Column 3 provides the increase in consumer surplus that would result from removing the barriers, column 4 provides the decrease in producer surplus, and column 5 the deadweight loss that would be transferred back to domestic consumers. Columns 6 and 7 show the costs of protecting the average job in the industry in terms of consumer costs and losses of economic efficiency.

As you can see in the table, the costs of protecting these domestic industries are very high. More importantly, the loss of economic efficiency makes the cost of preserving a single domestic job very expensive—more expensive than the income that each worker would typically receive. In the United States, for example, the annual cost to consumers from preserving a job in the women's handbag industry is nearly $200,000, which is considerably more than what the average worker receives in the industry.

In the case of the United States, the study found that the average annual cost to consumers of preserving a job across all industries was $170,000. It would actually be cheaper to buy the imported goods and pay idle workers their salaries than to protect the domestic industry.

What are the advantages and disadvantages of trade barriers?

There are many explanations for why policymakers resort to trade barriers. One commonly held view is that domestic firms and workers that benefit from trade protection are better organized than the consumers who pay the costs of protection. Because they are well organized, firms and workers can lobby policymakers more effectively. A first-best policy is a policy that deals directly with the problem the policy is designed to remedy. Trade barriers are second-best policies because they only indirectly deal with the problems that policymakers seek to remedy. As second-best policies, trade barriers are costly to domestic consumers and entail considerable losses of economic efficiency.

CHAPTER SUMMARY

1) The Effect of Taxes on Domestic Price, and the Redistributive Effects of Taxes: The imposition of a tax causes the supply of a good or service to decrease. This decline in supply generates an increase in the market price. Although the market price rises, it typically does not rise by the full amount of the tax. Because the tax influences market outcomes, it has redistributive effects. A tax is forward shifted if the consumer must pay the tax in the form of a higher price per unit. A tax is backward shifted if producers must pay the tax in the form of a lower price per unit.

2) Economic Effects of Tariff Barriers: A specific tariff is calculated as a fixed tariff amount per unit, whereas an ad valorem tariff is calculated as a percent of the value of the good or service. A combination tariff consists of a specific tariff component and an ad valorem component. A tariff imposed by policymakers in a small country does not affect the global price. As a result, the domestic price rises by the full amount of the tariff, and the entire tariff is
forward shifted to domestic consumers. A tariff imposed by policymakers in a large country may cause the global price to decline. In this setting, part of the tariff is forward shifted to domestic consumers and part is backward shifted to foreign producers. It is in this sense that a large-country tariff is a beggar-thy-neighbor policy. For both small and large countries, a tariff results in net welfare losses, either at home or abroad.

3) **Quotas as a Direct Approach to Restricting Trade:** An import quota is a policy limiting the amount of a good or service that can enter a country during a specified time period. A quota directly affects the quantity of imports, whereas a tariff indirectly affects the quantity of imports by first affecting the price. An absolute quota establishes a quantitative limit. A tariff-rate quota allows a specific quantity to enter the country at a reduced tariff rate. If the government collects the quota rent in the form of an import license, then a quota and an equivalent tariff have identical redistributive effects.

4) **Voluntary Export Restraints:** A voluntary export restraint (VER) is an informal agreement between policymakers and producers in two nations to restrict the quantity of a product exported from one nation to the other. Because they are voluntary agreements, VERs typically do not come under the scrutiny of regional and multilateral trade agreements. The price, quantity, and distributive effects of VERs are similar to those of a quota. One important difference between a quota and a VER is that the quota rent is always transferred to foreign producers.

5) **Effects of an Export Subsidy, and the Reaction of Policymakers to Export Promotion Policies:** An export subsidy is a payment to a firm for exporting their output as opposed to selling it in the domestic market. Governments design export subsidies to increase the revenue of domestic firms. From the perspective of firms and consumers in the importing country, export subsidies have effects similar to the removal of a tariff, because they increase supply in the global market and drive down the domestic price. The decrease in domestic price results in an increase in domestic consumer surplus and a decrease in domestic producer surplus. Often policymakers will answer the claims of dumping and unfair trade by domestic industry and labor groups by imposing a countervailing duty (CVD). A CVD is intended to offset the effect that an export subsidy has on domestic price.

