How "Foreign" Is Your Car?

Did you know that U.S. buyers of cars and light trucks can learn how American or foreign their new vehicle is? On cars and trucks weighing 8,500 pounds or less, the law requires content labels telling buyers where the parts of the vehicle were made. Content is measured by the dollar value of components, not the labor cost of assembling vehicles. The percentages of North American (U.S. and Canadian) and foreign parts must be listed as an average for each car line. Manufacturers are free to design the label, which can be included on the price sticker or fuel economy sticker or can be separate. Below are some examples of the domestic and foreign content of vehicles sold in the United States for the 2004 model year. The data were collected from automobile stickers at dealers' lots.

Vehicle	Assembly	North American Parts Content (percent)	Foreign Parts Content (percent)
Ford Taurus	United States	95%	5%
Ford Focus	United States	80	20
Ford Crown Victoria	Canada	95	5
Lincoln Navigator	United States	90	5
GMC Yukon	United States	65	35
Pontiac Vibe AWD	United States	64	36
Cadillac Deville	United States	86	14
DaimlerChrysler Durango	United States	77	23
Chevrolet Suburban	Mexico	65	35
Chevrolet Tahoe	United States	65	35

$a + c$) minus the income paid to Japanese managers and the return to Toyota's capital investment (factory) in Australia.

However, the income gains of Australian resource owners inflict costs on Australian consumers. Because the content requirement causes the price of Toyotas to increase by $9,000, Australian consumer surplus decreases by area $a + b$ ($3,600,000). Of this amount, area b ($900,000) is a deadweight welfare loss for Australia. Area a ($2,700,000) is the consumer cost of employing higher-priced Australian resources instead of lower-priced Japanese resources; this amount represents a redistribution of welfare from Australian consumers to Australian resource owners. Similar to other import restrictions, content requirements lead to the subsidizing by domestic consumers of the domestic producer.

Subsidies

National governments sometimes grant **subsidies** to their producers to help improve their trade position. By providing domestic firms a cost advantage, a subsidy allows them to market their products at prices lower than warranted by their actual cost or profit considerations. Governmental subsidies assume a variety of forms, including outright cash disbursements, tax concessions, insurance arrangements, and loans at below-market interest rates. Table 5.6 provides examples of governmental subsidies for several nations.

TABLE 5.6

Examples of Governmental Subsidies

Country	Subsidy Policy
Australia	Export market development grants extended to Australian exporters to seek out and develop overseas markets
Canada	Rail transportation subsidies granted to Canadian exporters of wheat, barley, oats, and alfalfa
European Union	Export subsidies provided to many agricultural products such as wheat, beef, poultry, fruits, and dairy products; financial assistance extended to Airbus
Japan	Financial assistance extended to Japanese aerospace producers, including loans at low interest rates and assistance with R&D costs
United States	Export subsidies provided to U.S. producers of agricultural and manufactured goods through the Commodity Credit Corporation and the Export Import Bank

Source: Office of the U.S. Trade Representative, *Foreign Trade Barriers* (Washington, DC: U.S. Government Printing Office, various issues).

For purposes of our discussion, two types of subsidies can be distinguished: a **domestic subsidy**, which is sometimes granted to producers of import-competing goods, and an **export subsidy**, which goes to producers of goods that are to be sold overseas. In both cases, the government adds an amount to the price the purchaser pays rather than subtracting from it. The net price actually received by the producer equals the price paid by the purchaser plus the subsidy. The subsidized producer is thus able to supply a greater quantity at each consumer's price. Let us use Figure 5.6 on page 156 to analyze the effects of these two types of subsidies.

Domestic Subsidy

Figure 5.6(a) illustrates the trade and welfare effects of a production subsidy granted to import-competing manufacturers. Assume that the initial supply and demand schedules of the United States for steel are depicted by curves $S_{U.S._0}$ and $D_{U.S._0}$, so that the market equilibrium price is $430 per ton. Assume also that, because the United States is a small buyer of steel, changes in its purchases do not affect the world price of $400 per ton. Given a free-trade price of $400 per ton, the United States consumes 14 tons of steel, produces 2 tons, and imports 12 tons.

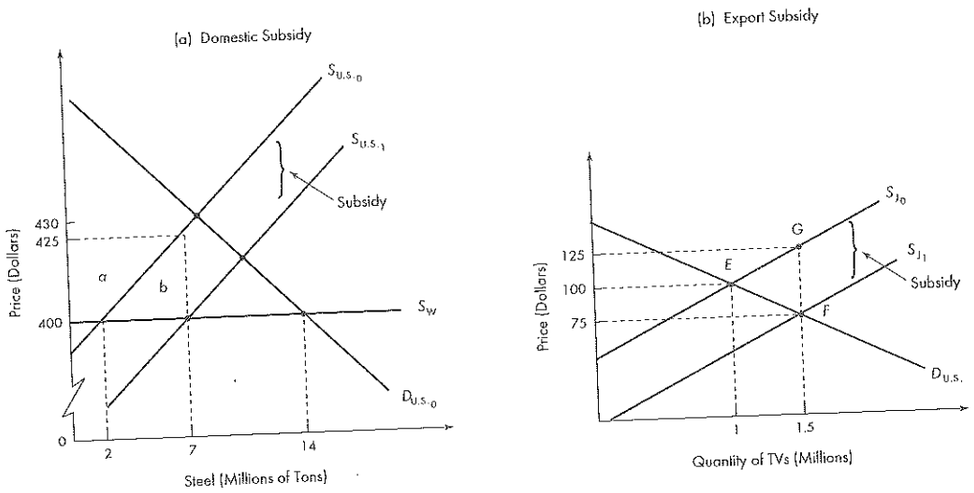
To partially insulate domestic producers from foreign competition, suppose the U.S. government grants them a production subsidy of $25 per ton of steel. The cost advantage made possible by the subsidy results in a shift in the U.S. supply schedule from $S_{U.S._0}$ to $S_{U.S._1}$. Domestic production expands from 2 to 7 million tons, and imports fall from 12 to 7 million tons. These changes represent the subsidy's trade effect.

