## Chapter 9 Nontariff Barriers and the New Protectionism

"Nontariff barriers to trade (NTBS) are now perhaps as much as ten times more restrictive of international trade than tariffs."

Walters and Blake, The Politics of Global Economic Relations, 4th ed., 1992, p.37.

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## II. Chapter Summary and Review

An unintended consequence of the negotiated decrease in tariffs following WWII was the introduction of other types of trade restrictions that achieved similar objectives. These substitutes to tariffs are called **nontariff trade barriers (NTBs)** and the **new protectionism**. As the name suggests, NTBs include trade barriers other than tariffs, such as **quotas**, **voluntary export restraints (VERs)**, government regulations, **international cartels**, **dumping**, and **export subsidies**. Although the details of various NTBs differ, the effects are similar. NTBs either restrict imports or stimulate exports, and produce a misallocation of resources in the world.

A quota is a quantity restriction on the amount that is imported. In the absence of a quota, a nation can import at the world price any excess of domestic quantity demanded over domestic quantity supplied. Because a quota limits imports, the quota will create excess demand at the world price, causing the price of the good to increase in the domestic market. A quota that raises the price of a good by, say, \$2 is equivalent to a tariff of \$2, in that the effects on domestic quantity supplied, domestic quantity demanded, and the quantity imported are identical. The welfare effects of a quota will also be identical to that of a tariff, producing deadweight losses by restricting demand and shifting some production to higher-cost domestic suppliers. (This discussion makes the small-country assumption, but the similarity of quotas and tariffs also applies to large countries.)

A quota does differ from a tariff in two important respects. With a quota, any *increases* in domestic quantity demanded will produce different consumption, production and trade effects than a tariff. If demand increases when there is a quota on imports, then the excess demand will lead to an increase in the domestic price, leading domestic suppliers to fulfill the excess demand. If demand increases when there is a tariff on imports, then the excess demand can be satisfied by increasing imports at the world+tariff price. Thus, an increase in demand in the presence of a quota leads to increased domestic prices and domestic production with no change in imports, while an increase in domestic demand in the presence of a tariff leads to no change in domestic production or prices, with the increased demand being satisfied by imports. As a special interest group, domestic producers would prefer quotas to tariffs if they expect demand for their products to increase.

The second important difference between quotas and tariffs is that a tariff

leads to tariff revenues for the importing country while a quota may or may not produce revenues to the importing country, depending upon how the quota is administered. A quota requires an allocation of import licenses to determine those who are allowed to buy scarce imports. If the import licenses are auctioned by government, then the license revenues will equal tariff revenues. If government officials distribute the import licenses freely, then the equivalent of tariff revenues will accrue to those who receive the licenses because the licenses allow importers to buy at the world price, but because of restricted domestic supply, imports can be sold at the higher domestic price. These profits could also lead to expensive lobbying efforts, the cost of which would dissipate the profits or to outright bribes to government officials.

Similar to quotas are voluntary export restraints (VERs), also known as orderly marketing arrangements. Voluntary export restraints are essentially import quotas that the importing country asks the exporting nation to administer by restricting its exports. The only difference between a quota and a VER is the license revenues will accrue to the foreign nation. Whether the foreign government or the exporting firms in the foreign nation gain depends upon how the licenses are allocated by the foreign government.

Because the exporting nation is asked to restrict exports, a VER may be more politically palatable than a unilaterally imposed quota, but the VER does have a unique effect. A VER limits the exports of one country to another. This creates an excess demand in the importing country that may be met by other exporting nations or by transshipment. Transshipment occurs when an exporting nation ships to a third country, which then ships to the nation attempting to limit imports, for the purpose of avoiding the VER. If, for example, Japan agrees to a VER with the U.S., then the VER will break down if other nations ship the same product to the U.S., or if Japan ships the product to Canada, which ships to the US. If other nations can export and/or transshipment occurs, the VER will either break down or evolve into a more comprehensive agreement.

Interestingly, a VER on automobiles, like a quota, produces an incentive for the exporting nation to produce and export higher priced automobiles that generate a higher profit. The VER between Japan and the United States on automobiles may be partly responsible for Japan's shift to the production of luxury automobiles for the export market.

Government regulations also act like quotas when they restrict imports of products not meeting local regulations. Safety and health regulations are

particularly troublesome because although they may be motivated by genuine social concerns, they do protect local producers and will be supported by special interest groups. Government procurement policies have the same kind of effects as tariffs when they require governmental agencies to favor local producers even when local producers are higher-cost producers. To force government agencies to buy local may be expensive.

