

12th edition

Gaining from International Trade

Full Length Text — Part: 4 Chapter: 17
Micro Only Text — Part: 4 Chapter: 16
Macro Only Text — Part: 4 Chapter: 17

To Accompany "Economics: Private and Public Choice 12th ed."
James Gwartney, Richard Stroup, Russell Sobel, & David Macpherson
Slides authored and animated by:
James Gwartney, David Macpherson, & Charles Skipton

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The Trade Sector of the United States

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The Growth of the U.S. Trade Sector

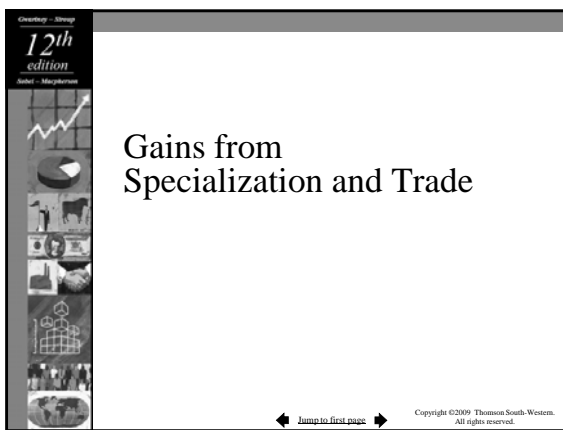
- As is shown here, both exports and imports have grown substantially as a share of the U.S. economy during the last several decades. Their growth has accelerated since 1980.
- Reductions in transport and communication costs, as well as lower trade barriers have contributed to this growth.

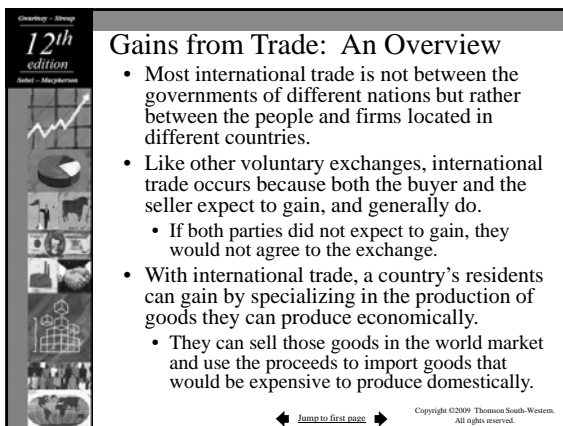
Imports (% of GDP) Exports (% of GDP)

Source: <http://www.economicmagic.com/>. The figures are based on data for real imports, exports, and GDP.

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Law of Comparative Advantage

- Law of Comparative Advantage:**
 A group of individuals, regions, or nations can produce a larger joint output if each specializes in the production of goods in which it is a low-opportunity cost producer and trades for goods for which it is a high opportunity cost producer.

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Gains from Specialization and Trade

- International trade leads to mutual gain because it allows each country to specialize more fully in the production of those things that it does best according to the *law of comparative advantage*.
- Trade makes it possible for each country to use more of its resources to produce those goods and services that it can produce at a relatively low cost.
- With trade, it will be possible for the trading partners to consume a bundle of goods that it would be impossible for them to produce domestically.

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Gains from Specialization and Trade

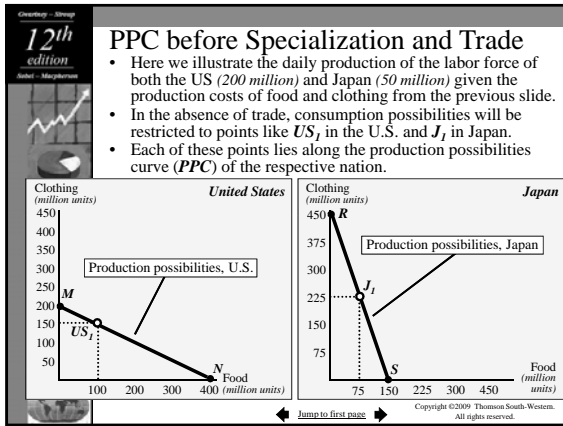
- As long as relative production costs of two goods differ between two countries—for example, U.S. and Japan—gains from trade will be possible.