The subsidy also affects the national welfare of the United States. According to Figure 5.6(a), the subsidy permits U.S. output to rise to 7 million tons. Note that, at this output, the net price to the steelmaker is $425—the sum of the price paid by the consumer ($400) plus the subsidy ($25). To the U.S. government, the total cost of protecting its steelmakers equals the amount of the subsidy ($25) times the amount of output to which it is applied (7 million tons), or $175 million.

Where does this subsidy revenue go? Part of it is redistributed to the more efficient U.S. producers in the form of *producer surplus*. This amount is denoted by area a ($112.5 million) in the figure. There is also a *protective effect*, whereby more costly domestic output is allowed to be sold in the market as a result of the subsidy. This is denoted by area b ($62.5 million) in the figure. To the

FIGURE 5.6

Trade and Welfare Effects of Subsidies



A government subsidy granted to import-competing producers leads to increased domestic production and reduced imports. The subsidy revenue accruing to the producer is absorbed by producer surplus and high-cost production (protective effect). A government subsidy granted to exporters results in an export revenue effect and a terms-of-trade effect.

United States as a whole, the protective effect represents a deadweight loss of welfare.

To encourage production by its import-competing manufacturers, a government might levy tariffs or quotas on imports. But tariffs and quotas involve larger sacrifices in national welfare than would occur under an equivalent subsidy. Unlike subsidies, tariffs and quotas distort choices for domestic consumers (resulting in a decrease in the domestic demand for imports), in addition to permitting less efficient home production to occur. The result is the familiar consumption effect of protection, whereby a deadweight loss of consumer surplus is borne by the home nation. This welfare loss is absent in the subsidy case. Thus, a subsidy tends to yield the same result for domestic producers as does an equivalent tariff or quota, but at a *lower* cost in terms of national welfare.

Subsidies are not free goods, however, for they must be financed by someone. The direct cost of the subsidy is a burden that must be financed out of tax revenues paid by the public. Moreover, when a subsidy is given to an industry, it is often in return for accepting government conditions on key matters (such as wage and salary levels). Thus a subsidy may not be as superior to other types of commercial policies as this analysis suggests.

Export Subsidy

Besides attempting to protect import-competing industries, many national governments grant subsidies, including special tax exemptions and the provision of capital at favored rates, to increase the volume of exports. By providing a cost advantage to domestic producers, such subsidies are intended to encourage a nation's exports by reducing the price paid by foreigners. Foreign consumers are favored over domestic consumers to the extent that the foreign price of a subsidized export is less than the product's domestic price.

The granting of an export subsidy yields two direct effects for the home economy: a *terms-of-trade* effect and an **export-revenue effect**. Because subsidies tend to reduce the foreign price of home-nation exports, the home nation's terms of trade is worsened. But lower foreign prices generally stimulate export volume. Should the foreign demand for exports be relatively elastic, so that a given percentage drop in foreign price is more than offset by the rise in export volume, the home nation's export revenues will increase.

Figure 5.6(b) illustrates the case of an export subsidy applied to television sets in trade between Japan and the United States. Under free trade, market equilibrium exists at point E, where Japan exports 1 million television sets to the United States at a price of $100 per unit. Suppose the Japanese government, to encourage export sales, grants to its exporters a subsidy of $50 per set. The Japanese supply schedule shifts from S_{J_0} to S_{J_1}, and market equilibrium moves to point F. The terms of trade thus turns against Japan because its export price falls from $100 to $75 per television set exported. Whether Japan's export revenue rises depends on how U.S. buyers respond to the price decrease. If the percentage increase in the number of television sets sold to U.S. buyers more than offsets the percentage decrease in price, Japan's export revenue will rise. This is the case in Figure 5.6(b), which shows Japan's export revenue rising from $100 million to $112.5 million as the result of the decline in the price of its export good.

Although export subsidies may benefit industries and workers in a subsidized industry by increasing sales and employment, the benefits may be offset by certain costs that fall on the society as a whole. Consumers in the exporting nation suffer as the international terms of trade moves against them. This situation comes about because, given a fall in export prices, a greater number of exports must be exchanged for a given dollar amount in imports. Domestic consumers also find they must pay higher prices than foreigners for the goods they help subsidize. Furthermore, to the extent that taxes are required to finance the export subsidy, domestic consumers find themselves poorer. In the previous example, the total cost of the subsidy to Japanese taxpayers is $75 million ($50 subsidy times 1.5 million television sets).

Dumping

The case for protecting import-competing producers from foreign competition is bolstered by the antidumping argument. **Dumping** is recognized as a form of international price discrimination. It occurs when foreign buyers are charged lower prices than domestic buyers for an identical product, after allowing for transportation costs and tariff duties. Selling in foreign markets at a price below the cost of production is also considered dumping.

Forms of Dumping

Commercial dumping is generally viewed as sporadic, predatory, or persistent in nature. Each type is practiced under different circumstances.

