

# Econ 101 – Section 5

Lecture 6  
Comparative Advantage

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## Logic of Free Trade

- If each of us had to produce our own clothing, food, shelter, etc. we would not have much time left for other activities and whatever we did produce ourselves would undoubtedly be of poorer quality
- The ability to specialize in producing what we have a relative advantage in allows us as individuals to benefit from trading with each other

## Lecture Outline

- Logic of trade
- Absolute and comparative advantage
- Theory of comparative advantage
- Gains from specialization
- Terms of trade
- Example – HW 2 question #4

## Logic of Free Trade

- Like we as individuals benefit from trade with others, groups of people can benefit with trade with other groups of people
  - A benefit arises when one group (i.e. a country) has a comparative advantage in the production of another good.

## Logic of Free Trade

- Most of us like to believe we can be self-sufficient and do not need to rely on others
- However, if it were not for our trading (our money) with other individuals, most of us would not be able to enjoy:
  - Quality clothing
  - A large selection of food products
  - Car (I am assuming no one here in this room can make a car on their own)
  - Computers – Can anyone here build their own computer “from scratch”?

## Theory of Comparative Advantage

- Absolute Advantage
  - A country has an absolute advantage in a good when it can produce it using fewer resources than another country
- Comparative Advantage
  - A country has a comparative advantage in producing a good if it can produce it at a lower opportunity cost than some other country.

## Theory of Comparative Advantage

- Early beliefs held that absolute advantage was the key
- David Ricardo in 1817 argued comparative advantage was the key to mutually beneficial trade not absolute advantage

## Theory of Comparative Advantage

- Think of production in terms of opportunity cost
  - How many computers does it cost to produce a suit?
  - How many suits does it cost to produce a computer?

	Per Suit	Per Computer
China	$\frac{1}{5}$ computer	5 suits
United States	$\frac{1}{2}$ computer	2 suits

## Theory of Comparative Advantage

- Mutually beneficial trade between any two countries is possible whenever one country is relatively better at producing a good than the other country is.
  - Being relatively better means having the ability to produce a good at a lower opportunity cost – that is, a lower sacrifice of other goods foregone.

## Theory of Comparative Advantage

- What happens if there is specialization?
  - Increase Chinese suit production by 10
    - Decrease computers by 2
  - Increase US computer production by 4
    - Decrease suits by 8

## Theory of Comparative Advantage

- An example of comparative advantage
  - Production of suits and computer in China and the US

	Per Suit	Per Computer
China	2,000 CNY	10,000 CNY
United States	\$500	\$1,000

## Theory of Comparative Advantage

- What are the gains here from specialization?

	Suit Production	Computer Production
China	+10	-2
United States	-8	+4
World	+2	+2

## Theory of Comparative Advantage

- If countries specialize according to their comparative advantage, a more efficient use of given resources occurs.
  - With the same number of total resources the world can produce more of at least one good without decreasing production of any other good.

## Theory of Comparative Advantage

- Terms of Trade
  - Is the ratio where a country can trade domestically produced products for foreign-produced products
  - In the example 9 suits are traded for 3 computers
    - The terms of trade here are 3-1
      - That is, 3 suits for each computer (9 suits for 3 computers)

## Theory of Comparative Advantage

- Gains from international trade
  - For each country to be better off with trade than they were without trading.
  - China exports 9 suits and imports 3 computers
  - US exports 3 computers and imports 3 suits

## Theory of Comparative Advantage

- What are the constraints on the terms of trade?
  - China would never give up more than 5 suits to import 1 computer. Why?
  - Similarly, the US would never give up 1 computer to import less than 2 suits. Why?

## Theory of Comparative Advantage

	Production	Loss from Exports (-) or Gain from Imports (+)	Net Gain
<b>China</b>			
Suits	+10	-9	+1
Computers	-2	+3	+1
<b>United States</b>			
Suits	-8	+9	+1
Computers	+4	-3	+1

## Theory of Comparative Advantage

- Example: HW#2 question 4 hats and wheat production in the US and Russia

	Per Winter Hat	Per Bushel of Wheat
US	\$10	\$1
Russia	5,000 rubles	2,500 rubles