6) **Advantages and Disadvantages of Trade Barriers:** One explanation for why policymakers continue to use trade barriers in spite of their high costs is that the groups that benefit from trade protection are highly organized, while those that pay the costs of protection are not. Because they are highly organized, firms and labor groups can effectively lobby for protection. A first-best policy deals directly with the problem the policy is designed to remedy. Trade barriers are second-best policies that deal indirectly with the problem that policymakers seek to remedy. Hence, trade barriers entail greater economic inefficiencies and are costly. Recent studies of the costs of protection show that on average, the cost of preserving a job in a protected industry typically is much greater than the income received by the worker whose job is saved.
QUESTIONS AND PROBLEMS

1) Suppose that policymakers eliminate tariffs on imported pharmaceuticals. For a specific drug, the tariff originally was $0.60 per unit, and the domestic price with the tariff in place was $2.90. Now, under free trade, the domestic price is $2.50. With the tariff, the domestic quantity demanded was 14 million units, and domestic quantity supplied was 6 million. Now under free trade, the domestic quantity demanded is 20 million, and the domestic quantity supplied is 4 million.

(a) Is the country in question a large country or a small country? Explain your answer.
(b) Illustrate this example in a supply and demand framework for the home country and the international market.

2) Using the diagram you constructed in question 1, answer the following questions.

(a) What is the value of the gain to the domestic consumers due to the removal of the tariff?
(b) What is the value of the loss to the domestic producers due to the removal of the tariff?
(c) What is the value of the loss of tariff revenue due to the removal of the tariff?

3) In questions 1 and 2, does the home country experience a net welfare gain or loss from the removal of the tariff?

4) Is the statement, "A tariff on imports always leads to a reduction of domestic welfare," true, false, or uncertain? Explain your answer.

5) Consider the following situation for a nation in a small-country setting that has an import quota on men's shirts.

<table>
<thead>
<tr>
<th></th>
<th>With Quota</th>
<th>Free Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>$45</td>
<td>$30</td>
</tr>
<tr>
<td>Quantity Purchased</td>
<td>1 million</td>
<td>1.2 million</td>
</tr>
<tr>
<td>Domestic Quantity Supplied</td>
<td>400,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Quota</td>
<td>600,000</td>
<td>None</td>
</tr>
</tbody>
</table>

(a) Illustrate the effects of the quota in a supply and demand framework.
(b) Indicate in your diagram and calculate:
   i. The loss of consumer surplus
   ii. The gain in domestic producer surplus
   iii. The deadweight losses
   iv. The quota rent
6) Suppose that policymakers in the nation depicted in question 5 would like to switch from a quota to a tariff. What is the equivalent tariff rate for a specific tariff? For an *ad valorem* tariff? What benefits would there be to switching from a quota to a tariff?

7) Suppose that, to protect domestic producers from “unfair” competition, policymakers impose a countervailing duty on imported automobiles. Should domestic automakers receive the duty? Why or why not?

8) Suppose that under free trade, the global price of automobiles is $20,000. At this price, the quantity supplied in a small country, Country 1, is 750,000. Producers in Country 2 supply 500,000 autos to consumers in country 1 and producers in Country 3 supply 2.25 million autos to consumers in Country 1. Now suppose that policymakers in Country 1 and Country 3 agree to a VER that restricts the quantity of automobiles exported from Country 3 to Country 1 to 1 million. Because of the VER, the price in Country 1 rises to $25,000, the quantity supplied by producers in Country 1 rises to 1.25 million, and the quantity supplied by producers in Country 2 rises to 550,000.
   (a) Diagram the situation described above in a supply and demand framework for Country 1.
   (b) Who benefits from the VER? Who is harmed?

