of the research and development process, details of the production technology, and entry conditions in the industry. These information requirements make successful government intervention on a case-by-case basis virtually impossible. Moreover, targeting one favored, "winning" industry to help it achieve large-scale production would typically mean shifting resources away from other industries. Thus, successful intervention in one case is not enough: Anything less than a comprehensive program that correctly identifies and implements the prescribed intervention for a wide range of industries is likely to do more harm than good. That makes successful intervention even less likely.

In practice, evidence suggests the futility of a government attempting to "pick winners." The case of Japanese steel has been widely cited as the classic example of successful Japanese industrial policy in the 1960s and early 1970s, yet the very low returns on Japanese investment in steel suggest that this government policy was anything but successful.

Economies of scale are often suggested as a reason for government intervention, including trade barriers to keep out imports that will spoil the home market. But there is a fundamental paradox here. When economies of scale are present, the gains to the world as a whole from open international trade are particularly great: Open world markets permit firms to extend their production runs and lower their costs. Rather than suggesting that governments should attempt to create comparative advantage in selected industries, economies of scale underline the importance of multilateral commitments to refrain from such attempts and the trade-distorting policies that accompany them.
DISTRIBUTIONAL EFFECTS OF TRADE LIBERALIZATION

Even though each country as a whole enjoys lasting gains from the general reduction of trade barriers, some individuals and firms may nevertheless lose, particularly in the short run.

As the tariff on a good comes down, the domestic price of the good generally falls, to the benefit of the consumer. The owners of the firms in this industry generally lose in the short run as the value of their investment declines, and workers may face wage reductions and temporary job dislocations. Protecting the industry in an attempt to avoid this dislocation, however, typically imposes a large ongoing cost on domestic consumers. The annual consumer cost per job saved by U.S. protection against imports of specialty steel in 1988, for example, was estimated to be more than $340,000.

Those who lose in the short run from tariff reductions are relatively easily identified, but the permanent impact of trade liberalization on the distribution of income is difficult to predict. As affected workers and firms find new opportunities in other sectors, their relocation can affect the structure of wages and returns to investment throughout the economy in ways that are complex and indirect.

Finally, a tariff reduction creates lasting gains, but the gainers are often diffuse or hidden. They are the large group of consumers—who often are unaware of the price decrease that lower tariffs cause—and the workers and owners in export industries, who gain as trade barriers fall and export markets increase.

Because the reduction of trade barriers leads to increased efficiency and improved standards of living for the population as a whole, the possibility that some individuals may lose from trade liberalization is therefore not a reason for a country to resist movement toward more open markets. Rather, it is a reason to allow a gradual phase-in of trade liberalization, to give those who will be adversely affected a better chance to adjust. In fact, gradual phase-ins are a standard feature of international trade agreements. Adjustment programs, which in the United States include programs such as Economic Dislocation and Worker Adjustment Assistance, are also available to reduce the burdens and speed the relocation of workers and firms in trade-impacted industries. Finally, the ability to reimpose temporary protection, which is also a standard feature of international trade agreements, provides an important avenue to prevent or remedy serious injury due to increased imports.

THE NEED FOR STRONG TRADING RULES

While each country has much to gain from trade, the temptation to deviate from open trade policies can be very strong. The readily identifiable distributional effects of trade liberalization in the short
run can create strong lobbying interests who resist the removal of trade barriers even when their removal benefits the nation as a whole. And in times of increasing unemployment, the temptation to use protection to stimulate domestic employment at the expense of foreigners may be especially strong.

The presence of such temptations, which all countries are likely to face, does not justify going ahead with that protection, however. Rather, these temptations signal the need for strong international rules to avoid the reciprocal trade wars that would result if all countries shortsightedly pursued such policies (Box 6-2).

**Box 6-2.—A Lack of Discipline: The Case of Agriculture**

Agriculture has effectively been beyond the discipline of the General Agreement on Tariffs and Trade. This has allowed a web of national policies to evolve that has distorted production patterns and trade. For example, the agricultural export subsidy war being waged by the United States and the European Community (EC) cost EC taxpayers over $11 billion in direct export subsidies in 1988. In the United States, export subsidies totaled more than $1 billion in 1988.

The export subsidies are a direct consequence of agricultural support programs within the EC and the United States. The EC supports high internal prices by subsidizing the export of surplus production. In response to deteriorating market share, some of which was caused by its own high support prices, the United States began subsidizing exports in 1985. Since then, U.S. support prices have been lowered substantially, and new U.S. export subsidies are focused on combating EC subsidies.

The clear winners of the EC-U.S. trade wars have been consumers in the importing countries. At times, U.S. subsidies have been as high as 30 to 40 percent of the world price to counter EC export subsidies, which have been as high as twice the world price. The losers are consumers and taxpayers within the EC and the United States, and producers in nonsubsidizing exporting countries who cannot easily compete with subsidized exports.

In practice, protectionist actions have evoked similar reactions from trading partners. The most notorious episode of "beggar-thy-neighbor" trade policy is the well-known tariff war that erupted with the onset of the Great Depression. Driven by the misguided view that the short-term imposition of tariffs could alleviate the growing unemployment experienced in the U.S. manufacturing and agriculture sectors by "switching" expenditure from foreign to domestic products, the Smoot-Hawley Act of 1930 raised the average...
tariff rate on dutiable imports in the United States to 60 percent. Rather than benefiting the U.S. manufacturing and agriculture sectors, the Smoot-Hawley tariffs had the opposite effect by provoking foreign trade partners to adopt retaliatory tariffs. More than 60 nations responded with tariffs of their own within 2 years. A breakdown in world trade followed, contributing to the global depression.

SUMMARY

- The case for an open trading system is even stronger today than when David Ricardo first argued for the benefits of free trade on the basis of comparative advantage. Comparative advantage provides a reason for countries to gain from specialization and trade by exploiting their differences, while economies of large-scale production provide an additional reason to specialize, even among regions that are broadly similar.

- By exporting to the world, American companies can lengthen their production runs, lower their costs, and increase their profit margins. This, in turn, can increase the return to innovation and lead to greater investment in research and development, higher growth, and a greater variety of goods and services for consumers.

- Even though each country as a whole enjoys lasting gains from the general reduction of trade barriers, some individuals and firms may nevertheless lose, particularly in the short run. Rather than serve as a reason to maintain trade barriers, however, this is a reason to provide for a gradual phase-in of trade liberalization and to have effective adjustment programs.

- While each country has much to gain from trade, the temptation to deviate from open trade policies can sometimes be strong. Such temptations signal the need for strong international trading rules.

INTERNATIONAL INVESTMENT

Along with the flow of trade, greater international investment over the past four decades has increased the global integration of markets. International investment takes two forms. Some is direct investment, where the investing foreign party exercises control over the management of a business; this is judged to occur when foreign ownership reaches at least 10 percent of the voting equity of the business. The remainder is portfolio investment, passive foreign ownership of financial instruments, including corporate stocks or bonds, government securities, or bank deposits.

Worldwide, foreign direct investment flows, which are manifested in the operations of multinational corporations, have grown