

# INTERNATIONAL TRADE

## Chapter 11: Controversies in Trade Policy

# Preview

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- Arguments for “activist” trade policies
  - ◆ Externality or appropriability problem
  - ◆ Strategic trade policy with imperfect competition
- Arguments concerning trade and people
  - ◆ Trade and labor
  - ◆ Trade and the environment
  - ◆ Trade and culture



# Argument for activist trade policy

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- An activist trade policy usually means government policies that actively support export industries through subsidies.
- Arguments for activist trade policies use an assumption that import substituting industrialization (chapter 10) and the cases against free trade (chapter 9) used: market failure.
  - ♦ Externalities or an appropriability problem
  - ♦ Imperfect competition that results in monopoly or “excess” profits.

# Technology and Externalities

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- Firms that invest in new technology generally create knowledge that other firms can use without paying for it: an appropriability problem.
  - ◆ By investing in new technology, firms are creating an extra benefit for society that is easily used by others.
  - ◆ An appropriability problem is an example of an **externality**: benefits or costs that accrue to parties other than the one that generates it.
  - ◆ An externality implies that the marginal social benefit of investment is not represented by producers surplus.



# Market Failure Justifications for Infant Industry Protection

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Review chapter 10: The problem of appropriability

- ◆ Firms may not be able to privately appropriate the benefits of their investment in new industries because those benefits are public goods.
- ◆ The knowledge created when starting an industry may be not appropriable (may be a public good) because of a lack of property rights.
- ◆ If establishing a system of property rights is not feasible, then high tariffs would be a second-best policy to encourage growth in new industries.

# Technology and Externalities

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- Governments may want to actively encourage investment in technology when externalities in new technologies create a high marginal social benefit.
- Should the US government subsidize high technology industries?



# Technology and Externalities

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- When considering whether a government should subsidize high technology industries, consider:
  1. The ability of governments to subsidize the right activity.
    - ♦ Much activity by high technology firms has nothing to do with generating knowledge: subsidizing equipment purchases or non-technical workers generally does not create new technology.
    - ♦ Knowledge and innovation are created in industries that are not usually classified as high tech.

# Technology and Externalities

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- Should the US government subsidize high technology industries?
- Instead of subsidizing specific industries, the US subsidizes research and development through the tax code:
  - ◆ research and development expenses can be deducted from corporate taxable income.



# Technology and Externalities

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## 1. The economic importance of externalities.

- ◆ It is difficult to determine the quantitative importance that externalities have on the economy.
- ◆ Therefore, it is difficult to say *how much* to subsidize activities that create externalities.

## 2. Externalities may occur across countries as well.

- ◆ No individual country has an incentive to subsidize industries if all countries could take advantage of the externalities generated in a country.

# Imperfect Competition and Strategic Trade Policy

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- Imperfectly competitive industries are typically dominated by a few firms that generate monopoly profits or **excess profits** (or excess returns).
  - ♦ Excess profits refer to profits above what equally risky investments elsewhere in the economy can earn.
- In an imperfectly competitive industry, government subsidies can shift excess profits from a foreign firm to a domestic firm.
- Let's use a simple example to illustrate this point.



# Imperfect Competition and Strategic Trade Policy

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- Example (called the Brander-Spencer analysis):
  - ◆ Two firms (Boeing and Airbus) compete in the international market but are located in two different countries (United States and Europe).
  - ◆ Both firms are interested in manufacturing airplanes, but each firm's profits depends on the actions of the other.
  - ◆ Each firm decides to produce or not depending on profit levels.

# Imperfect Competition and Strategic Trade Policy

**TABLE 11-1 Two-Firm Competition**

		Airbus	
		Produce	Don't produce
Boeing	Produce	-5 / -5	100 / 0
	Don't produce	0 / 100	0 / 0



# Imperfect Competition and Strategic Trade Policy

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- The predicted outcome depends on which firms invests/produces first.
  - ♦ If Boeing produces first, then Airbus will not find it profitable to produce.
  - ♦ If Airbus produces first, then Boeing will not find it profitable to produce.
- But a subsidy of 25 by the European Union can alter the outcome by making it profitable for Airbus to produce *regardless of Boeing's action*.

# Imperfect Competition and Strategic Trade Policy

**TABLE 11-2** Effects of a Subsidy to Airbus

		Airbus	
		Produce	Don't produce
Boeing	Produce	<div> <div>-5</div> <div>20</div> </div>	<div> <div>100</div> <div>0</div> </div>
	Don't produce	<div> <div>0</div> <div>125</div> </div>	<div> <div>0</div> <div>0</div> </div>



# Imperfect Competition and Strategic Trade Policy

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- If Boeing expects that the European Union will subsidize Airbus, Boeing will be deterred from entering the industry.
  - ◆ Thus, the subsidy of 25 will generate profits of 125 for Airbus.
  - ◆ The subsidy raises profits more than the amount of the subsidy itself because of its deterrent effect on foreign competition.

