

Controversies in Trade Policy

International Economics
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Krugman et al. Chapter 12

Topics

- Sophisticated Arguments for Activist Trade Policy
- Globalization and Low-Wage Labor
- Globalization and the Environment
- Trade Shocks and Their Impact on Communities

Sophisticated Arguments for Activist Trade Policy

Market Failure and Trade Policy

- Activist government policy is successful when it offset some preexisting domestic market failure
- Two kinds of market failure that seem to be present and relevant to the trade policies of advanced countries:
 - Positive externalities in high-technology sectors
 - Imperfect markets

Technology and Externalities

- (Positive) Externalities: The marginal social benefit generated by one firms without paying for it
 - In the trade policy, positive externalities can be knowledge generated by a firm
- If these externalities is important, then subsidizing them can be a good idea

High-Technology Industries

- In high-technology sectors, investment in knowledge is the key part of the business
 - High level of research and development
 - Willing to take initial cost for new products and experience
- Possibility of the externalities:
 - Reverse engineering: Others can learn from pioneer
 - Limited power of patent law

Two Questions

- Can the government target the right industries (or activities)?
- How important would the gains be from the targeting?

Identification of the Right Targeting

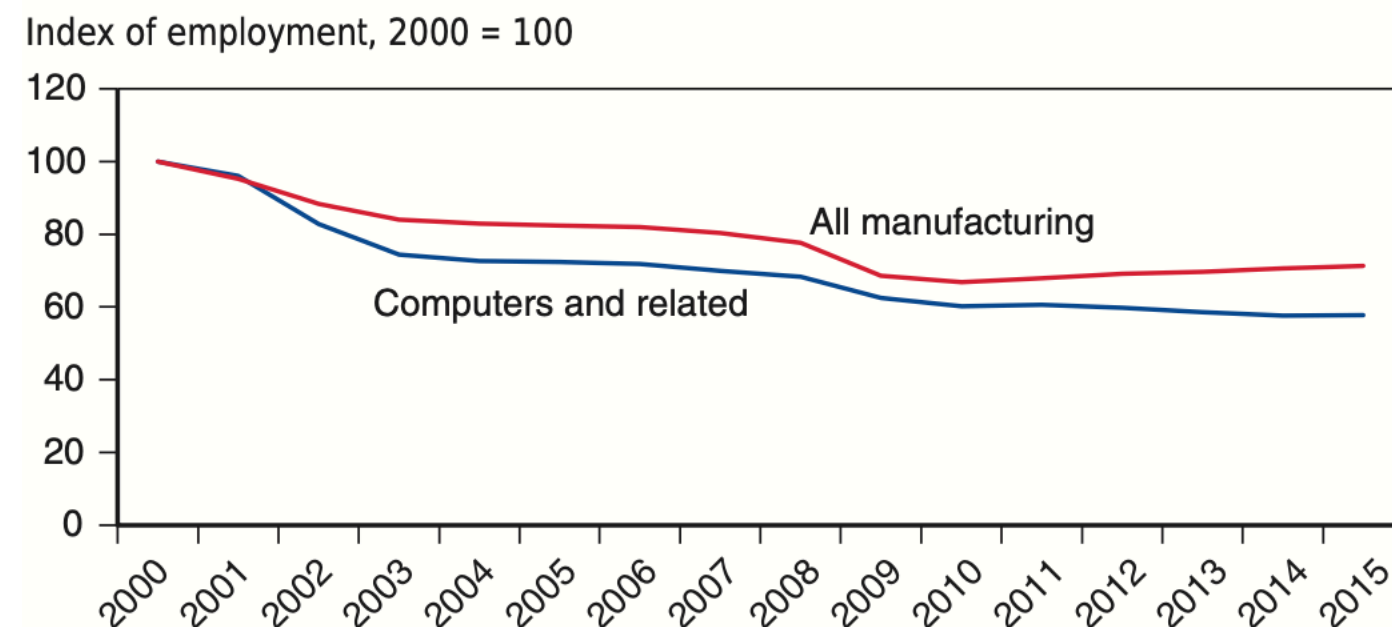
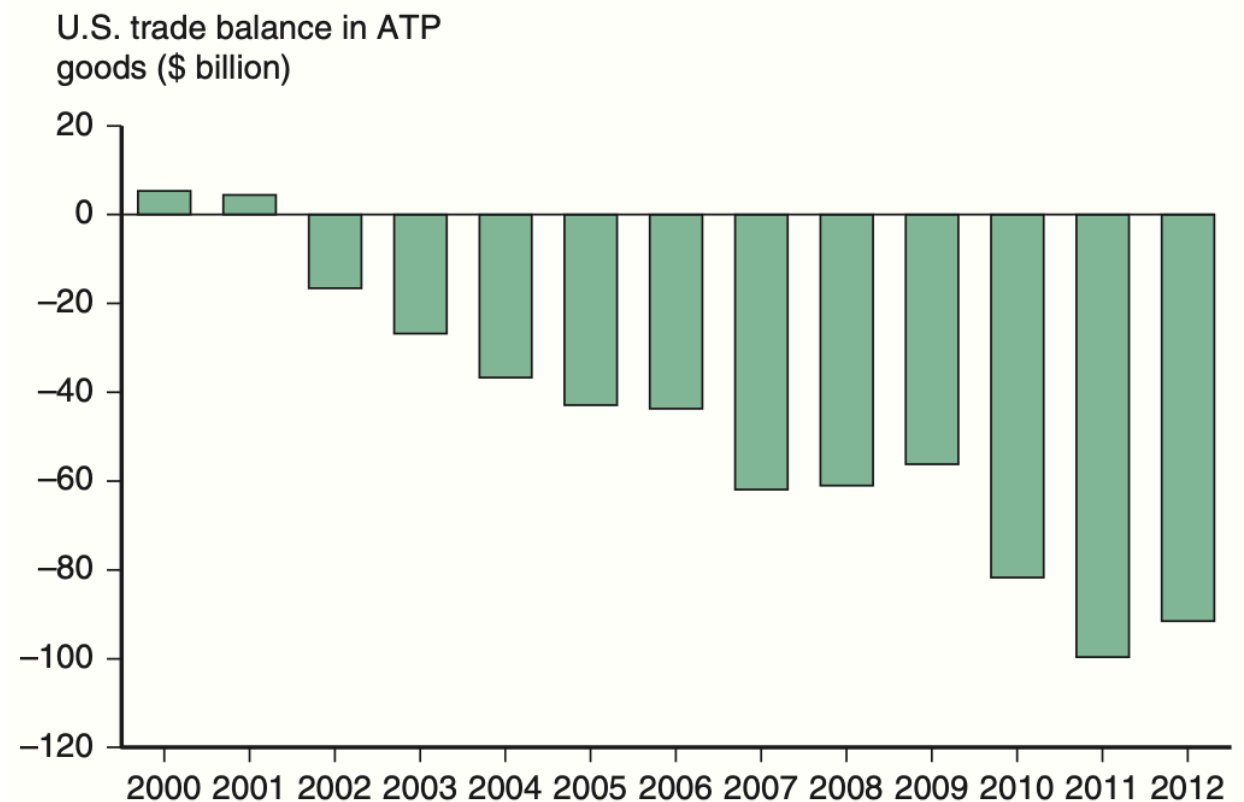
- Policy should seek to subsidize the generation of knowledge that firms cannot appropriate
- Identifying such knowledge generation is not always easy
 - For example, focusing only on activities labelled "research" is not good criterion