Sporadic dumping (distress dumping) occurs when a firm disposes of excess inventories on foreign markets by selling abroad at lower prices than at home. This form of dumping may be the result of misfortune or poor planning by foreign producers. Unforeseen changes in supply and demand conditions can result in excess inventories and thus in dumping. Although sporadic dumping may be beneficial to importing consumers, it can be quite disruptive to import-competing producers, who face falling sales and short-run losses. Temporary tariff duties can be levied to protect home producers, but because sporadic dumping has minor effects on international trade, governments are reluctant to grant tariff protection under these circumstances.

Predatory dumping occurs when a producer temporarily reduces the prices charged abroad to drive foreign competitors out of business. When the producer succeeds in acquiring a monopoly position, prices are then raised commensurate with its market power. The new price level must be sufficiently high to offset any losses that occurred during the period of cutthroat pricing. The firm would

presumably be confident in its ability to prevent the entry of potential competitors long enough for it to enjoy economic profits. To be successful, predatory dumping would have to be practiced on a massive basis to provide consumers with sufficient opportunity for bargain shopping. Home governments are generally concerned about predatory pricing for monopolizing purposes and may retaliate with antidumping duties that eliminate the price differential. Although predatory dumping is a theoretical possibility, economists have not found empirical evidence that supports its existence.

Persistent dumping, as its name suggests, goes on indefinitely. In an effort to maximize economic profits, a producer may consistently sell abroad at lower prices than at home. The rationale underlying persistent dumping is explained in the next section.

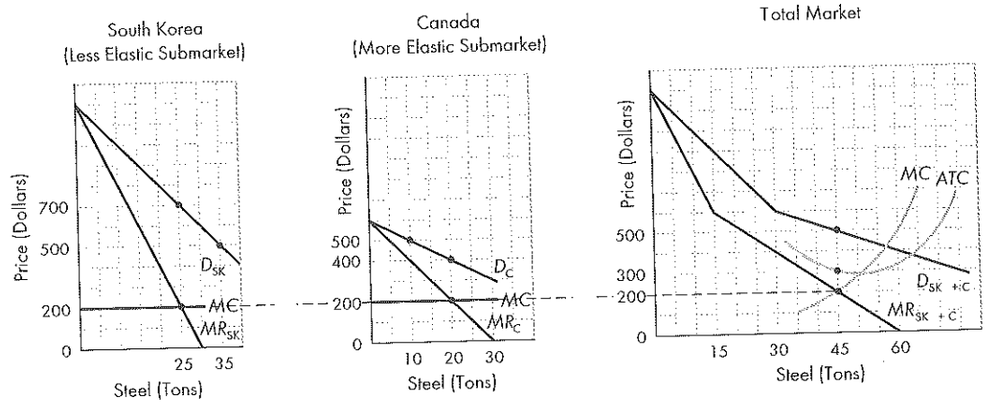
International Price Discrimination

Consider the case of a domestic seller that enjoys market power as a result of barriers that restrict competition at home. Suppose this firm sells in foreign markets that are highly competitive. This means that the domestic consumer response to a change in price is less than that abroad; the home demand is less elastic than the foreign demand. A profit-maximizing firm would benefit from international price discrimination, charging a *higher* price at home, where competition is weak and demand is less elastic, and a *lower* price for the same product in foreign markets to meet competition. The practice of identifying separate groups of buyers of a product and charging different prices to these groups results in increased revenues and profits for the firm as compared to what would occur in the absence of price discrimination.

Figure 5.7 illustrates the demand and cost conditions of South Korean Steel Inc. (SKS), which sells steel to buyers in South Korea (less elastic market) and in Canada (more elastic market); the total steel market consists of these two submarkets. Let D_{SK} be the South Korean steel demand and D_C be the Canadian demand, with the corresponding marginal revenue schedules represented

FIGURE 5.7

International Price Discrimination



A price-discriminating firm maximizes profits by equating marginal revenue, in each submarket, with marginal cost. The firm will charge a higher price in the less-elastic-demand (less competitive) market and a lower price in the more-elastic-demand (more competitive) market. Successful dumping leads to additional revenue and profits for the firm compared to what would be realized in the absence of dumping.

by MR_{SK} and MR_C, respectively. D_{SK+C} denotes the market demand schedule, found by adding horizontally the demand schedules of the two submarkets; similarly, MR_{SK+C} depicts the market marginal revenue schedule. The marginal cost and average total cost schedules of SKS are denoted respectively by *MC* and *ATC*.

SKS maximizes total profits by producing and selling 45 tons of steel, at which marginal revenue equals marginal cost. At this output level, *ATC* = \$300 per ton, and total cost equals \$13,500 (\$300 × 45 tons). The firm faces the problem of how to distribute the total output of 45 tons, and thus set price, in the two submarkets in which it sells. Should the firm sell steel to South Korean and Canadian buyers at a uniform (single) price, or should the firm practice differential pricing?

As a *nondiscriminating* seller, SKS sells 45 tons of steel to South Korean and Canadian buyers at the single price of \$500 per ton, the maximum price permitted by demand schedule D_{SK+C} at the $MR = MC$ output level. To see how many tons of steel are sold in each submarket, construct a horizontal line in Figure 5.7 at the price of \$500. The optimal output in each submarket occurs where the horizontal line intersects the demand schedules of the two nations. SKS thus sells 35 tons of steel to South Korean buyers at a price of \$500 per ton and receives revenues totaling \$17,500. The firm sells 10 tons of steel to Canadian buyers at a price of \$500 per ton and realizes revenues of \$5,000. Sales revenues in both submarkets combined equal \$22,500. With total costs of \$13,500, SKS realizes profits of \$9,000.

