Lecture 4: Terms of Trade

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Today’s Plan

• Housekeeping
• Reading quiz
• Finish up comparative advantage lecture
• Terms of Trade
  • Winners and Losers Between Countries
• 4 sessions on the economics of trade, 4 sessions on the politics of trade.

• Birdsall: part today, part tomorrow
Housekeeping

- Homework 1 due next Thursday (Sept. 11)
  - Beginning of Class. Late papers not accepted.

- How to write a good quiz question
  - CC Josh when you send those tuynman@usc.edu
Reading Quiz (1)

- According to your textbook (and modern economic theory generally), the terms of trade tend to favor:
  - A. Countries with large economies over countries with small economies
  - B. Countries with smaller economies over countries with larger economies
  - C. Militarily powerful countries over militarily weak countries
  - D. Members of the WTO over non-members
Reading Quiz (2)

• Commodity terms of trade measures the relationship between

• A. The balance of trade between a country's imports and exports.
• B. The prices a nation gets for its exports and the prices it pays for its imports.
• C. The value added to a good or service.
• D. The price of commodities and GDP.
Reading Quiz (3)

• According to Birdsall, one group of countries that has been open to trade, but nonetheless has not enjoyed growth is:
  • A. Countries that are militarily weak
  • B. Countries in SE Asia
  • C. Countries in Latin America
  • D. Countries dependent on commodity exports
While production costs determine the outer limits of the terms of trade, _______________ determine(s) what the actual terms of trade will be within those limits.

A) consumption gains  
B) reciprocal demand  
C) production gains  
D) no-trade boundaries
What determines comparative advantage?

- Factor endowments -- land, natural resources, weather...
  - Saudi Arabia has a comparative advantage in producing oil
  - Florida has a comparative advantage producing oranges

- Past investments -- how much of what type of capital you have
  - Education, infrastructure, factories, machinery
Group Question

• Draw on the concepts from the last two lectures to answer this question:

• Assume there are no barriers to trade. I am a wealthy investor. Where should I build factories and place new equipment (i.e. where should I invest my capital)?

• Country A, with lots of land and labor and no capital of any kind
• Country B, with lots of capital of all kinds already in place

• Why?
The Big Picture

• When two countries trade, both countries gain.
  • But how are the gains divided? Who benefits more?

• Why don’t countries always benefit from trade?
  • Why is trade openness sometimes dangerous for poor countries?
Review: Countries Export What They Make Efficiently
• If it specializes completely, the US can make either 60 bushels of wheat or 120 cars. Canada can make a max of either 160 bushels of wheat or 80 cars.

• Q. What is the lowest price (in terms of wheat) that the US will accept for one car?
  • A. 1/2
  • B. 1
  • C. 2
  • D. 3
• If it specializes completely, the US can make either 60 bushels of wheat or 120 cars. Canada can make a max of either 160 bushels of wheat or 80 cars.

• Q. What is the highest price (in terms of wheat) that Canada will pay for one car?
  • A. 1/2
  • B. 1
  • C. 2
  • D. 3
Terms of Trade

- Canada Cost Ratio (2:1)
- Improving U.S. Terms of Trade
- Improving Canadian Terms of Trade
- Region of Mutually Beneficial Trade
- U.S. Cost Ratio (0.5:1)
The Importance of Being Unimportant

• Instead of Canada and the US, what if it is Peru and the US
  • Peru is specializing in wheat, wants to trade of US cars

• Q. Without trade, what is the US price of a car?
  • 1/2 bushel

• The US already produces a lot of cars and a lot of wheat. If a little bit of Peruvian wheat shows up on the market, what’s going to happen? Why?

• Peru pays (just over) 1/2 bushel for each car. Even though they would be willing to pay 2 bushels.
The Global Price

• Many goods have a global price, especially commodities
  • e.g. oil, wheat, cotton

• If a large country enters the global market, with a lot of oil, they drive the global price down.

• If a small country enters the global market with a little oil, they don’t really move the global price.
  • “Price-takers”
Terms of Trade: For the Whole Economy at Once

Terms of trade = \( \frac{\text{Export Price Index}}{\text{Import Price Index}} \times 100 \)

- Can tell us about change over time
- Can’t tell us whether the terms of trade are “high” or “low”, just “higher” or “lower” than before.
Terms of Trade: 2000-2008

- Prices in 2000 are set to 100. The chart shows 2008 prices.

<table>
<thead>
<tr>
<th>Country</th>
<th>Export Price Index</th>
<th>Import Price Index</th>
<th>Terms of Trade</th>
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<tbody>
<tr>
<td>Australia</td>
<td>273</td>
<td>149</td>
<td>183</td>
</tr>
<tr>
<td>Canada</td>
<td>185</td>
<td>146</td>
<td>127</td>
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<tr>
<td>United States</td>
<td>167</td>
<td>147</td>
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<td>Japan</td>
<td>103</td>
<td>182</td>
<td>57</td>
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According to this chart

- A. China’s terms of trade are low, indicating they did not benefit from trade in 2008
- B. China’s terms of trade are low, indicating that their trading partners reaped most (but not all) the gains from trade in 2008
- C. China’s terms of trade declined from 2000 to 2008 because the goods they import became much more expensive
- D. China’s gains from trade declined from 2000 to 2008 because they goods they export became much cheaper.
Is Trade Good for Poor Countries?

- Small economies have the most to gain from trade.
  - Autarky is a lot more plausible if you’re big
  - Terms of trade should generally be favorable
- Most poor countries have small economies, so trade should be good for them, but...
How Trade is Sometimes Bad for Poor Countries

• Trade -> volatility
  • Volatility is particularly hard on poor countries
  • Poor countries have trouble compensating trade “losers” within the country

• Many are commodity dependent
  • It is hard to adjust when commodity prices fall

• Global trading rules tend to favor rich countries
  • We’ll talk about this more next week
Volatility: (Check Out My Art Skillz)

- Fluctuations in global prices create winners in losers in an open economy.
- Government can provide a safety net for losers:
  - Unemployment benefits, job training, etc.
  - Poor countries often can’t afford these programs -- there is no safety net
Commodity Prices: Falling or Rising?

• Paul Ehrlich: Author of *The Population Bomb*
  • Predicted mass famines, “age of scarcity”
• Julian Simon: “Cornucopian” theory
  • Shortages -> brief increase in price -> innovation -> low prices
    • ex: copper

• The wager: whether a set of 5 metals would rise or fall in price between 1980 and 1990.
  • Simon won
  • Though over longer time periods and more commodities he likely would have lost
Or Just Volatile?

Global commodity prices since 1900

*US $*

- World War I
- 1970's oil shock
- Great depression
- World War II

*MGI Commodity Index (1999-2001 = 100)

Source: McKinsey & Company