The Rise, Fall, and Rise of High-Tech Worries

- In United States, promoting high-technology industry got attention in the 1980s and early 1990s, then fell from favor, and now experience a strong revival in recent years
- The first rise: From the worries of Japan's dominance in high-technology products (e.g., semiconductor)
- Fall: From the Japan's slow growth
- And recently, argument about promoting high-tech industries reemerged

Reemergence of Protection for ATP Sectors

- Main cause; outsourcing much of the actual production out of high-technology goods to factories outside
- There is some warning that innovation is closely related to the close distance
- Difficult debate to settle: Ambiguous measures \Rightarrow Increasingly intensive debates are expected



Imperfect Competition and Strategic Trade Policy

- J. Brander and B. Spencer (1985)
- In some industries which have small number of firms, the assumptions of perfect competition do not apply.
 - They argued government can change the situation
 - Example: A subsidy to domestic firms \Rightarrow deterring foreign investment and production

The Brander-Spencer Analysis: Hypothetical Example

- Two firms competing with each other
 - Example: Boeing and Airbus
- New product: a superjumbo aircraft
- Two actions available: Produce (Yes) and Do not produce (No)
 - There can be total 2×2 cases and their corresponding payoff: Payoff table

Payoff Table

TABLE 12-1 Two-Firm Competition

<div style="display: inline-block; width: 100px; height: 100px; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; right: 0; background-color: #add8e6; width: 50%; height: 50%; transform: rotate(45deg); transform-origin: top right;">Airbus</div> <div style="position: absolute; bottom: 0; left: 0; background-color: #ffcc99; width: 50%; height: 50%; transform: rotate(-45deg); transform-origin: bottom left;">Boeing</div> </div>		Yes <i>Produce</i>	No <i>Don't produce</i>
<div style="display: inline-block; width: 100px; height: 100px; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; right: 0; background-color: #add8e6; width: 50%; height: 50%; transform: rotate(45deg); transform-origin: top right;"></div> <div style="position: absolute; bottom: 0; left: 0; background-color: #ffcc99; width: 50%; height: 50%; transform: rotate(-45deg); transform-origin: bottom left;"></div> </div>	Yes	-5	100
	No	100	0
<div style="display: inline-block; width: 100px; height: 100px; border: 1px solid black; position: relative;"> <div style="position: absolute; top: 0; right: 0; background-color: #add8e6; width: 50%; height: 50%; transform: rotate(45deg); transform-origin: top right;"></div> <div style="position: absolute; bottom: 0; left: 0; background-color: #ffcc99; width: 50%; height: 50%; transform: rotate(-45deg); transform-origin: bottom left;"></div> </div>			
<i>Produce</i>			
<i>Don't produce</i>			

Interpretation of the Payoff Table

- It is profitable only one of the firms produce a superjumbo aircraft
 - Result depends on who produce first
- Suppose Boeing starts producing it first
- Brander-Spencer point: European government can reverse this situation

TABLE 12-1 Two-Firm Competition

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

Brander-Spencer Analysis

- For Airbus, because of the subsidy, producing superjumbo aircraft is profitable
- strategic advantage

TABLE 12-1 Two-Firm Competition

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

EU: +25 for producing

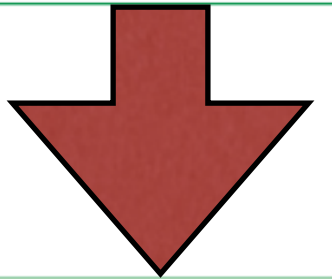


TABLE 12-2 Effects of a Subsidy to Airbus

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

The problems with the Brander-Spencer Analysis

- EU's subsidy raise the profits of a European firm at the expense of its foreign rivals
- However in this case, United States will not put this argument into practice
- This strategic justification received much criticism
 - Making practical use of the theory would require more information than is likely to be available (think about when subsidy is 4)
 - Risk of foreign retaliation (trade war)
 - Domestic politics of trade (interest groups)

Globalization and Low- Wage Labor

The Anti-Globalization Movement

- In the 1990s, anti-globalization movement grew
 - it originally started in 1968 in Europe
- Idea: International trade is harmful to workers in poorer countries

Trade and Wages Revisited

- Activists pointed to the very low wages earned by workers in developing-country export industries
 - Low wage and poor working condition was not helping workers in developing countries
- Hypothetical example: Japan and Vietnam

Hypothetical Example: Japan and Vietnam

- Assumptions:
 - There are two countries: Japan and Vietnam
 - There are two industries: high-tech and low-tech industries
 - There are one factor of production: labor
 - Japan is more productive in all industries

TABLE 12-3 Real Wages

(A) Before Trade

	High-Tech Goods/Hour	Low-Tech Goods/Hour
Japan	1	1
Vietnam	$\frac{1}{8}$	$\frac{1}{2}$

Hypothetical Example: After Trade

- After trade is opened, the equilibrium is determined by the relative productivity
 - For example, Japanese wage is four times Vietnam's wages
- By the concept of comparative advantage, it is cheaper to produce low-tech goods in Vietnam, and high-tech goods in the Japan
 - Vietnam: all workers produce low-tech goods
 - Japan: all workers produce high-tech goods

TABLE 12-3 Real Wages

(A) Before Trade		
	High-Tech Goods/Hour	Low-Tech Goods/Hour
Japan	1	1
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(B) After Trade		
	High-Tech Goods/Hour	Low-Tech Goods/Hour
Japan	1	2
Vietnam	$\frac{1}{4}$	$\frac{1}{2}$

A Critic of Globalization

- In low-tech industries, highly paid jobs in Japan replaced with lower-paid jobs in Vietnam
- Vietnam's workers seems to be underpaid
 - Their productivity is $\frac{1}{2}$ but their wage rate is $\frac{1}{4}$ of Japanese worker's wage rates
- However, the purchasing power increased in both countries
 - Japan: $1 \rightarrow 2$ (low-tech goods)
 - Vietnam: $\frac{1}{8} \rightarrow \frac{1}{4}$ (high-tech goods)

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Labor Standards and Trade Negotiations