Although SKS realizes profits as a nondiscriminating seller, its profits are not optimal. By engaging in price discrimination, the firm can increase its total revenues without increasing its costs, and thus increase its profits. The firm accomplishes this by charging *higher* prices to South Korean buyers, who have less elastic demand schedules, and *lower* prices to Canadian buyers, who have more elastic demand schedules.

As a price-discriminating seller, SKS again faces the problem of how to distribute the total output of 45 tons of steel, and thus set price, in the two submarkets in which it sells. To accomplish this, the firm follows the familiar $MR = MC$ principle, whereby the marginal revenue of each submarket equals the marginal cost at the profit-maximizing output. This can be shown in Figure 5.7 by first constructing a horizontal line from \$200, the point where $MC = MR_{SK+C}$. The optimal output and price in each submarket is then found where this horizontal line intersects the *MR* schedules of the submarkets. SKS thus sells 25 tons of steel to South Korean buyers at a price of \$700 per ton and receives revenues totaling \$17,500. The firm sells 20 tons of steel to Canadian buyers at a price of \$400 per ton and collects revenues of \$8,000. The combined revenues of the two submarkets equal \$25,500, a sum \$3,000 greater than in the absence of price discrimination. With total costs of \$13,500, the firm realizes profits of \$12,000, compared to \$9,000 under a single pricing policy. As a price-discriminating seller, SKS thus enjoys higher revenues and profits.

Notice that the firm took advantage of its ability to price-discriminate, charging different prices in the two submarkets: \$700 per ton to South Korean steel buyers and \$400 per ton to Canadian buyers. For international price discrimination to be successful, certain conditions must hold. First, to ensure that at any price the demand schedules in the two submarkets have different demand elasticities, the submarkets' demand conditions must differ. Domestic buyers, for example, may have income levels or tastes and preferences that differ from those of buyers abroad. Second, the firm must be able to separate the two submarkets, preventing any significant resale of commodities from the lower-priced to the higher-priced market. This is because any resale by consumers will tend to neutralize the effect of differential prices and will narrow the discriminatory price structure to the point at which it approaches a single price to all consumers. Because of high transportation costs and governmental trade restrictions, markets are often easier to separate internationally than nationally.

Antidumping Regulations

Despite the benefits that dumping may offer to importing consumers, governments have often levied

penalty duties against commodities they believe are being dumped into their markets from abroad. U.S. antidumping law is designed to prevent price discrimination and below-cost sales that injure U.S. industries. Under U.S. law, an **antidumping duty** is levied when the U.S. Department of Commerce determines a class or kind of foreign merchandise is being sold at *less than fair value (LTFV)* and the U.S. International Trade Commission (ITC) determines that LTFV imports are causing or threatening material injury (such as unemployment and lost sales and profits) to a U.S. industry. Such antidumping duties are imposed in addition to the normal tariff in order to neutralize the effects of price discrimination or below-cost sales.

The **margin of dumping** is calculated as the amount by which the foreign market value exceeds the U.S. price. Foreign market value is defined in one of two ways. According to the **priced-based definition**, dumping occurs whenever a foreign company sells a product in the U.S. market at a price below that for which the same product sells in the home market. When a home-nation price of the good is not available (for example, if the good is produced only for export and is not sold domestically), an effort is made to determine the price of the good in a third market.

In cases where the price-based definition cannot be applied, a **cost-based definition** of foreign market value is permitted. Under this approach, the Commerce Department "constructs" a foreign market value equal to the sum of (1) the cost of manufacturing the merchandise, (2) general expenses, (3) profit on home-market sales, and (4) the cost of packaging the merchandise for shipment to the United States. The amount for general expenses must equal at least 10 percent of the cost of manufacturing, and the amount for profit must equal at least 8 percent of the manufacturing cost plus general expenses.

Antidumping cases begin with a complaint filed concurrently with the Commerce Department and the International Trade Commission. The complaint comes from within an import-competing industry (for example, from a firm or labor union) and consists of evidence of the existence of dumping and data that demonstrate material injury or threat of injury.

The Commerce Department first makes a preliminary determination as to whether or not dumping has occurred, including an estimate of the size of the dumping margin. If the preliminary investigation finds evidence of dumping, U.S. importers must immediately pay a special tariff (equal to the estimated dumping margin) on all imports of the product in question. The Commerce Department then makes its final determination as to whether or not dumping has taken place, as well as the size of the dumping margin. If the Commerce Department rules that dumping did not occur, special tariffs previously collected are rebated to U.S. importers. Otherwise, the International Trade Commission determines whether or not material injury has occurred as the result of the dumping.

If the International Trade Commission rules that import-competing firms were not injured by the dumping, the special tariffs are rebated to U.S. importers. But if both the International Trade Commission and the Commerce Department rule in favor of the dumping petition, a permanent tariff is imposed that equals the size of the dumping margin calculated by the Commerce Department in its final investigation. Let us consider some cases involving dumping.

Smith Corona Finds Antidumping Victories Are Hollow

Although antidumping duties are intended to protect domestic producers from unfairly priced imports, they can be an inconclusive weapon. Consider the case of Smith Corona, Inc., which won several antidumping cases from the 1970s to the 1990s but had little to show for it.