# Imperfect Competition and Strategic Trade Policy

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- A government policy to give a domestic firm a strategic advantage in production is called a **strategic trade policy**.



# Imperfect Competition and Strategic Trade Policy

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- Criticisms of this analysis include:
  1. Practical use of strategic trade policy requires more information about firms than is likely available.
    - ♦ The predictions from the simple example differ if the numbers are slightly different.
    - ♦ What if governments or economists are not exactly right when predicting the profits of firms?
    - ♦ For example, what if Boeing has a better technology which only it recognizes, so that even if Airbus produces Boeing still finds it profitable to produce.

# Imperfect Competition and Strategic Trade Policy

**TABLE 11-3 Two-Firm Competition: An Alternative Case**

		Airbus	
		Produce	Don't produce
Boeing	Produce	<div> <div>-20</div> <div>5</div> </div>	<div> <div>0</div> <div>125</div> </div>
	Don't produce	<div> <div>100</div> <div>0</div> </div>	<div> <div>0</div> <div>0</div> </div>



# Imperfect Competition and Strategic Trade Policy

**TABLE 11-4** Effects of a Subsidy to Airbus

		Airbus	
		Produce	Don't produce
Boeing	Produce	5	125
	Don't produce	0	0

# Imperfect Competition and Strategic Trade Policy

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- The predicted outcome when the European Union subsidizes Airbus is now that both firms produce and both earn only 5.
  - ♦ The subsidy no longer raises profits by more than the subsidy because it failed to deter foreign competition.
- Thus, it is not at all evident that a subsidy would be worthwhile: it could waste resources that could be used elsewhere in the economy.



# Imperfect Competition and Strategic Trade Policy

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5. Foreign retaliation also could result:
  - ◆ if the European Union subsidizes Airbus, the US could subsidize Boeing,
  - ◆ which would deter neither firm from producing, start a trade war and waste taxpayer funds.
6. Strategic trade policy, like any trade policy, could be manipulated by politically powerful groups.

# Trade and Labor

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- An increase manufactured exports from low and middle income countries has been a major change in the world economy over the last generation.
- Compared to rich country standards, workers who produce these goods are paid low wages and may work under poor conditions.
- Some have opposed free trade because of this fact.



# Trade and Labor

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- One example of this situation is the *maquiladora* sector: Mexican firms that produce for export to the US.
- Opponents of the North American Free Trade Agreement have argued that it is now easier for employers to replace high wage workers in the US with low wage workers in Mexico.





## *Maquiladoras in Mexico*



# Trade and Labor

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Maquiladora is established mostly in developing countries such as Mexico, El Salvador, Costa Rica, Guatemala, Honduras, Dominican; Philippines, Malaysia, Indonesia; Africa, India and Bangladesh.

# Trade and Labor

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- The above claim can be true, but we can not conclude that trade hurts workers.
- A Ricardian model predicts that while wages in Mexico should remain lower than those in the US because of low productivity in Mexico, they will rise relative to their pre-trade level.
- A Heckscher-Ohlin model does predict that unskilled workers in the US will lose from NAFTA, but it also predicts that unskilled workers in Mexico will gain.



# Trade and Labor

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- Despite the low wages earned by workers in Mexico, both theories predict that those workers are better off than they would be if trade had not taken place.
  - ♦ Evidence consistent with these predictions would show that wages in *maquiladoras* have risen relative to wages in other Mexican sectors.
  - ♦ We could also compare working conditions in *maquiladoras* with the working conditions in other Mexican sectors.

# Trade and Labor

**TABLE 12-3 Real Wages**

**(A) Before Trade**

	High-Tech Goods/Hour	Low-Tech Goods/Hour
United States	1	1
Mexico	1/8	1/2

**(B) After Trade**

	High-Tech Goods/Hour	Low-Tech Goods/Hour
United States	1	2
Mexico	1/4	1/2



# Trade and Labor

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- Some labor activists want to include labor standards in trade negotiations.
  - ◆ However, labor standards imposed by foreign countries are opposed by governments of low and middle income countries.
  - ◆ International standards could be used as a protectionist policy or a basis for lawsuits when domestic producers did not meet them.
  - ◆ Standards set by high income countries would be expensive for low and middle income producers.

# Trade and Labor

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A policy that could be agreeable for governments of low and middle income countries is a system that monitors wages and working conditions and makes this information available to consumers.

