Chapter 10
Trade Policy in Developing Countries

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by Paul R. Krugman and Maurice Obstfeld
Chapter Organization

- Introduction
- Import-Substituting Industrialization
- Problems of the Dual Economy
- Export-Oriented Industrialization: The East Asian Miracle
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Introduction

- There is a great diversity among the developing countries in terms of their income per capita.
- Why are some countries so much poorer than others?
  - For about 30 years after World War II trade policies in many developing countries were strongly influenced by the belief that the key to economic development was creation of a strong manufacturing sector.
    - The best way to create a strong manufacturing sector was by protecting domestic manufacturers from international competition.
### Introduction

**Table 10-1: Gross Domestic Product Per Capita, 1999 (dollars)**

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>33,900</td>
</tr>
<tr>
<td>Japan</td>
<td>23,400</td>
</tr>
<tr>
<td>Germany</td>
<td>22,700</td>
</tr>
<tr>
<td>Singapore</td>
<td>27,800</td>
</tr>
<tr>
<td>South Korea</td>
<td>13,300</td>
</tr>
<tr>
<td>Mexico</td>
<td>8,500</td>
</tr>
<tr>
<td>China</td>
<td>3,800</td>
</tr>
<tr>
<td>India</td>
<td>1,800</td>
</tr>
</tbody>
</table>

**Source:** CIA, *World Factbook*, 2000.
From World War II until the 1970s many developing countries attempted to accelerate their development by limiting imports of manufactured goods to foster a manufacturing sector serving the domestic market.

The most important economic argument for protecting manufacturing industries is the infant industry argument.
The Infant Industry Argument

- It states that developing countries have a potential comparative advantage in manufacturing and they can realize that potential through an initial period of protection.
- It implies that it is a good idea to use tariffs or import quotas as temporary measures to get industrialization started.

  - Example: The U.S. and Germany had high tariff rates on manufacturing in the 19th century, while Japan had extensive import controls until the 1970s.
Problems with the Infant Industry Argument

- It is not always good to try to move today into the industries that will have a comparative advantage in the future.
  - Example: In the 1980s South Korea became an exporter of automobiles, whereas in the 1960s its capital and skilled labor were still very scarce.

- Protecting manufacturing does no good unless the protection itself helps make industry competitive.
  - Example: Pakistan and India have protected their heavy manufacturing sectors for decades and have recently begun to develop significant exports of light manufactures like textiles.
Market Failure Justifications for Infant Industry Protection

- Two market failures are identified as reasons why infant industry protection may be a good idea:
  - Imperfect capital markets justification
    - If a developing country does not have a set of financial institutions that would allow savings from traditional sectors (such as agriculture) to be used to finance investment in new sectors (such as manufacturing), then growth of new industries will be restricted.
  - Appropriability argument
    - Firms in a new industry generate social benefits for which they are not compensated (e.g. start-up costs of adapting technology).
Promoting Manufacturing Through Protection

- **Import-substituting industrialization**
  - The strategy of encouraging domestic industry by limiting imports of manufactured goods
    - Many less-developed countries have pursued this strategy.

- **Has import-substituting industrialization promoted economic development?**
  - Many economists are now harshly critical of the results of import substitution, arguing that it has fostered high-cost, inefficient production.
Import-Substituting Industrialization

• Why not encourage both import substitution and exports?
  – A tariff that reduces imports also necessarily reduces exports.
  – Until the 1970s many developing countries were skeptical about the possibility of exporting manufactured goods.
  – In many cases, import-substituting industrialization policies dovetailed naturally with existing political biases.
### Import-Substituting Industrialization

**Table 10-2**: Exports as a Percentage of National Income, 1999

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>8</td>
</tr>
<tr>
<td>India</td>
<td>11</td>
</tr>
<tr>
<td>United States</td>
<td>12</td>
</tr>
<tr>
<td>Japan</td>
<td>11</td>
</tr>
<tr>
<td>Germany</td>
<td>27</td>
</tr>
<tr>
<td>South Korea</td>
<td>42</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>132</td>
</tr>
<tr>
<td>Singapore</td>
<td>202</td>
</tr>
</tbody>
</table>

Results of Favoring Manufacturing: Problems of Import-Substituting Industrialization

- Many countries that have pursued import substitution have not shown any signs of catching up with the advanced countries.
  - Example: In India, after 20 years of economic plans between the early 1950s and the early 1970s, its per capita income was only a few percent higher than before.
Import-Substituting Industrialization

• Why didn’t import-substituting industrialization work the way it was supposed to?
  – The infant industry argument was not as universally valid as many people assumed.