Trouble erupted for Smith Corona in the 1970s when it encountered ferocious competition from Brother Industries Ltd. of Japan, which flooded the U.S. market with its portable typewriters. Responding to Smith Corona's dumping complaint, in 1980 the U.S. government imposed antidumping duties of 49 percent on Brother portables. Smith Corona's antidumping victory proved to be hollow, however, because Brother realized that the antidumping ruling applied only to typewriters without a memory or calculating function. Through the tactic of *product evolution*, Brother evaded the duties by upgrading its typewriter to include a tiny computer memory. It took until 1990 for Smith Corona to get this loophole plugged by the federal court of appeals in Washington, DC. By that time, Brother had found a more permanent method of circumventing antidumping duties: It began assembling portable typewriters in the United States from

Swimming Upstream: The Case of Vietnamese Catfish

In 2003, the U.S. government was strongly criticized for assaulting catfish imports from Vietnam. According to Senator John McCain and other critics, this policy was an example of how wealthy countries preach the gospel of free trade when it comes to finding markets for their manufactured goods, but become highly protectionist when their farmers face competition. Let us consider this trade dispute.

After pursuing pro-capitalistic reforms, Vietnam became one of globalization's success stories of the 1990s. The nation transformed itself from being a rice importer to the world's second largest rice exporter and also an exporter of coffee. Vietnam's rural poverty rate declined from 70 percent to 30 percent. The normalization of communication between the governments of Vietnam and the United States resulted in American trade missions intended on increasing free enterprise in Vietnam.

On one of these trade missions, delegates saw much promise in Vietnamese catfish, with the country's Mekong Delta and cheap labor providing a competitive advantage. Within several years, some half-million Vietnamese were earning income from catfish trade. Vietnam captured 20 percent of the frozen catfish-fillet market in the United States, forcing down prices. To the alarm of catfish farmers in Mississippi, the hub of the U.S. catfish industry, even local restaurants were serving Vietnamese catfish.

Before long, Vietnamese farmers faced a nasty trade war waged by Mississippi's catfish farmers involving product labeling and antidumping tariffs. Although these farmers are usually not large agribusinesses, they were strong enough to persuade the U.S. government to close the catfish market to the very Vietnamese farmers whose enterprise it had originally encouraged. The government declared that out of 2,000 types of catfish, only the American-born family could be called "catfish." So the Vietnamese could market their fish in America only by using Vietnamese words such as "tra" and "basa." Mississippi catfish farmers issued warnings of a "slippery catfish wannabe," saying such fish were "probably not even sporting real whiskers" and "floating around in Third World rivers nibbling on who knows what." This disinformation campaign resulted in decreased sales of Vietnamese catfish in the United States.

Not satisfied with its labeling success, the Mississippi catfish farmers initiated an antidumping case against Vietnamese catfish. In this case, the U.S. Department of Commerce did not have strong evidence that the imported fish were being sold in America more cheaply than in Vietnam, or below their cost of production. But rather than leaving Mississippi catfish farmers to the forces of international competition, the department declared Vietnam a "nonmarket" economy. This designation implied that Vietnamese farmers must not be covering all the costs they would in a market economy such as the United States, and thus were dumping catfish into the American market. Thus, tariffs ranging from 37 percent to 64 percent were imposed by the department on Vietnamese catfish. The U.S. International Trade Commission made the tariffs permanent by stating that the American catfish industry was injured by unfair competition due to dumping by Vietnam. According to critics, this nonmarket designation should not have been used because the U.S. government was encouraging Vietnam to become a market economy.

Source: "Harvesting Poverty: The Great Catfish War," *The New York Times*, July 22, 2003, p. 18, and The World Bank, *Global Economic Prospects*, 2004, Washington, DC, p. 85.

components manufactured in Malaysia and Japan. These typewriters were no longer "imported," and thus the 1980s duties did not apply.

Then competition shifted to another product, the personal word processor. By 1990, Smith Corona complained that Brother and other Japanese manufacturers were dumping word processors in the United States. This led the U.S. government to impose import duties of almost 60 percent on Japanese word processors in 1991. But that victory was also hollow, because it applied only to word processors manufactured in Japan; the Japanese firms assembled their word processors in the United States.

Undeterred, Smith Corona filed another complaint, invoking a provision in U.S. trade law that was designed to deter foreign firms from evading antidumping duties by importing components and assembling them in the United States. But the provision assumed that imported components would come from domestic (Japanese) factories, so it did not cover components produced in third countries. Recognizing this loophole, Brother demonstrated that its imported components came from third countries, and therefore its word processors were not subject to antidumping duties. All in all, obtaining relief from foreign dumped goods was a difficult process for Smith Corona!

Canadians Press Washington Apple Producers for Level Playing Field

Not only have foreign producers dumped products in the United States, but U.S. firms have sometimes dumped goods abroad.

In 1989, the Canadian government ruled that U.S. Delicious apples, primarily those grown in Washington, had been dumped on the Canadian market, causing injury to 4,500 commercial apple growers. As a result of the ruling, a 42-pound box of Washington apples could not be sold in Canada for less than $11.87, the "normal value" (analogous to the U.S. concept of "fair value") established by the Canadian government for regular-storage apples. Canadian importers purchasing U.S. apples at below-normal value had to pay an antidumping duty to the Canadian government so that the total purchase price equaled the established value. The antidumping order was for the five years 1989 to 1994.

The Canadian apple growers' complaint alleged that extensive tree plants in the United States during the late 1970s and early 1980s resulted in excess apple production. In 1987 and 1988, Washington growers experienced a record harvest and inventories that exceeded storage facilities. The growers dramatically cut prices in order to market their crop, leading to a collapse of the North American price of Delicious apples.