Border taxes also act like tariffs by rebating excise and sale taxes to products exported, but are imposed on imports. Many European countries raise government revenues through a value-added tax (VAT) tax, which is similar to a sales tax. If the product is exported, the VAT tax is rebated to exporters, while imports are charged the VAT tax. Because the United States uses an income tax to raise most government revenues, the European border tax is greater than the U.S. border tax. U.S. exporters will receive little rebate upon export, but will be subject to the larger VAT tax, as well as applicable tariffs, when exporting to European countries.

The policy of imposing trade barriers is often justified as a response to perceived or suspected dumping by other nations, whether or not dumping actually occurs and whether or not the effects of dumping are actually harmful. Dumping by a nation, say Nation 1, is defined as selling in Nation 2 below Nation 1's cost of production or as selling in Nation 2 at a price lower than the sale of the same good in Nation 1. In order for a good to be sold in two nations at difference prices, there must be some barrier to trade. In the absence of barriers to trade, buyers would buy in the low price nation and sell in the high price nation. The demand in the low-price nation would increase the price while the supply in the high-price nation would reduce the price until prices were equalized.

Dumping can be classified according to its frequency and intent. **Sporadic dumping** is the occasional export of goods at prices lower than home prices (or costs). Sporadic dumping is most likely motivated by overestimates of sales in foreign markets. Once goods are shipped, it may be more profitable to unload inventories in foreign warehouses by lowering the price than by shipping the goods back to the home market. Sporadic dumping does not represent intent to do harm in foreign markets and is no more harmful to producers in foreign countries than inventory sales by their own competitors.

Ongoing dumping, known as "persistent dumping," is price discrimination. Price discrimination occurs when the price elasticity of demand differs in different markets. An example of price discrimination is the charging of

different prices to different students at colleges and universities. Although each college has a stated cost of tuition (sticker price), the amount actually charged to each student can differ depending upon the student's circumstances. Students with higher income, *ceteris paribus*, are generally charged higher net tuition. Families of students with higher income have a lower price elasticity of demand (response to price changes) because they can more easily afford higher prices. Low income families of students are forced to respond to higher prices and seek alternatives because of their financial situation. Low income families of students have a higher price elasticity of demand.

Price discrimination charges the price in each market that maximizes total profit. International price discrimination —persistent dumping— occurs whenever price elasticities of demand vary across countries. If domestic consumers generally prefer local goods (home-market bias) then the price elasticity of demand will be lower in local markets than in foreign markets. This produces an interesting pattern of international prices. An exporting nation will charge a higher price to its citizens than to foreign consumers of the same good. Whatever the cause of international price discrimination, it is based on different price elasticities of demand and the response to market conditions rather than to inflict harm foreign countries.

**Predatory dumping** is the category of dumping into which any kind of dumping is usually and inappropriately classified. The common explanation is that a foreign producer sells at a low price in the local market, incurring losses, for the purpose driving local producers into bankruptcy, leaving a monopoly to the foreign predator. In order for predatory dumping to occur, however, a number of unlikely conditions have to be present. First, it has to be assumed that once local competitors are driven out of the market, that some barriers prohibit their return. What is to stop local competitors from waiting out the foreign producer, which is weakened by losses, and re-entering the market? Next, it has to be cheaper for the foreign predator to incur losses while driving out local competitors than to simply buy out local competitors at a fair price. Finally, it has to be assumed that foreign producers that dump can incur greater losses than local competitors. If predatory dumping has long-term net benefits, then why is not to the benefit of domestic to do the same and drive out foreign producers?

It is important to recognize that if foreign firms can sell a good cheaper than local firms because foreign costs are lower, then it is not dumping but simply the principle of comparative advantage at work. Dumping of agricultural goods does, however, occur regularly as a result of government price supports. If a domestic price floor is established for a good, then the resulting surplus of the good is often sold in foreign markets so as to maintain the high domestic price.

A form of dumping is also created by **export subsidies**. Export subsidies can take many forms, including price floors for agricultural products, low interest loans for foreign countries and firms to buy domestic exports, and explicit government payments based on the quantities that firms export. (Note that subsidies and export subsidies are different, but have similar effects. Subsidies pay producers for all units produced; export subsidies pay producers for units exported.)

Because an export subsidy, of whatever form, provides an extra payment for export, domestic firms are receiving a higher price if they export. This will force domestic prices up because firms will no longer be willing to sell domestically unless the price increases to reach the foreign price plus subsidy. This higher price increases the total amount sold by domestic firms (the intent of the subsidy) and reduces the amount consumed domestically, leaving a greater amount to be exported.