9) Each year consumers of a small country purchase 1 million pounds of sugar at the global price of $1.50 per pound. Domestic firms produce 500,000 pounds and domestic consumers import the remainder. Policymakers of the world’s major supplier of sugar begin an export subsidy program that rewards firms for exporting sugar. This program causes the global price of sugar to drop to $1 per pound. The domestic quantity demanded in the small country climbs to 1.3 million pounds, and the domestic quantity supplied falls to 300,000 pounds.
   (a) Diagram the small-country market for sugar under free trade and with the export subsidy in place.
   (b) Calculate the loss of domestic producer surplus and the increase in domestic consumer surplus.
   (c) What is the total value of the subsidy in the small-country market?
   (d) Can you identify any deadweight losses?

10) Based on the information in question 9, what is the *ad valorem* countervailing duty rate that would restore the domestic price in the small country to its free trade level? Who do you think is entitled to the revenue generated by the countervailing duty?
ONLINE APPLICATION

Internet URL: http://dataweb.usitc.gov

Title: U.S. International Trade Commission Interactive Tariff and Trade Data Web

Navigation: Start at the home page for the U.S. International Trade Commission’s Interactive Tariff and Trade Data Web (http://dataweb.usitc.gov). Scroll down to “Current Tariffs” and click on the most recent annual “Tariff Database.” Click on “Yes, go to USITC Tariff Database.”

Application: Suppose that, before enrolling in a course on international economics, you purchased a notebook that cost $3.00, a mechanical pencil that cost $5.00, and a backpack that cost $30.00, and that all three items were imported. Perform the following operations, and answer the following questions.

1) At the query window of the USITC Database enter notebook or 48201020. Click on detail. Record the “NTR Duty Rate” for a notebook.

2) Click your browser’s back button twice. Enter pencils in the query window. Click on the first category, numbers 96084040. Record the “NTR Duty Rate” for a mechanical pencil.

3) Click your browser’s back button twice. Enter 42029230 in the query window. Click on “Detail.” Record the “NTR Duty Rate.”

4) Based on the tariff rates you retrieved, what is the total amount that you paid in tariffs?

For Group Study and Analysis: Calculate the total amount of tariffs paid by the class. (In other words, multiply your answer to 4 above by the number of students in the class.) Divide into three smaller groups. One group should represent consumers, another should represent domestic producers, and the third should represent foreign producers. Debate the costs and benefits of the tariffs on these three items.
REFERENCES AND RECOMMENDED READINGS


Bergsten, Fred. “Globalizing Free Trade.” Foreign Affairs 75 (3) (May-June 1996): 105-120.


CHAPTER FIVE

Regionalism and Multilateralism

Fundamental Issues

1. What are the main types of regional trade agreements, and how do economists measure trade within regional trading groups?

2. How is a free trade area such as the North American Free Trade Agreement different from other types of preferential trade arrangements?

3. What distinguishes customs unions such as the European Economic Community of the 1970s and the current Andean Community from common markets such as the European Union and Mercosur?

4. How can regional trading arrangements lead to both trade creation and trade diversion?

5. What is trade deflection, and how do rules of origin help to limit the extent to which trade deflection occurs?

6. How do multilateral trade agreements contrast with regional trade arrangements?

To its proponents, the time was right to seriously consider a proposal whose time they believed had come. To its opponents, the time had finally arrived to reject an especially zany idea. At the request of the Senate Finance Committee, the U.S. International Trade Commission, a federal agency that makes trade recommendations to both the president and Congress, held special hearings in 2000 to consider the proposal to allow another nation to join the United States, Canada, and Mexico within the North American Free Trade Agreement (NAFTA). This island nation once fought two wars against the United States. Nevertheless, it has for some time had a particularly close political and economic relationship with Canada, and its relationship with the United States is also very close. The nation is the United Kingdom.
The United Kingdom was not the first country from outside North America to be considered for membership in NAFTA. Just a few years earlier, there had been serious discussion of admitting Chile into the free-trade area. That idea has never completely been ruled out, but it failed to attract sufficient interest to advance beyond the “consideration” stage. Proponents of NAFTA membership for the United Kingdom were hopeful that they could push their idea much further.