When Washington apple growers failed to provide timely information, the Canadian government estimated the normal value of a box of U.S. apples using the best information available. As seen in Table 5.7, the normal value for a box of apples in the crop-year 1987–1988 was $11.87. During this period, the U.S. export price to Canada was about $9 a box. Based on a comparison of the export price and the normal value of apples, the weighted-average dumping margin was determined to be 32.5 percent.

The Canadian government determined that the influx of low-priced Washington apples into the Canadian market displaced Canadian apples and resulted in losses to Canadian apple growers of $1 to $6.40 (Canadian dollars) per box during the 1987–1988 growing season. The Canadian government ruled that the dumped apples injured Canadian growers, and thus imposed antidumping duties on Washington apples.

TABLE 5.7

Normal Value and the Margin of Dumping: Delicious Apples, Regular Storage, 1987–1988*

U.S. FOB per Packed Box (42 pounds)	Normal Value (in Dollars)
Growing and harvesting costs	$ 5.50
Packing, marketing, and storing costs	5.49
Total costs	10.99
Profit (8% margin)	.88
Total normal value	$11.87
Margin of Dumping	**Percentage**
Range	0–63.44%
Weighted-average margin	32.53

*The weighted-average dumping margin for controlled-atmosphere-storage apples was 23.86 percent.

Source: *Statement of Reasons: Final Determination of Dumping Respecting Delicious Apples Originating in or Exported from the United States of America,* Revenue Canada, Customs and Excise Division, December 1988.

Is the Antidumping Law Unfair?

U.S. antidumping law attempts to address the issue of unfairness to producers of import-competing goods. Because it is hard to define unfairness, it is not surprising that antidumping law is subject to criticism.

Should Average Variable Cost Be the Yardstick for Defining Dumping?

Under current rules, dumping can occur when a foreign producer sells goods in the United States at less than fair value. Fair value is equated with average total cost plus an 8 percent allowance for profit. However, many economists argue that fair value should be based on *average variable cost* rather than average total cost, especially when the domestic economy realizes temporary downturn in demand.

Consider the case of a radio producer under the following assumptions: (1) The producer's physical capacity is 150 units of output over the given time period; and (2) The domestic market's demand for radios is price-inelastic, whereas foreign demand is price-elastic. Refer to Table 5.8. Suppose that the producer charges a uniform price (no dumping) of $300 per unit to both domestic and foreign consumers. With domestic demand inelastic, domestic sales total 100 units. But with elastic demand conditions abroad, suppose the producer cannot market any radios at the prevailing price. Sales revenues would equal $30,000, with variable costs plus fixed costs totaling $30,000. Without dumping, the firm would find itself with excess capacity of 50 radios. Moreover, the firm would just break even on its domestic market operations.

Suppose this producer decides to dump radios abroad at lower prices than at home. As long as all variable costs are covered, any price that contributes to fixed costs will permit larger profits (smaller losses) than those realized with idle plant capacity at hand. According to Table 5.8, by charging $300 to home consumers, the firm can sell 100 units. Suppose that by charging a price of $250 per unit, the firm is able to sell an additional 50 units abroad. The total sales revenue of $42,500 would not only cover variable costs plus fixed costs, but would permit a profit of $2,500.

With dumping, the firm is able to increase profits even though it is selling abroad at a price less than average total cost (average total cost = $40,000/150 = $267). Firms facing excess productive capacity

TABLE 5.8

Dumping and Excess Capacity

	No Dumping	Dumping
Home sales	100 units @ $300	100 units @ $300
Export sales	0 units @ $300	50 units @ $250
Sales revenue	$30,000	$42,500
Less variable costs of $200 per unit	− 20,000	− 30,000
	$10,000	$12,500
Less total fixed costs of $10,000	− 10,000	− 10,000
Profit	$0	$2,500

may thus have the incentive to stimulate sales by cutting prices charged to foreigners—perhaps to levels that just cover average variable cost. Of course, domestic prices must be sufficiently high to keep the firm operating profitably over the relevant time period.

Put simply, many economists argue that antidumping law, which uses average total cost as a yardstick to determine fair value, is unfair. They note that economic theory suggests that under competitive conditions, firms price their goods at average variable costs, which are below average total costs. Therefore, the antidumping laws punish firms that are simply behaving in a manner typical of competitive markets. Moreover, the law is unfair because U.S. firms selling at home are not subject to the same rules. Indeed, it is quite possible for a foreign firm that is selling at a loss both at home and in the United States to be found guilty of dumping, when U.S. firms are also making losses and selling in the domestic market at exactly the same price.

Should the Antidumping Law Reflect Currency Fluctuations?

Another criticism of antidumping law is that it does not account for currency fluctuations. Consider the price-based definition of dumping: selling at lower prices in the foreign market. Because foreign producers often must set their prices for foreign customers in terms of a foreign currency, fluctuations in exchange rates can cause them to "dump" according to the legal definition. For example, suppose the Japanese yen appreciates against the U.S. dollar, which means that it takes fewer yen to buy a dollar. But if Japanese steel exporters are meeting competition in the United States and setting their prices in dollars, the appreciation of the yen will cause the price of their exports in terms of the yen to decrease, making it appear that they are dumping in the United States. Under the U.S. antidumping law, American firms are not required to meet the standard imposed on foreign firms selling in the United States. Does the antidumping law redress unfairness—or create it?

Other Nontariff Trade Barriers

Other NTBs consist of governmental codes of conduct applied to imports. Even though such provisions are often well disguised, they remain important sources of commercial policy. Let's consider three such barriers: government procurement policies, social regulations, and sea transport and freight regulations.