- Is globalization good for workers or not?
 - Whether and to what extent international trade agreements should contain provisions aimed at improving wages and working conditions in poor countries?
- There are two types of solutions

Two Types of Proposals

- Modest solution
 - A system that monitors wages and working conditions was proposed \Rightarrow Grant certifications and open to customers
- Stronger solution
 - To include formal labor standards as part of trade agreements
 - Advanced countries support it but developing countries oppose it: it can be used as a protectionist tool (like antidumping legislation)

Environmental and Cultural Issues

Globalization and Environmental Issues

- Many critics argue that globalization is bad for the environment
 - Environmental standards in developing-country export industries are much lower than in advanced-country industries
 - There are many cases that substantial environmental damage has been and being done in developing countries
 - Southeast Asian forests, ...

Debates in Environmental Standards

- Should the environmental standards be a part of the international trade agreements?
- Proponents:
 - it can lead to at least modest improvements in the environment
- Opponents:
 - It will in effect shut down potential export industries in poor countries which cannot afford to maintain Western standards

Globalization and Cultural Issues

- Growing integration of markets has led to a homogenization of cultures around world
 - People worldwide increasingly tend to wear the same clothing, eat the same food, listen to the same music, and watch the same films and TV shows
- However, not all of this homogenization is also Americanization

WTO and National Independence

- One recurrent theme in the anti-globalization movement:
 - The drive for free trade and free flow of capital has undermined national sovereignty
 - Does the WTO have supranational power?

Does the WTO have supranational power?

- WTO is not working like a world government
 - WTO's authority is basically limited to requiring countries' international trade agreements
- However, WTO can interfere in domestic policy related to trade policy
 - Domestic policies that are de facto trade policies
- However the WTO's ruling is based on the same standard between domestic and imported productions

