Global Economic Issues and Policies

First edition

UNIT TWO
International Trade: Enduring Issues

Chapter 4
Regulating International Trade—Trade Policies and Their Effects

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PowerPoint Presentation by Charlie Cook
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Fundamental Issues

1. How do taxes affect the market price, and what are the redistributive effects of taxes?

2. What are tariffs, and what are the economic effects of tariff barriers?

3. What are quotas, and how do they represent a direct approach to restricting trade?

4. What are voluntary export restraints?
Fundamental Issues

5. What are the effects of export subsidies, and how do policymakers typically react to export promotion policies?

6. What are the advantages and disadvantages of trade barriers?
Taxes and Their Direct Effect on Price

• Tariff
  ➢ A tax on imported goods and services.

• Forward Shifted Taxes
  ➢ The portion of a tax that consumers pay in the form of a higher price per unit.

• Backward Shifted Taxes
  ➢ The amount of a tax that producers pay in the form of lower revenue per unit.

• Tax Revenue
  ➢ The amount of taxes that are forward shifted and the amount of taxes that are backward shifted.
### The Supply Schedule of a Running Shoe Manufacturer

<table>
<thead>
<tr>
<th>Price (per pair)</th>
<th>Quantity (pairs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$72.50</td>
<td>750</td>
</tr>
<tr>
<td>$75.00</td>
<td>1,000</td>
</tr>
<tr>
<td>$77.50</td>
<td>1,250</td>
</tr>
<tr>
<td>$80.00</td>
<td>1,500</td>
</tr>
<tr>
<td>Price (per pair)</td>
<td>Pre-Tax Quantity</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>$72.50</td>
<td>750</td>
</tr>
<tr>
<td>$75.00</td>
<td>1,000</td>
</tr>
<tr>
<td>$77.50</td>
<td>1,250</td>
</tr>
<tr>
<td>$80.00</td>
<td>1,500</td>
</tr>
</tbody>
</table>
Figure 4-1  The Effects of a Tax

[Graph showing the effects of a tax on supply and demand. The graph includes a demand curve and a supply curve, intersecting at point B. The tax shifts the supply curve upward, creating a gap between the demand and supply curves at point A, indicating a decrease in quantity and an increase in price.]
Types of Tariffs

• Specific Tariff
  ➢ A tariff specified as an amount of money per unit of the good sold.

• Ad Valorem Tariff
  ➢ A tariff calculated as a percentage of the value of the good or service.

• Combination Tariff
  ➢ A tariff that combines an ad valorem tariff and a specific tariff.
<table>
<thead>
<tr>
<th>Item</th>
<th>Ad Valorem Tariff (percent)</th>
<th>Specific Tariff (dollar amount per unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass Shears and Parts Thereof</td>
<td>45</td>
<td>$0.20</td>
</tr>
<tr>
<td>Carpets and Other Textile Floor Coverings: Of Wool or Fine Animal Hair</td>
<td>6.2</td>
<td>0</td>
</tr>
<tr>
<td>Floor Coverings of Coconut Fibers</td>
<td>0</td>
<td>$1.29</td>
</tr>
<tr>
<td>Capers</td>
<td>8.0</td>
<td>0</td>
</tr>
<tr>
<td>Mushrooms</td>
<td>20</td>
<td>$0.088</td>
</tr>
<tr>
<td>Cigars</td>
<td>4.7</td>
<td>$1.89</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>0.9</td>
<td>$0.417</td>
</tr>
<tr>
<td>Pre-Shave, Shaving, or After-Shave Preparations</td>
<td>4.9</td>
<td>0</td>
</tr>
<tr>
<td>Lawn Tennis Rackets, Strung</td>
<td>5.3</td>
<td>0</td>
</tr>
<tr>
<td>Bicycles</td>
<td>11.0</td>
<td>0</td>
</tr>
</tbody>
</table>


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Benefits and Weaknesses of Tariffs

• Specific Tariffs
  ➢ Advantage
    ❖ Easy to calculate.
  ➢ Disadvantage
    ❖ Does not adjust to price changes.