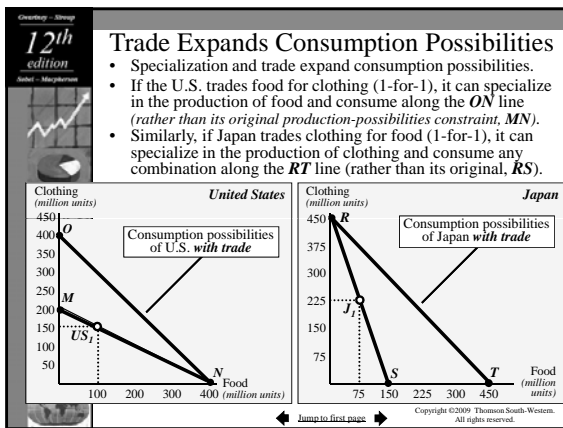
Country	Output per worker day		Potential change in output*	
	Food (1)	Clothing (2)	Food (3)	Clothing (4)
United States	2	1	+ 6	- 3
Japan	3	9	- 3	+ 9
Change in total output			+ 3	+ 6

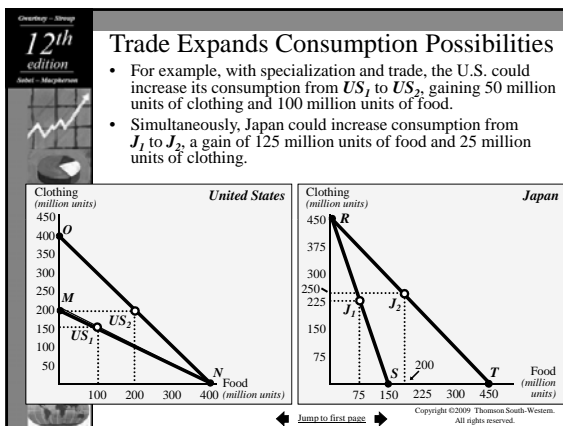
* Change in output if U.S. shifts 3 workers from clothing to food industry and if Japan shifts one from food to clothing.

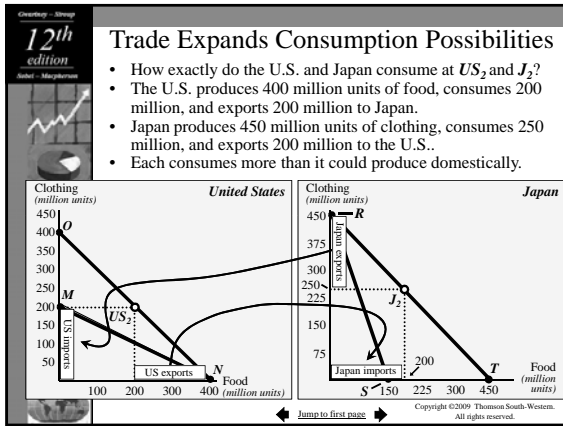
- Columns (1) and (2) indicate the daily per worker output of the food and clothing industry in the U.S. and Japan.
- If the U.S. moves 3 workers from clothing to food, it produces 6 more units of food and only 3 fewer of clothing.
- If Japan moves 1 worker from food to clothing, it produces 9 more units of clothing and only 3 fewer of food.
- With such a reallocation of labor, the U.S. and Japan are able to increase their aggregate output of both food and clothing.

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International Trade is a Key to Prosperity

- In addition to gains from specialization in areas of comparative advantage, international trade also leads to gains from:
 - **Economies of Scale:** International trade allows both domestic producers and consumers to gain from reductions in per-unit costs that often accompany large-scale production, marketing, and distribution.
 - **More Competitive Markets:** International trade promotes competition in domestic markets and allows consumers to purchase a wider variety of goods at economical prices.

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Supply, Demand, and International Trade

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U.S. Has a Comparative Advantage

- The price of soybeans and other internationally traded commodities is determined by the forces of supply and demand in the **world market**.
- If U.S. soybean producers were prohibited from selling to foreigners, the domestic price would be P_n .
- Free trade permits U.S. soybean producers to sell Q_p units at the higher world price of P_w .

U.S. Market Price: P_w , P_n . Soybeans (bushels): Q_c , Q_n , Q_p . World Market Price: P_w . Soybeans (bushels): Q_w .

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U.S. Has a Comparative Advantage

- At the world price of P_w , the quantity ($Q_p - Q_c$) is exported.
- Compared to the no-trade situation, the producers' gain from the higher price ($P_w b c P_n$) exceeds the cost imposed on domestic consumers ($P_w a c P_n$) by the triangle (area) $a b c$.

U.S. Market Price: P_w , P_n . Soybeans (bushels): Q_c , Q_n , Q_p . World Market Price: P_w . Soybeans (bushels): Q_w .