Globalization and the Environment

International Trade and Environment

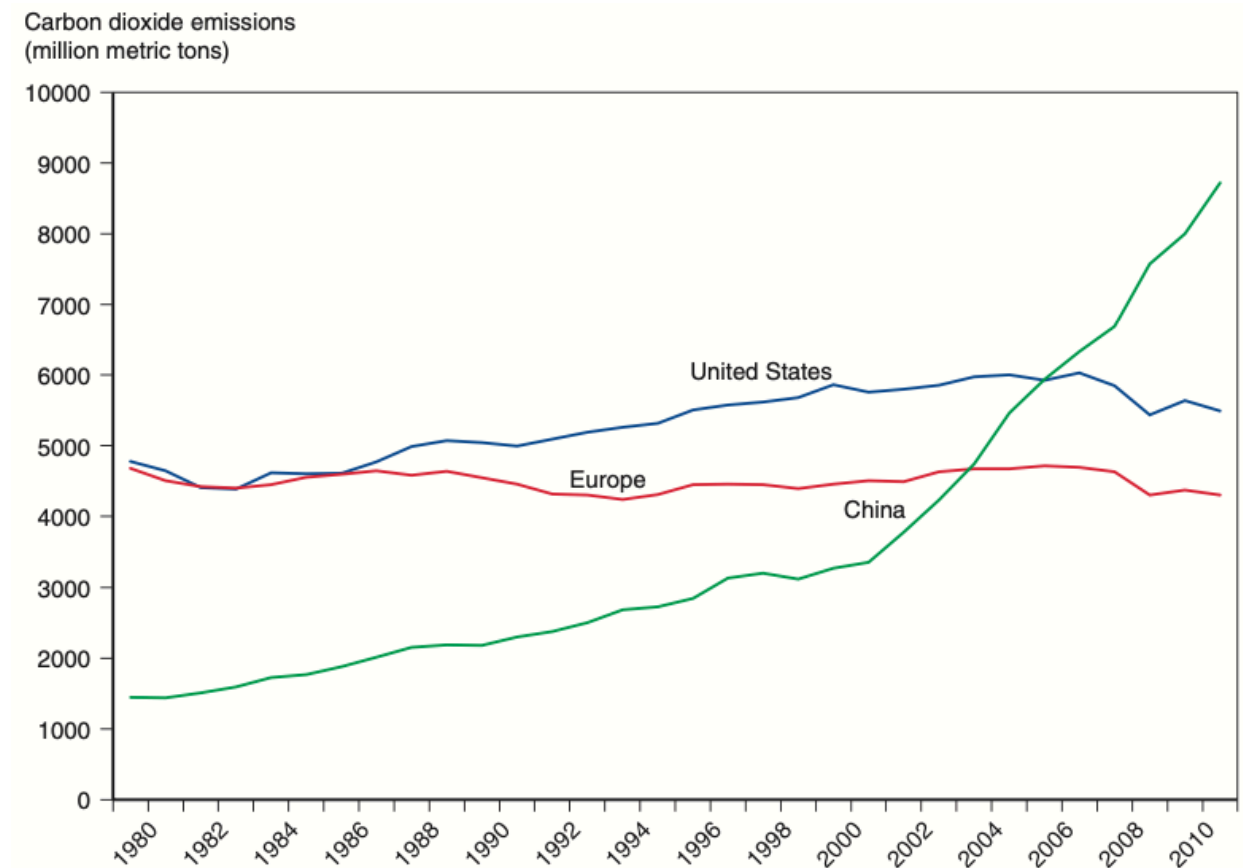
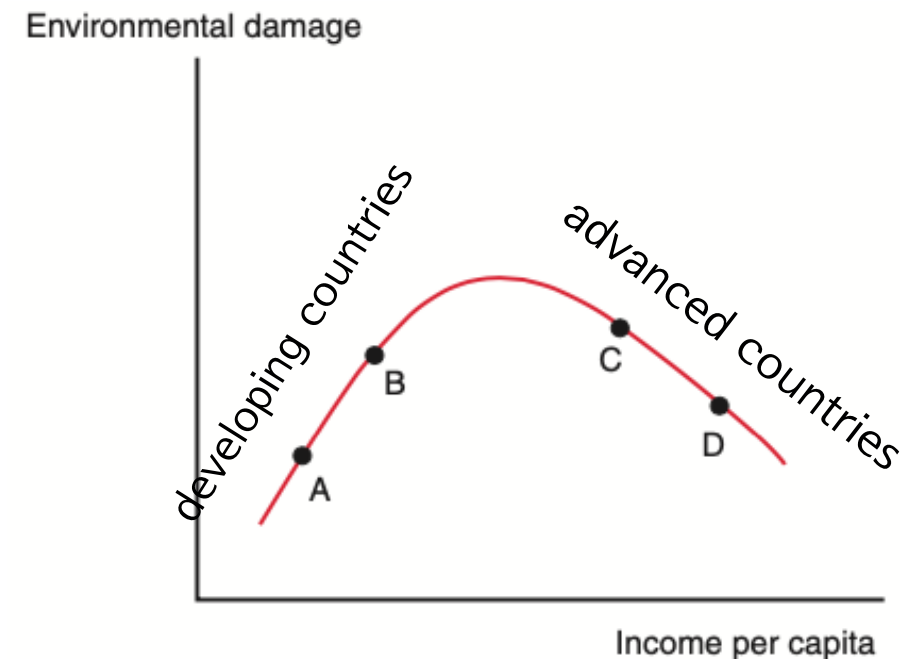
- Environmental issues are playing a growing role in disputes about international trade
- Some anti-globalization activists' claim:
 - Growing international trade automatically harm the environment
 - International trade agreements have the effect of blocking environmental action

Globalization, Growth, and Pollution

- Economic growth can lead to greater environmental damage
- However,
 - As countries richer, they change the mix of the economic structure in the ways that tend to reduce the environmental impact (goods → services)
 - Growing wealth tends to lead to growing political demands for environmental quality
 - Rich countries generally impose stricter regulations to ensure clean air and water than poorer countries

Environmental Kuznets Curve

- Grossman and Krueger (1994)
- International trade promote growth
- Will it be harmful to environment?
- It depends on the growth level
 - A \Rightarrow harmful to environment
 - C \Rightarrow beneficial to environment



The Problem of "Pollution Havens"

- Pollution haven: regions having low environmental standards
- Some activist groups are very concerned about the problem of pollution havens
- Empirical research findings:
 - Not much evidence that dirty industries move to countries with lax environmental regulation

Do nations have a legitimate interest in each other's environmental policies?

- Basically different forms of pollution have very different geographical reach
- It depends on the nature of the environmental problem
- Only the pollution affect to other countries will be the subject of international negotiation
 - Example: Emissions of Carbon dioxide

The Carbon Tariff Dispute

- Carbon tariff: tariff on imports from countries which do not have policies for reducing carbon emission
- Currently, it is on the hypothetical level: No major economy has not placed a significant price on greenhouse gas emissions
- However, it can be some major new issues in trade policy

Next Topics

- 12 December 9:15-11:45
- To Be Arranged
 - Midterm examination
 - Questions and Answers
- Supplement class: 12 December 13:00-15:50
 - Attendance is not mandatory
 - Contents will be questions and answers
 - Room 304

Thank you!



Thank you!