• Import-substituting industrialization generated:
  – High rates of effective protection
  – Inefficient scale of production
  – Higher income inequality and unemployment
### Table 10-3: Effective Protection of Manufacturing in Some Developing Countries (percent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico</td>
<td>1960</td>
<td>26</td>
</tr>
<tr>
<td>Philippines</td>
<td>1965</td>
<td>61</td>
</tr>
<tr>
<td>Brazil</td>
<td>1966</td>
<td>113</td>
</tr>
<tr>
<td>Chile</td>
<td>1961</td>
<td>182</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1963</td>
<td>271</td>
</tr>
</tbody>
</table>

Problems of the Dual Economy

- Most developing countries are characterized by economic dualism.
  - A high-wage, capital-intensive industrial sector coexists with a low-wage traditional sector.
- Dualism is associated with trade policy for two reasons:
  - Dualism is probably a sign of markets working poorly (market failure case for deviating from free trade).
  - The creation of the dual economy (an economy that is characterized by economic dualism) has been helped by import-substitution policies.
The Symptoms of Dualism

- Development often proceeds unevenly and results in a dual economy consisting of a modern sector and a traditional sector.
  - The modern sector typically differs from the traditional sector in that it has:
    - Higher value of output per worker
    - Higher wages
    - Lower returns to capital
    - Higher capital intensity
    - Persistent unemployment (especially in urban areas)
Dual Labor Markets and Trade Policy

- The symptoms of dualism are clear signs of an economy that is not working well, especially in its labor markets.

- **Wage differentials argument**
  - The wage differences between manufacturing and agriculture is a justification for encouraging manufacturing at agriculture’s expense.
  - When there is a wage differential, the manufactures wage \(W_M\) must be higher than the food wage \(W_F\).
Problems of the Dual Economy

**Figure 10-1: The Effect of a Wage Differential**

Value of marginal products, wages

- $W_M$
- $W_F$
- $P_F \times MPL_F$
- $P_M \times MPL_M$

Labor employed in manufactures
- $L^1$

Labor employed in food
- $L^2$

Total labor supply
Problems of the Dual Economy

- The Harris-Todaro model
  - It links rural-urban migration and unemployment that undermines the case for favoring manufacturing employment, even though manufacturing does offer higher wages.
    - Countries with highly dualistic economies also seem to have a great deal of urban unemployment.
    - An increase in the number of manufacturing jobs will lead to a rural-urban migration so large that urban unemployment actually rises.
  - It helps the wage differentials argument to be in disfavor with economists.
Trade Policy as a Cause of Economic Dualism

- Trade policy has been accused both of:
  - Widening the wage differential between manufacturing and agriculture
  - Fostering excessive capital intensity
- Wage differentials are viewed as:
  - A natural market response
  - The monopoly power of unions whose industries are sheltered by import quotas from foreign competition
Export-Oriented Industrialization: the East Asian Miracle

- From the mid-1960s onward, exports of manufactured goods, primarily to advanced nations, was another possible path to industrialization for the developing countries.

- **High performance Asian economies (HPAEs)**
  - A group of countries that achieved spectacular economic growth.
    - In some cases, they achieved economic growth of more than 10% per year.
The Facts of Asian Growth

• The World Bank’s definition of HPAEs contains three groups of countries, whose “miracle” began at different times:
  – Japan (after World War II)
  – The four “tigers”: Hong Kong, Taiwan, South Korea, and Singapore (in the 1960s)
  – Malaysia, Thailand, Indonesia, and China (in the late 1970s and the 1980s)

• The HPAEs are very open to international trade
  – Example: In 1999, exports as a share of gross domestic product in the case of both Hong Kong and Singapore exceeded 100% of GDP (132 and 202 respectively).
Trade Policy in the HPAEs

- Some economists argue that the “East Asian miracle” is the payoff to the relatively open trade regime.
  - The data in Table 10-4 suggests that the HPAEs have been less protectionist than other, less developing countries, but they have by no means followed a policy of complete free trade.
  - Low rates of protection in the HPAEs helped them to grow, but they are only a partial explanation of the “miracle.”
Export-Oriented Industrialization: the East Asian Miracle

Table 10-4: Average Rates of Protection, 1985 (percent)

<table>
<thead>
<tr>
<th>Region</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-performance Asian economies</td>
<td>24</td>
</tr>
<tr>
<td>Other Asia</td>
<td>42</td>
</tr>
<tr>
<td>South America</td>
<td>46</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>34</td>
</tr>
</tbody>
</table>

Industrial Policy in the HPAEs

• Several of the highly successful economies have pursued industrial policies (from tariffs to government support for research and development) that favor particular industries over others.

• Most economists have been skeptical about the importance of such policies because:
  – HPAEs have followed a wide variety of policies, but achieved similarly high growth rates.
  – The actual impact on industrial structure may not have been large.
  – There have been some notable failures of industrial policy.
Other Factors in Growth

• Two factors can explain the rapid growth in East Asia:
  – High saving rates
  – Rapid improvement in public education

• The East Asian experience refutes that:
  – Industrialization and development must be based on an inward-looking strategy of import substitution.
  – The world market is rigged against new entrants, preventing poor countries from becoming rich.
Summary

- Trade policy in less-developed countries is concerned with two objectives: promoting industrialization and coping with the uneven development of the domestic economy.
- Government policy to promote industrialization has often been justified by the infant industry argument.
- Many less-developed countries have pursued policies of import-substituting industrialization.
  - These policies have fostered high-cost, inefficient production.
Most developing countries are characterized by economic dualism.

- Dual economies have a serious problem of urban unemployment.

The difference in wages between the modern and traditional sectors have sometimes been used as a case for tariff protection of the industrial sector.

The HPAEs have industrialized not via import substitution but via exports of manufactured goods.