U.S. exports $Q_p - Q_c$

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Foreigners Have a Comparative Advantage

- Consider the international market for manufactured shoes.
- In the absence of trade, the domestic price would be P_n .
- Since many foreign producers have a comparative advantage in the production of shoes, international trade leads to lower prices P_w .

U.S. Market Price: P_n . Soybeans (bushels): Q_n . World Market Price: P_w . Soybeans (bushels): Q_w .

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Foreigners Have a Comparative Advantage

- At the price P_w , U.S. consumers demand Q_c units of which $(Q_c - Q_p)$ are imported.
- Compared to no trade, consumers gain $P_n a b P_w$, while domestic producers lose $P_n a c P_w$.
- A net gain of $a b c$ results.

U.S. Market Price: P_n , P_w . World Market Price: P_w . Soybeans (bushels): Q_p , Q_n , Q_c , Q_w .

U.S. imports

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Summary: Supply, Demand, & Gains from Trade

- International trade and specialization result in lower prices (and more domestic consumption) for imported products and higher prices (and less domestic consumption) for exported products.
- Trade makes it possible for domestic producers to obtain higher prices for the items they export and for domestic consumers to buy imported items at lower prices.
- As a result, the residents of each nation are able to focus more of their resources on the things they do best (produce at a low cost), while trading for those goods for which they are high opportunity cost producers.

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Questions for Thought:

- State the law of comparative advantage in your own words.
- Under what conditions can a nation gain from international trade?
- Do you think the 50 states of the United States would be better off if each imposed trade barriers limiting trade across state boundaries? Do you think the countries of North and South America would be better off if there were no trade restrictions limiting trade across national boundaries? Explain your response.

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Questions for Thought:

4. Are the following statements *true or false*?

- a. "If a nation is going to produce its maximum potential output and achieve full employment, it must impose tariffs and quotas in order to protect domestic industries and jobs."
- b. "Everyone benefits when trade barriers (for example, tariffs and quotas) are removed."
- c. "When a country trades for those things for which it is a high cost producer, it will be able to use more of its resources to produce items it can produce at a low cost."

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The Economics of Trade Restrictions

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U.S. Tariff Rates: 1890 to the Present

----- U.S. Average Tariff Rate -----
(Duties collected as a share of dutiable imports)

Year	U.S. Average Tariff Rate (%)
1890	~50
1910	~45
1930	~58
1950	~15
1970	~10
1990	~8
2006	4.5

- The average tariff rate (taxes levied upon imports) for the United States (since 1890) is illustrated above.

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Trade Restrictions: Impact of a Tariff

- Consider a tariff on auto imports.
- Without a tariff, the world price of autos is P_w . At P_w , consumers in the U.S. purchase Q_1 units ... Q_{d1} from U.S. producers and ... $Q_1 - Q_{d1}$ from foreign producers.
- A tariff t makes it more costly for Americans to purchase autos from abroad. U.S. prices rise to $P_w + t$ and purchases fall from Q_1 to Q_2 .
- U.S. purchases from domestic producers rise from Q_{d1} to Q_{d2} ... imports fall to $Q_2 - Q_{d2}$.
- Producers gain area S ... the tariff generates T tax revenues ... areas U & V are **deadweight losses** from reduction in **allocative efficiency**.
- Consumers lose $S + U + T + V$ in the form of higher prices and a reduction of **consumer surplus**.

Price
 $P_w + t$
 P_w
 Quantity (automobiles)
 Q_{d1} Q_{d2} Q_2 Q_1
 Imports after tariff
 Tariff = t
 Initial imports
 $S_{Domestic}$
 $D_{Domestic}$

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Trade Restrictions: Impact of a Quota

- Consider a quota on peanuts.
- Without trade restraints, P_w (the world price of peanuts) would be the domestic price. At P_w , U.S. consumers would purchase Q_1 ... Q_{d1} from U.S. producers and ... $Q_1 - Q_{d1}$ imported from abroad.
- A quota of $Q_2 - Q_{d2}$ imports pushes the U.S. price up to P_2 .
- While total U.S. purchases fall (from Q_1 to Q_2), those from U.S. producers rise (from Q_{d1} to Q_{d2}) and ... imports fall to $Q_2 - Q_{d2}$.
- U.S. producers gain area S . Area T goes to foreign producers with permits to import into the U.S.
- U & V are **deadweight losses**. Consumers lose $S + U + T + V$ in the form of higher prices and a reduction of **consumer surplus**.

Price
 P_2
 P_w
 Quantity (peanuts)
 Q_{d1} Q_{d2} Q_2 Q_1
 Import quota: $Q_2 - Q_{d2}$
 Initial imports
 $S_{Domestic}$
 $D_{Domestic}$

Note: The government derives no additional revenue from quotas.
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Why do Nations Adopt Trade Restrictions?