Government Procurement Policies

Because government agencies are large buyers of goods and services, they are attractive customers for foreign suppliers. If governments purchased goods and services only from the lowest-cost suppliers, the pattern of trade would not differ significantly from that which occurs in a competitive market. Most governments, however, favor domestic suppliers over foreign ones in the procurement of materials and products. This is evidenced by the fact that the ratio of imports to total purchases in the public sector is much smaller than in the private sector.

Governments often extend preferences to domestic suppliers in the form of **buy-national policies**. The U.S. government, through explicit laws, openly discriminates against foreign suppliers in its purchasing decisions. Although most other governments do not have formally legislated preferences for domestic suppliers, they often discriminate against foreign suppliers through hidden administrative rules and practices. Such governments utilize closed bidding systems that restrict the number of companies allowed to bid on sales, or they may publicize government contracts in such a way as to make it difficult for foreign suppliers to make a bid.

To stimulate domestic employment during the Great Depression, in 1933 the U.S. government passed the Buy American Act. This act requires federal agencies to purchase materials and products from U.S. suppliers if their prices are not "unreasonably" higher than those of foreign competitors. A product, to qualify as domestic, must have at least a 50 percent domestic component content and must be manufactured in the United States. As it stands today, U.S. suppliers of civilian agencies are given a 6 percent preference margin. This means that a U.S. supplier receives the government contract as long as the U.S. low bid is no more than 6 percent higher than the competing foreign bid. This preference margin rises to 12 percent if the low domestic bidder is situated in a labor-surplus area, and to 50 percent if the purchase is made by the Department of Defense. These preferences are waived when it is determined that the U.S.–produced good is not available in sufficient quantities or is not of satisfactory quality.

By discriminating against low-cost foreign suppliers in favor of domestic suppliers, buy-national policies are a barrier to free trade. Domestic suppliers are given the leeway to use less efficient production methods and to pay resource prices higher than those permitted under free trade. This yields a higher cost for government projects and deadweight welfare losses for the nation in the form of the protective effect and consumption effect.

The buy-American restrictions of the U.S. government have been liberalized with the adoption of the Tokyo Round of Multilateral Trade Negotiations in 1979. However, the pact does not apply to the purchase of materials and products by state and local government agencies. More than 30 states currently have buy-American laws, ranging from explicit prohibitions on purchases of foreign products to loose policy guidelines favoring U.S. products. Advocates of state buy-American laws usually maintain that the laws provide direct local economic benefit in the form of jobs; moreover, the threat of foreign retaliation is minimal at the state level.

Social Regulations

Since the 1950s, nations have assumed an ever-increasing role in regulating the quality of life for society. **Social regulation** attempts to correct a variety of undesirable side effects in an economy that relate to health, safety, and the environment—effects that markets, left to themselves, often ignore. Social regulation applies to a particular issue, say environmental quality, and affects the behavior of firms in many industries such as automobiles, steel, and chemicals.

CAFÉ Standards

Although social regulations may advance health, safety, and environmental goals, they can also serve as barriers to international trade. Consider the case of fuel economy standards imposed by the U.S. government on automobile manufacturers.

Originally enacted in 1975, **corporate average fuel economy (CAFÉ) standards** represent the foundation of U.S. energy conservation policy. Applying to all passenger vehicles sold in the United States, the standards are based on the average fuel efficiency of all vehicles sold by all manufacturers. Since 1990, the CAFÉ requirement for passenger cars has been 27.5 miles a gallon. Manufacturers whose average fuel economy falls below this standard are subject to fines.

During the 1980s, CAFÉ requirements were used not only to promote fuel conservation but also to protect jobs of U.S. autoworkers. The easiest way for U.S. car manufacturers to improve the average fuel efficiency of their fleets would have been to import smaller, more fuel-efficient vehicles from their subsidiaries in Asia and Europe. However, this would have decreased employment in an already depressed industry. The U.S. government thus enacted *separate but identical* standards for domestic and imported passenger cars. Therefore, General Motors, Ford, and DaimlerChrysler, which manufactured vehicles in the United States and also sold imported cars, would be required to fulfill CAFÉ targets for *both* categories of vehicles. U.S. firms thus could not fulfill CAFÉ standards by averaging the fuel economy of their imports with their less fuel-efficient, domestically produced vehicles. By calculating domestic and imported fleets separately, the U.S. government attempted to force domestic firms not only to manufacture more efficient vehicles but also to produce them in the United States! In short, government regulations sometimes place effective import barriers on foreign commodities, whether they are intended to do so or not, thus aggravating foreign competitors.

Hormones in Beef Production

The European Union's ban on hormone-treated meat is another case where social regulations can lead to a beef. Growth-promoting hormones are used widely by livestock producers to speed up growth rates and produce leaner livestock more in line with consumer preferences for diets with reduced fat and cholesterol. However, critics of hormones maintain that they can cause cancer for consumers of meat.

In 1989, the European Union enacted its ban on production and importation of beef derived from animals treated with growth-promoting hormones. The European Union justified the ban as needed to protect the health and safety of consumers.

The ban was immediately challenged by U.S. producers, who used the hormones in about 90 percent of their beef production. According to the United States, there was no scientific basis for the ban that restricted beef imports on the basis of health concerns. Instead, the ban was merely an attempt to protect the relatively high-cost European beef industry from foreign competition. U.S. producers noted that when the ban was imposed, European producers had accumulated large, costly-to-store beef surpluses that resulted in enormous political pressure to limit imports of beef. The European Union's emphasis on health concerns was thus a smokescreen for protecting an industry with comparative disadvantage, according to the United States.