Even as the International Trade Commission's hearings commenced, officials within the U.S. and U.K. governments were casting cold water on the idea, and so far, the idea has not progressed to the stage of a formal proposal. Nevertheless, a few important leaders in the U.S. Congress and the U.K. Parliament have continued to push for formal consideration of U.K membership in NAFTA. To British enthusiasts, NAFTA membership would make it easier for the United Kingdom to avoid becoming politically entangled in the European Union (EU) while reaping benefits of broadened trade with both continental Europe and North America. U.S. proponents also have broad strategies in mind: They believe that bringing the United Kingdom under the NAFTA umbrella would help to restrain alleged protectionist leanings of the EU. British entry into NAFTA, they argue, would force the EU to drop rules giving its central body, the European Commission, sole power to negotiate trade deals on behalf of its members.

Would it make sense for European or South American nations to be part of the North American Free Trade Agreement? To evaluate this question, you must first understand the issues raised by regional trading agreements such as NAFTA. As you will learn, such trading arrangements can potentially either encourage or discourage international trade.

Regional Trade Blocs

During recent years there has been a proliferation of special trade deals among nations granting trade preferences in the form of reduced or eliminated tariffs, duties, or quotas. There are currently more than 130 bilateral or regional trade agreements in effect around the globe.

REGIONAL TRADE AGREEMENTS

Nearly half of the current regional trade agreements were adopted after 1990, and a number of these establish regional trade blocs, or countries that have granted preferential trade status to one or more nations.
There are five basic types of regional trade agreements.

1) **Preferential trade arrangements**: The least restrictive sort of regional trade agreement is a preferential trade arrangement, under which a nation grants partial trade preferences to a set of trading partners. Often a preferential trade arrangement is one-sided. In some cases, however, nations can form reciprocal arrangements. These entail the establishment of equal trade preferences among two or more trading partners.

2) **Free trade area**: One type of reciprocal trade arrangement is a regional trade agreement that establishes a free trade area. Within a free trade area, participating nations agree to remove all trade barriers. Each nation, however, retains its own barriers to trade with countries outside the free trade area.

3) **Customs union**: When nations participating in a regional trade agreement go beyond removing trade barriers among themselves and adopt common barriers to trade with other countries, then they have established a customs union. To ensure equivalent trade policies, members of a customs union must establish elaborate coordination schemes. In principle, therefore, a customs union entails a more significant commitment as compared with a free trade area.

4) **Common market**: Preferential trade arrangements, free trade areas, and customs unions establish rules breaking down barriers to cross-border trade in goods and services. When countries also agree to remove barriers to free movement of factors of production, they have created a common market. Thus, nations that form a common market agree to open cross-border flows of both final outputs of goods and services and inputs used in production.

5) **Economic union**: The next step beyond freeing up cross-border flows of goods, services, and factors of production is to coordinate uniform national economic policies. Countries that take this next step have established an economic union. Political union is not technically a prerequisite to economic union, but successful implementation often requires considerable political coordination among participating nations.

Economists are divided about whether this trend toward regionalism—the formation of trading agreements among geographic groupings of countries—promotes or discourages trade. Before you can understand why this is an issue, you must first understand how economists measure trade among regional trade blocs. You must also have a broader background on how the various types of regional trading groups function.

### MEASURING HOW MUCH REGIONALISM MATTERS FOR TRADE

How much trade takes place among members of regional trading groups? Trying to answer this question first requires considering how to measure the extent of a nation’s trade with the rest of the world.