• Ad Valorem Tariffs
  ➢ Advantage
    ❖ Always amounts to the same percentage of the value of the good or service.
  ➢ Disadvantage
    ❖ More difficult to calculate.
Effects Of A Tariff In A Small-Country Setting

- Small Country
  - A country so small its consumption and production decisions do not affect the international price, so that its residents take the international price as a given.
Effects Of A Tariff In A Small-Country Setting (cont’d)

• The Price Effect of a Tariff in a Small-Country Setting
  ➢ The domestic price that consumers must pay equals the global price plus the amount of the tariff.
  ➢ The domestic price paid by domestic consumers and the revenue received by domestic producers rises by the full amount of a tariff.
  ➢ The quantity demanded declines and quantity supplied by domestic producers increases, the tariff causes the quantity of imports to shrink.
Effects Of A Tariff In A Small-Country Setting (cont’d)

• Forward and Backward Shifting of the Tariff in a Small-Country Setting

➤ The revenue per unit that domestic producers receive increases, so none of the tariff is backward shifted to domestic producers.

➤ The revenue per unit that foreign producers receive after paying the tariff remains the same, so none of the tariff is backward shifted to foreign producers.

➤ Domestic consumers pay the entire (forward-shifted) tariff in the form of higher prices of foreign products they purchase.
Effects Of A Tariff In A Small-Country Setting (cont’d)

• Redistributive Effects of a Tariff in a Small-Country Setting
  ➢ Deadweight loss
    ✷ A loss of consumer or producer surplus that is not transferred to any other party and that represents a decline in economic efficiency.
  ➢ Economic efficiency
    ✷ A condition when scarce resources are allocated in a most productive, least-cost pattern.
Figure 4-2  The Small-Country Tariff

[Graph showing the small-country tariff with labeled axes: Price (per ton) and Quantity (thousands of tons). The graph illustrates the impact of a tariff on the domestic market, showing the domestic supply curve ($S_{DOM}$) and the global supply curve ($S_{Global}$). The diagram highlights the changes in price and quantity due to the tariff.]
Effects Of A Tariff In A Large-Country Setting

• Large Country
  ➢ A large country’s market share is sufficiently large that the production and consumption decisions of its residents affect the global prices of goods and services.

• The Price Effect of a Tariff in a Large-Country Setting
  ➢ Imposing a tariff causes domestic prices to rise, which reduces the domestic quantity demanded and increases the domestic quantity supplied, thereby reducing imports.
Effects Of A Tariff In A Large-Country Setting (cont’d)

• Forward and Backward Shifting of a Tariff in a Large-Country Setting
  ➢ Part, but not all, of a tariff is forward shifted to domestic consumers.
  ➢ The remaining portion of the tariff is backward shifted to the foreign producers.

• Beggar-Thy-Neighbor Policy
  ➢ A policy action that benefits one nation’s economy but worsens economic performance in another nation.
Effects Of A Tariff In A Large-Country Setting (cont’d)

- Redistributive Effects of a Tariff in a Large-Country Setting
  - The increase in the domestic price generates a loss of consumer surplus.
    - Higher domestic producer revenues and surplus.
    - Tariff revenues gained by the domestic government.
    - Deadweight losses arise from the same types of inefficiencies created by a tariff in a small-country setting.
Figure 4-3  The Effects of a Tariff in a Large-County Setting

United States

Price (\$)

$230.00  $200.00  $180.00

Quantity (thousands of tons)

100  115  135  150

Japan

Price (\$)

$200.00  $180.00

Quantity (thousands of tons)

75  90  110  125

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The Economic Effects of Tariff Barriers

• Small-Country Setting
  - Tariffs do not affect global prices.
  - The entire amount of the tariff is forward shifted to domestic consumers.

• Large-Country Setting
  - Tariffs cause global prices to decline.
  - Part of the tariff is forward shifted to domestic consumers and part is backward shifted to foreign producers.