- ◆ Products could be certified as made with acceptable wage rates and working conditions.
- ◆ This policy would have a limited effect since a large majority of workers in low and middle income countries do not work in the export sector.



# Trade and Environment

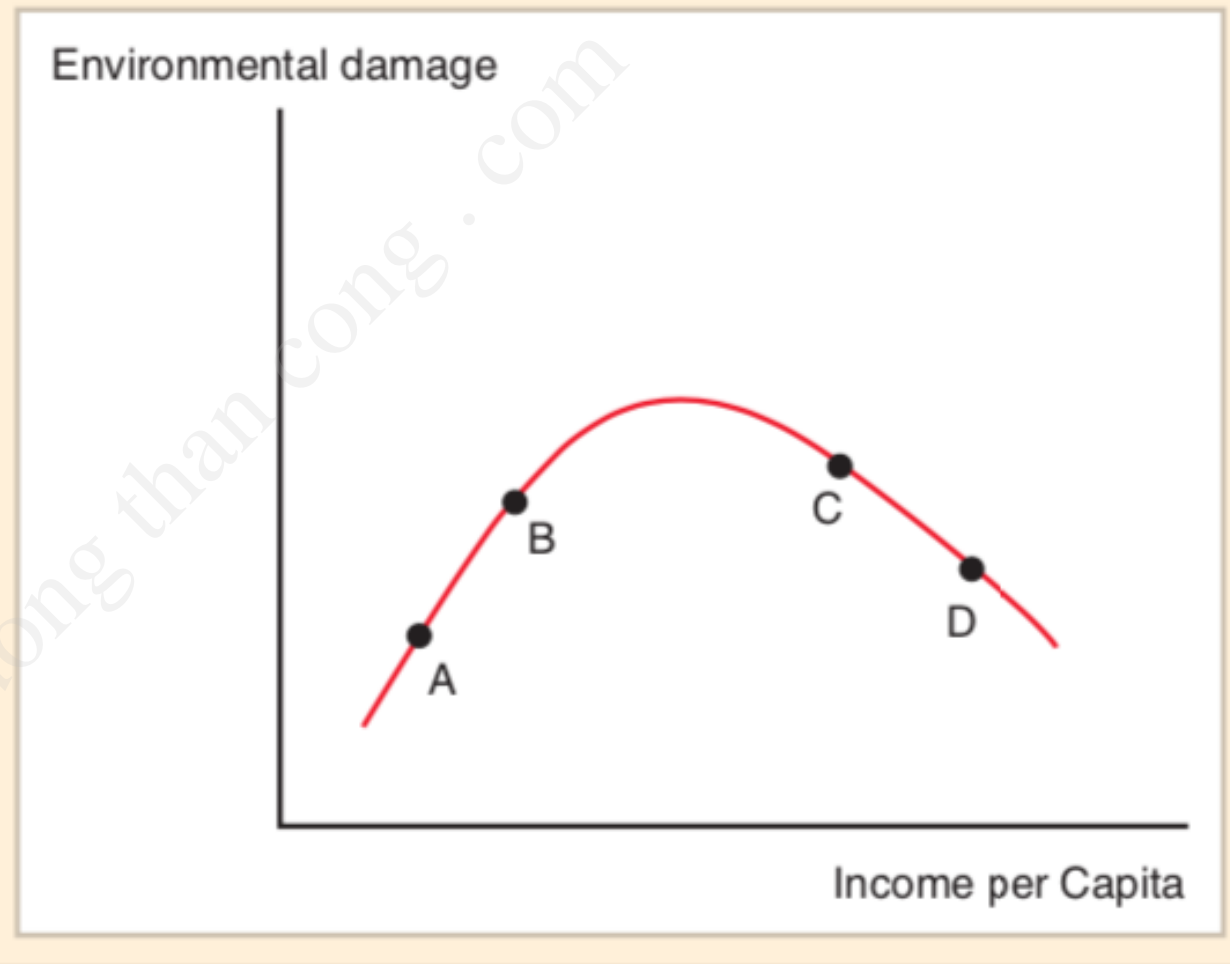
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- Compared to country standards, environmental standard in low and middle income countries are lax.
- Some have opposed free trade because of this fact.
- But we can not conclude that trade hurts the environment, since in the absence of trade government policies have degraded the environment.
- <https://www.youtube.com/watch?v=IF9YsVpZnSE>

**Figure 12-3**

**The Environmental Kuznets Curve**

Empirical evidence suggests that as economies grow, they initially do increasing environmental damage—but they become more environmentally friendly once they become sufficiently rich. China, where the environment is deteriorating as the economy expands, is in effect moving from A to B. Richer countries may be moving from C to D, using some of their growth to improve the environment.