The trade dispute eventually went to the World Trade Organization (WTO) (see Chapter 6), which ruled that the European Union's ban on hormone-treated beef was illegal and resulted in lost annual U.S. exports of beef to the European Union in the amount of $117 million. Nonetheless, the European Union, citing consumer preference, refused to lift its ban. Therefore, the WTO authorized the United States to impose tariffs high enough to prohibit $117 million of European exports to the United States. The United States exercised its right and slapped 100 percent tariffs on a list of European products that included tomatoes, roquefort cheese, prepared mustard, goose liver, citrus fruit, pasta, hams, and other products. The U.S. hit list focused on products from Denmark, France, Germany, and Italy—the biggest supporters of the European Union's ban on hormone-treated beef. By effectively doubling the prices of the targeted products, the 100 percent tariffs pressured the Europeans to liberalize their imports of beef products.

Sea Transport and Freight Restrictions

During the 1990s, U.S. shipping companies serving Japanese ports complained of a highly restrictive system of port services. They contended that Japan's association of stevedore companies (companies that unload cargo from ships) used a system of prior consultations to control competition, allocate harbor work among themselves, and frustrate the implementation of any cost-cutting by shipping companies.

In particular, shipping companies contended that they were forced to negotiate with the Japanese stevedore-company association on everything from arrival times to choice of stevedores and warehouses. Because port services were controlled by the stevedore-company association, foreign carriers could not negotiate with individual stevedore companies about prices and schedules. Moreover, U.S. carriers maintained that the Japanese government approved these restrictive practices by refusing to license new entrants into the port service business and by supporting the requirement that foreign carriers negotiate with Japan's stevedore-company association.

A midnight trip to Tokyo Bay illustrates the frustration of U.S. shipping companies. The lights are dimmed and the wharf is quiet, even though the *Sealand Commerce* has just docked. At 1 A.M., lights turn on, cranes swing alive, and trucks appear to unload the ship's containers, which carry paper plates, computers, and pet food from the United States. At 4 A.M., however, the lights shut off and the work ceases. Longshoremen won't return until 8:30 A.M. and will take three more hours off later in the day. They have unloaded only 169 of 488 containers that they must handle before the ship sails for Oakland. At this rate, the job will take until past noon; but at least it isn't Sunday, when docks close altogether.

When the *Sealand Commerce* reaches Oakland, however, U.S. dockworkers will unload and load 24 hours a day, taking 30 percent less time for about half the price. To enter Tokyo Bay, the ship had to clear every detail of its visit with Japan's stevedore-company association; to enter the U.S. port, it will merely notify port authorities and the Coast Guard. According to U.S. exporters, this unequal treatment on waterfronts is a trade barrier because it makes U.S. exports more expensive in Japan.

In 1997, the United States and Japan found themselves on the brink of a trade war after the U.S. government decided to direct its Coast Guard and Customs service to bar Japanese-flagged ships from unloading at U.S. ports. The U.S. government demanded that foreign shipping companies be allowed to negotiate directly with Japanese stevedore companies to unload their ships, thus giving carriers a way around the restrictive practices of Japan's stevedore-company association. After consultation between the two governments, an agreement was reached to liberalize port services in Japan. As a result, the United States rescinded its ban against Japanese ships.

Summary

1. With the decline in import tariffs in the past two decades, nontariff trade barriers have gained in importance as a measure of protection. Nontariff trade barriers include such practices as (a) import quotas, (b) orderly marketing agreements, (c) domestic content requirements, (d) subsidies, (e) antidumping regulations, (f) discriminatory government procurement practices, (g) social regulations, and (h) sea transport and freight restrictions.
2. An import quota is a government-imposed limit on the quantity of a product that can be imported. Quotas are imposed on a global (worldwide) basis or a selective (individual country) basis. Although quotas have many of the same economic effects as tariffs, they tend to be more restrictive. A quota's revenue effect generally accrues to domestic importers or foreign exporters, depending on the degree of market power they possess. If government desired to capture the revenue effect, it could auction import quota licenses to the highest bidder in a competitive market.
3. A tariff-rate quota is a two-tier tariff placed on an imported product. It permits a limited number of goods to be imported at a lower tariff rate, whereas any imports beyond this limit face a higher tariff. Of the revenue generated by a tariff-rate quota, some accrues to the domestic government as tariff revenue and the remainder is captured by producers as windfall profits.
4. Orderly marketing agreements are market-sharing pacts negotiated by trading nations. They generally involve quotas on exports and imports. Proponents of orderly marketing agreements contend that they are less disruptive of international trade than unilaterally determined tariffs and quotas.
5. Because an export quota is administered by the government of the exporting nation (supply-side restriction), its revenue effect tends to be captured by sellers of the exporting nation. For the importing nation, the quota's revenue effect is a welfare loss in addition to the protective and consumption effects.
6. Domestic content requirements try to limit the practice of foreign sourcing and encourage the development of domestic industry. They typically stipulate the minimum percentage of a product's value that must be produced in the home country for that product to be sold there. Domestic content protection tends to impose welfare losses on the domestic economy in the form of higher production costs and higher-priced goods.
7. Government subsidies are sometimes granted as a form of protection to domestic exporters and import-competing companies. They may take the form of direct cash bounties, tax concessions, credit extended at low interest rates, or special insurance arrangements. Direct production subsidies for import-competing producers tend to involve a smaller loss in economic