• A tariff always results in deadweight losses for both small and large countries.
Quotas: A Direct Approach to Restricting Trade

• Import Quota
  ➢ A policy that restricts the quantity of imports.

• Absolute Quota
  ➢ A quantitative restriction that limits the amount of a product that can enter a country during a specified time period.

• Tariff-rate Quota
  ➢ A quota that allows a specified quantity of a good to enter the country at a reduced tariff rate. Any quantity above that amount is subject to a higher tariff rate.
<table>
<thead>
<tr>
<th>Country</th>
<th>Cotton Gloves and Mittens (pairs)</th>
<th>Cotton Dresses</th>
<th>Men’s and Boy’s Knit Shirts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>7,398,029</td>
<td>847,690</td>
<td>2,611,936</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4,171,166</td>
<td>240,854</td>
<td>2,798,767</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2,799,960</td>
<td>623,415</td>
<td>1,545,593</td>
</tr>
<tr>
<td>Taiwan</td>
<td>514,862</td>
<td>122,400</td>
<td>818,999</td>
</tr>
<tr>
<td>Brazil</td>
<td>0</td>
<td>119,455</td>
<td>2,150,160</td>
</tr>
<tr>
<td>Pakistan</td>
<td>3,261,497</td>
<td>639,065</td>
<td>6,044,496</td>
</tr>
</tbody>
</table>

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Economic Effects Of A Quota

• Direct Effects on the Quantity of Imports and Indirect Effects on the Domestic Price

  ➢ By restricting imports, a quota increases the domestic price and expands the market share of domestic producers.
  ➢ The increase in price generates a rise in domestic quantity supplied and a decline in domestic quantity demanded.
Figure 4: The Effects of an Import Quota

The diagram illustrates the impact of an import quota on the market for blouses. The graph shows the supply and demand curves for domestic and global production, denoted as $S_{DOM}$, $S_{DOM} + Q$, and $S_{Global}$, respectively.

- The price of blouses is shown on the vertical axis, ranging from $30 to $35.
- The quantity of blouses is shown on the horizontal axis, ranging from 500 to 1,500 (thousands of blouses).

The shaded area represents the consumer surplus, indicating the benefits gained by consumers due to the price increase caused by the import quota.
Economic Effects Of A Quota (cont’d)

- Redistributive Effects of a Quota
  - Domestic prices rise and consumer surplus declines.
  - Part of consumer surplus is transferred to domestic producers in the form of higher revenues.
  - Part of consumer surplus is transferred to the foreign producers who fill the quota and receive a higher price per unit.
  - Deadweight losses occur as domestic producers shift scarce resources away from more efficient industries into quota-protected industries and consumers substitute away from quota-protected goods to less desirable substitutes.
## Table 4-5 The Costs of Protection