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Arguments Used to Justify Trade Restrictions

- Proponents of trade restrictions often use the following arguments in an effort to justify their position:
 - **National defense** argument: *domestic industry is needed for national defense purposes.*
 - **Dumping**: *the sale of goods abroad at a price below the cost of production (and below the domestic market price of the exporting nation).*
 - Dumping is illegal under U.S. law.
 - **Infant Industry** argument: *new industry needs protection so it can mature.*

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A Few Additional Issues Related to Dumping

- When considering the merits of anti-dumping restrictions, remember that:
 - Firms with large inventories (either domestic or abroad) may find it in their interest to offer goods at prices below their original cost of production.
 - Domestic firms are legally allowed to engage in this practice.
 - Lower prices benefit domestic consumers.


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Trade Restrictions are a Special Interest Issue

- “Protectionism is a politician’s delight because it delivers visible benefits to the protected parties while imposing the costs as a hidden tax on the public.” —Murray L. Weidenbaum
- The special interest effect provides the primary explanation for trade restrictions.
- Trade restrictions almost always provide highly visible, concentrated benefits for a small group of people, while imposing widely dispersed costs that are often difficult to identify on the general citizenry.
- Politicians have a strong incentive to favor special interest issues, even if they conflict with economic efficiency.

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Popular Trade Fallacies

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Trade Fallacies

- Trade fallacies abound because people often fail to consider the *secondary effects*.
- Key elements of international trade are often linked – you cannot change one element without changing the other.
 - This is the case with imports and exports; policies that restrain imports also restrain exports.

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Trade Fallacies

- **Trade fallacy 1:** "Trade restrictions that limit imports save jobs for Americans."
 - This view is false because if foreigners sell less to us they will have fewer dollars with which to buy things from us. Thus, restraints on imports will also restrain exports.
 - Trade restrictions do not "save" jobs; they merely reshuffle them. Jobs "saved" in protected industries will be offset by jobs "lost" in export industries.
 - As the result of trade restrictions, fewer Americans are employed in areas where we have a comparative advantage.

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Trade Fallacies

- **Trade fallacy 2:**
"Free trade with low-wage countries, such as Mexico and China, will reduce the wages of Americans."
 - Both high- and low-wage countries will gain when they are able to focus more of their resources on those productive activities that they do well.
 - The key to this issue is *how* will U.S. resources be used. If a low-wage country can supply a good cheaper than we can produce it, the U.S. can gain by purchasing the good from the low-wage country and using its resources to produce other goods for which it has a comparative advantage.

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Trade Openness, Income, and Growth

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Trade Openness, Income, and Growth

- Propelled by technological advancements, lower transport costs, and more liberal trade policies, international trade has approximately doubled as a share of the world economy since 1970.
- International trade helps people achieve higher income levels.

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Trade Openness, Income, and Growth

- Today, less developed countries are often at the forefront of those pushing for greater trade openness, while high-income countries often impose restrictions in order to protect various domestic industrial interests and preserve their farm subsidy programs.

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Questions for Thought:

1. "If the revenue collected by the government is taken into account, a tariff has no net impact on the welfare of a society."
-- Is this statement *true*?
2. Politicians have a strong incentive to support restrictions that limit international trade because
 - a. trade restrictions generally benefit all, or nearly all, voters.
 - b. trade restrictions generally provide highly visible, concentrated benefits for a relatively small number of people while imposing hard-to-identify-costs on others.

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Questions for Thought:

3. The imposition of tariffs, quotas, & other trade barriers are often referred to as protectionist policies. Who is being protected? What are they being protected from?
4. "Exports are good. They create jobs and help make America prosperous. On the other hand, imports destroy jobs and reduce our standard of living." Do you agree or disagree?
5. "Policies that reduce the volume of imports will also reduce the volume of exports."
-- Is this statement *true*?

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Questions for Thought:

6. In 2002, the Bush administration imposed tariffs of up to 25% on imported steel products. This action

- a. reduced the supply of steel in the domestic market and led to higher steel prices.
- b. increased U.S. employment because it saved jobs in the steel industry.
- c. reduced employment in the U.S. steel container industry because the higher steel prices made it more difficult for them to compete with foreign rivals.
- d. helped George Bush carry the state of Ohio in the 2004 presidential election.

7. Why would political officials want to prohibit their citizens from trading with foreigners?

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**End
Chapter 17**

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