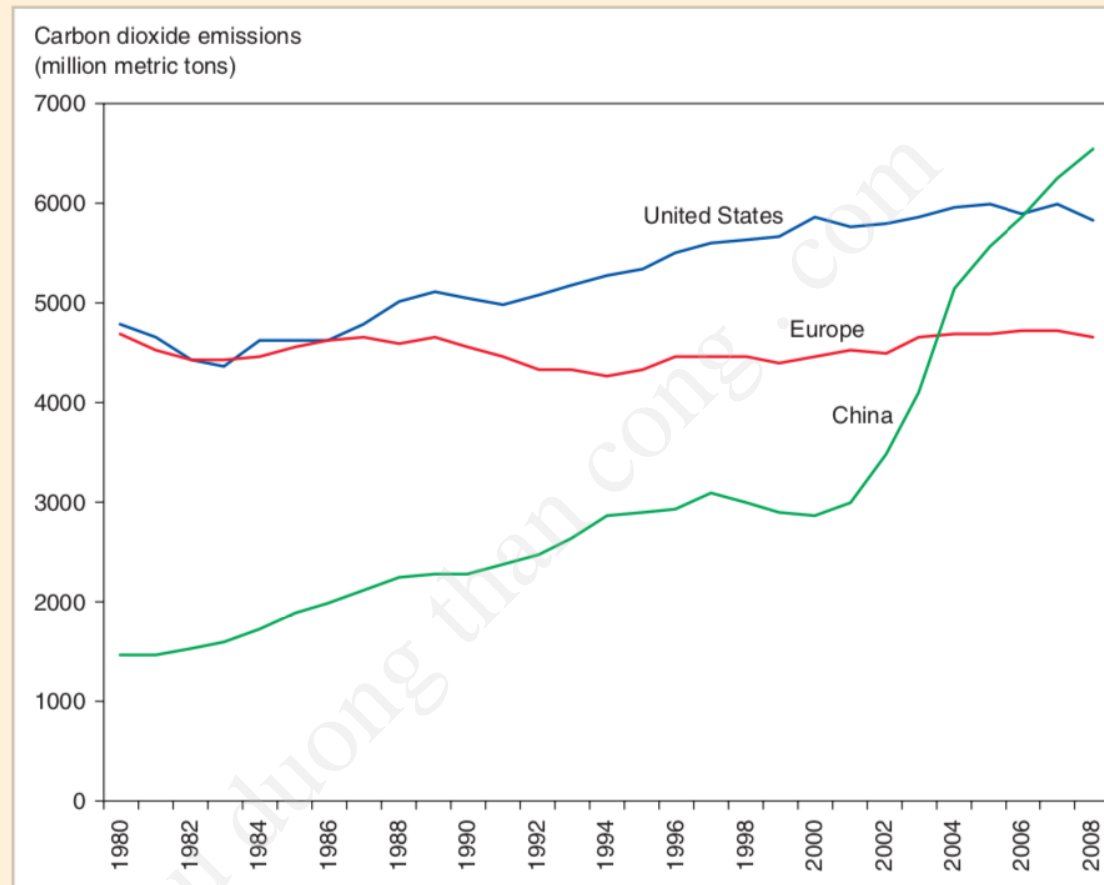




# Trade and Environment

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**Figure 12-4**

**Carbon Dioxide Emissions**

The rapid economic growth of China has turned it from a minor factor in climate change to the world's largest emitter of carbon dioxide.

**Source:** Energy Information Agency.



# Trade and Culture

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- Some activists believe that trade destroys culture in other countries.
  - ◆ This belief neglects the principle that we should allow people to define their culture through the choices that *they* make not through standards set by others.
  - ◆ And any economic change leads to changes in everyday life.

# Summary

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1. One argument for an activist trade policy is that investment in high technology industries produces externalities for the economy.
  - ♦ But it is hard to identify which activities produce externalities and if so, to what degree they do.
2. A second argument for an activist trade policy is that governments can give domestic firms a strategic advantage in industries with excess profits.
  - ♦ But it is unclear if such a policy would succeed at giving a firm a strategic advantage or if it would be worthwhile.



# Summary

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3. Some have opposed free trade because of the fact that workers in low and middle income countries earn lower wages and have worse working conditions than workers in high income countries.

But workers in low and middle income countries are predicted to have lower wages due to lower productivity, yet still have higher wages compared to their situation without trade.

# Summary

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4. Some have proposed that trade negotiations involve labor, environmental or “cultural” standards, but these standards are generally opposed by governments of low and middle income countries.