<table>
<thead>
<tr>
<th>Product</th>
<th>Change in Consumer Surplus</th>
<th>Change in Producer Surplus</th>
<th>Deadweight Loss</th>
<th>Cost of Preserving Job To Consumers</th>
<th>In Loss of Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar</td>
<td>1,497</td>
<td>($ millions)</td>
<td>285</td>
<td>5,059</td>
<td>964</td>
</tr>
<tr>
<td>Plywood</td>
<td>685</td>
<td>543</td>
<td>58</td>
<td>23,338</td>
<td>1,968</td>
</tr>
<tr>
<td>Motorcycles</td>
<td>1,746</td>
<td>635</td>
<td>137</td>
<td>56,721</td>
<td>4,460</td>
</tr>
<tr>
<td>Color Televisions</td>
<td>227</td>
<td>139</td>
<td>4</td>
<td>15,859</td>
<td>305</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td>(¥ billions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing</td>
<td>878.9</td>
<td>221.6</td>
<td>234.9</td>
<td>63.7</td>
<td>17.0</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>182.9</td>
<td>151.0</td>
<td>0.9</td>
<td>153.5</td>
<td>0.8</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>500.6</td>
<td>102.1</td>
<td>351.0</td>
<td>213.3</td>
<td>149.5</td>
</tr>
<tr>
<td>Semiconductor Devices</td>
<td>1,046.6</td>
<td>538.3</td>
<td>332.4</td>
<td>44.9</td>
<td>13.9</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td></td>
<td>(won billions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef</td>
<td>771</td>
<td>453</td>
<td>82</td>
<td>30</td>
<td>5</td>
</tr>
<tr>
<td>Milled Rice</td>
<td>3,469</td>
<td>3,102</td>
<td>367</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Dairy Products</td>
<td>1,289</td>
<td>1,066</td>
<td>94</td>
<td>241</td>
<td>49</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>29</td>
<td>24</td>
<td>1</td>
<td>139</td>
<td>24</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td></td>
<td>($ millions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women’s Handbags</td>
<td>148</td>
<td>16</td>
<td>13</td>
<td>191,462</td>
<td>16,818</td>
</tr>
<tr>
<td>Canned Tuna</td>
<td>73</td>
<td>31</td>
<td>4</td>
<td>187,179</td>
<td>25,641</td>
</tr>
<tr>
<td>Sugar</td>
<td>1,357</td>
<td>776</td>
<td>185</td>
<td>600,177</td>
<td>256,966</td>
</tr>
<tr>
<td>Peanuts</td>
<td>54</td>
<td>32</td>
<td>22</td>
<td>136,020</td>
<td>55,416</td>
</tr>
</tbody>
</table>

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Quota Rent

• Quota Rent
  ➢ A portion of the loss of consumer surplus caused by an import quota that is transferred to the foreign supplier as additional profits.

• Allocating the Quota Rent
  ➢ Governments determine quota rents by:
    ❖ Allowing quotas to be filled on a first-come basis.
    ❖ Allocating quota rents to allow quotas to be filled by the firms of nations receiving preferential treatment.
    ❖ Charging for licenses that authorize foreign firms to fill quotas.
Voluntary Export Restraints

• Voluntary Export Restraint (VER)
  ➢ An agreement between policymakers and producers in two nations to restrict the exports of a good from one nation to the other.

• The Appeal of VERs
  ➢ Establishes an informal quota on exports—exporters prefer to restrict their activities instead of submitting to the whims of foreign policymakers.
  ➢ VERs are not under the jurisdiction of regulatory bodies that monitor regional and multilateral trade agreements.
Voluntary Export Restraints (cont’d)

• VERs and Prices
  - VERs cause domestic prices to rise and have indirect effects on imports from producers in another nation.
  - VERs can have significant effects on the type of products chosen for exportation.

• Effects of VERs
  - Creates a loss of domestic consumer surplus:
    - Part of surplus is transferred to domestic producers.
    - Deadweight losses account for a part of the loss.
    - Rents accrue to foreign producers agreeing to the VER.
Export Subsidies and Countervailing Duties

• Export Subsidy
  ➢ A payment by a government to a domestic firm for exporting its goods or services.

• Effects Of An Export Subsidy
  ➢ Subsidized exports cause global market price declines.
  ➢ Foreign subsidies generate increases in the amount of imports by domestic residents.
  ➢ Subsidization causes domestic price declines, domestic consumer surplus increases, and reduced domestic producer surpluses.
Dumping

• Dumping
  ➢ A situation in which a firm sells its output to foreign consumers at a price that is less than what the firm charges its domestic consumers, or when a foreign firm prices its exports below their cost of product.

• Countervailing Duty (CVD)
  ➢ A tax on imported goods and services designed to offset the domestic price effect of foreign export policies.
Trade Barriers and Their Costs

• First-best Trade Policy
  ➢ A trade policy that deals directly with the problem that policymakers seek to remedy.

• Second-best Trade Policy
  ➢ A trade policy that deals indirectly with a problem that policymakers seek to remedy.
### Questions and Problems - 5)

<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>