Although domestic producers gain by the higher price, part of that gain comes directly from consumers facing the higher price. In addition, taxpayers fund the gains by producers. The net result is a deadweight or efficiency loss to the nation subsidizing the exports (resource misallocation). The actual price at which goods are being sold equals the world price; domestic producers receive a higher price only because of the subsidy. The cost of the additional goods sold by domestic producers is not justified by the world price. In addition, some goods are diverted away from domestic consumption that was previously beneficial to both domestic producers and consumers. In essence, a gift is given to foreign buyers in order for domestic producers to gain, despite the net losses. For a large country, export subsidies carry the additional cost of deterioration in the terms of trade.

Despite the standard arguments presented against trade barriers, as partially presented in this and the last chapter, public sentiment often favors restricted trade. If a nation does indeed gain from trade, why is public sentiment often opposed to the expansion of international trade? One possibility is the special-interest argument. Although trade may produce a net gain, there are losers. The lowering of import barriers hurts domestic producers, so they have a

stake in maintaining trade barriers. On the other hand, consumers gain from cheaper imports, and gain more than producers lose, so we should hear more consumer voices favoring trade than producer voices opposing trade. Consumer voices do not drown out producer voices because of the distribution of gains. As a result of freer trade, each of the *many* consumers may gain a small amount, but the *few* producers each lose a considerable amount, with the total gained by the many consumers exceeding the losses by the few producers. With each consumer gaining only a small amount, there is little motivation for each consumer to lobby government, whereby individual producers facing substantial individual losses have a definite incentive to influence policy.

There are also some arguments for protection that make some economic sense. One of the most popular arguments in favor of protection is the **infant industry argument**. The argument is that protection is necessary for a domestic industry to gain the expertise necessary to realize a true comparative advantage. To the extent that the argument is true, a temporary tariff is needed until the industry gains its competitive edge. The permanent gains to the industry that develops its true comparative advantage will pay for the temporary losses to consumers caused by the protection.

The infant industry argument is subject, however, to a number of qualifications. A qualification to any argument for protection, reasonable or not, is that it cannot be assumed that foreign nations will passively accept sanctions against its products. Foreign retaliation through trade barriers is a definite and likely possibility. Another universal qualification to a tariff in any one industry is that it is unlikely that government can consistently pick out the true infant industries. If the infant industry argument is accepted, then many industries will claim infant status and petition government for protection from foreign competitors.

More specific to the infant industry argument is the possibility of using borrowed funds to expand. If an industry will indeed become profitable upon expansion, then private funds could fund the industry's expansion. Private funds for investment projects are provided on the basis of a sound business plan. If expansion is profitable and can be substantiated, then private funds will generally be forthcoming. Why is government policy needed to protect? Only if internal capital markets do not function well, as may be the case in developing countries, does government policy become necessary. But the appropriate policy is not necessarily an import restriction. A general subsidy (not an export subsidy) will achieve the same results as an import restriction without increasing the price of

goods to consumers. With a subsidy there is still an efficiency loss in the current period due to high-cost domestic production that replaces low-cost foreign production, as with a tariff, but there is no efficiency loss to consumers due to the high prices caused by tariffs.

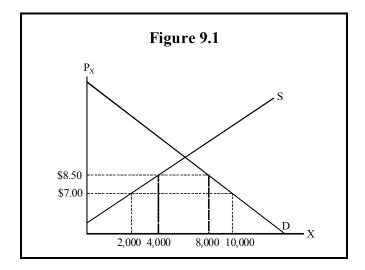
Another valid argument for protection is the optimum tariff argument discussed in the previous chapter. There is still, however, the threat of foreign retaliation, and an optimum tariff is not optimal from a global perspective because it misallocates resources. The gains by the nation imposing the optimum tariff are exceeded by the losses of trading partners.

There are some relatively recent developments in trade theory, known as **industrial trade policy and strategic trade policy**, both of which establish possible gains from protectionism. For industries with significant external economies (see Appendix A6.1 in *International Economics* on external economies), government intervention (industrial policy) may be necessary to realize such economies.

For oligopolistic markets, government subsidies can shift economic profits, net of the subsidy, to the domestic economy by changing the payoffs to domestic firms. These arguments, which may be popular in political circles, are internally consistent, but still assume that governments can pick winners and that foreign nations will not retaliate.

## III. Questions

**1.** Fig. 9.1 shows the domestic supply and demand for X in a small country facing a world price of \$7.00. An import quota of 4,000 units is imposed.



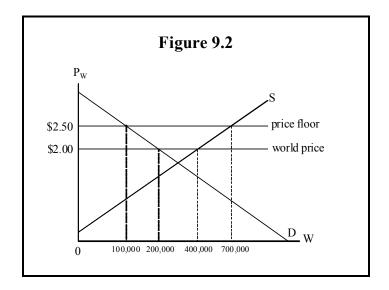
- a) To enforce the quota, import licenses are auctioned to import good X. Each license allows the license owner to import 10 units of good X. Calculate how much will importing firms be willing to pay for each license, based on the numbers given in Fig. 9.1.
- b) Calculate the total revenues that will be earned through the auction of import licenses.
- c) Calculate the welfare cost of the quota to the importing country.
- d) Instead of auctioning the quotas to domestic importing firms, the governments of foreign countries that export the good are asked to voluntarily restrict their exports to 4,000 units. Calculate the welfare cost of this VER to the importing country.
- e) In part d, you (hopefully) found that the welfare cost of a VER exceeds that of a simple quota. Why, then, would a country consider a VER for protection rather than a quota?
- f) What is the dollar tariff per unit that will produce the same production and consumption effects as the import quota of 4,000 units?

- g) If the industry producing Good X is a declining industry, for which domestic demand can be expected to fall in the future, would the producers of Good X prefer a quota or a tariff?
- **2.** Two oligopolists (a duopoly), one based in Europe (E) and one based in Asia (A), are considering producing a new product for markets outside their own countries. Any profits generated from the new product will accrue domestically. The oligopolists face the payoffs, given in billions of dollars, shown in Table 1. The first number in each cell is E's payoff, the second is A's payoff.

		Table 1	
		Α	
		Produce	Do Not
			Produce
E	Produce	-1, -1	2, 0
	Do Not Produce	0, 2	0, 0

- a) Explain why the numbers in Table 1 make economic sense.
- b) Is there a dominant strategy for E? (A dominant strategy for E is one that E will pursue no matter what strategy A chooses.)
- c) Is there a dominant strategy for A?
- d) Suppose that A moves first and chooses to produce. What is E's optimal strategy?
- e) What is the minimal government subsidy that could be offered E that would make E enter the market?
- f) Would this subsidy enhance national welfare?
- g) Suppose E's government, without the benefit of the above precise table, offers a subsidy of \$3 billion to E. Will E enter the market and will this enhance national welfare?

- h) Suppose A's government and E's government, with the benefit of the above precise table, compete for profits with subsidies. Up to what level will the subsidies be competed, and what will the gains be to each nation after the other nation drops out of the bidding?
- **3.** A price-support system for wheat is introduced for the purpose of increasing wheat growers' incomes. The price support is simply a price floor set above the current world price for wheat. The current world price is \$2.00, and the price support is set at \$2.50, both of which are shown in Fig. 9.2, along with the domestic supply and demand curves. All excess domestic production is exported, and has no effect on the world price. (Note that the text analyzes an export subsidy; this problem addresses a variation of that analysis.)



- a) Calculate the dollar value of total taxes necessary to fund the subsidy. (Notice that the price floor applies to *all* production and not just exports.)
- b) Using the numbers in Fig. 9.2, calculate the change in producer surplus due to the price support.
- c) Using the numbers in Fig. 9.2, calculate the change in consumer surplus due to the support.
- d) Using the numbers in Fig. 9.2, calculate the net effect of the price support program on national welfare.

- e) You should have found a net loss in national welfare in part d. Despite this net loss, why will the price support policy be likely to receive more support than resistance?
- **4.** Local manufacturers of computer hardware have charged a number of Asian firms with dumping add-on equipment in the U.S. market. Upon further investigation, it is established that the equipment is indeed being sold in the U.S. market at a price lower than that charged in the foreign manufacturers' own market.
- a) Is this dumping necessarily intended to inflict harm on the U.S. add-on market?
- b) Does this dumping necessarily harm the United States?
- c) What might make you skeptical about claims that this is predatory dumping?
- d) Even if this were predatory dumping, is anti-dumping legislation necessarily optimal?
- **5.** Local manufacturers of computer hardware have charged a number of Asian firms with dumping add-on equipment in the U.S. market. Their claim is that the Asian firms are selling below U.S. prices. Evaluate this evidence for dumping.
- **6.** a) What are the historical circumstances motivating the creation of GATT?
- b) What might explain the increase in nontariff barriers in the world since WWII?
- c) How did this increase in nontariff barriers affect the Uruguay Round negotiations?
- **7.** According to *International Economics* (Section 9.4c) the textile and auto industries are highly protected in the U.S. What might explain why these industries receive protection?