

# Global Economics Analysis

## Study Session 6

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# “Gaining from International Trade”

## Chapter 17

LOS: State the conditions under which a nation can gain from international trade, and describe benefits of international trade

1. Absolute and comparative advantage.

Two main concepts

Absolute cost       $\longrightarrow$       Absolute advantage

Opportunity cost       $\longrightarrow$       Comparative advantage

Just two countries, no other cost than producing.

	<u>Output per worker day</u>		<u>Potential Change in Output</u>		
	Food	Clothing	Workers	Food	Clothing
United States	2	1	3 C to F	+ 6	- 3
Japan	3	9	1 F to C	- 3	+ 9
<b>Change in Total Output</b>				<b>+ 3</b>	<b>+ 6</b>

Japan has an absolute advantage in both Food and Clothing.

The US a comparative advantage in Food vs. Japan that has a comparative advantage in Clothing.



LOS: State the conditions under which a nation can gain from international trade, and describe benefits of international trade

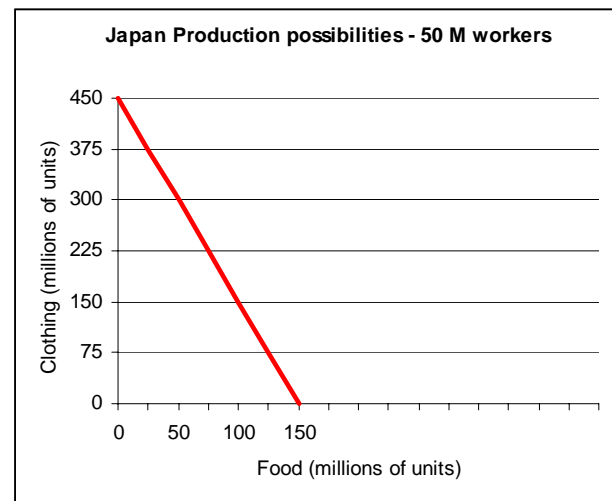
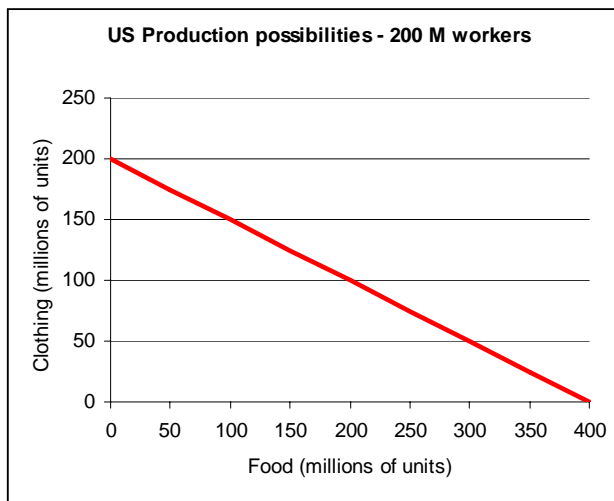
## 2. How trade can expand consumption possibilities.

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The US has a comparative advantage in Food vs. Japan that has a comparative advantage in Clothing. The US sells Food to buy Clothing.

Maximum price Japan would pay C/F ( $9/3=3$ ), opportunity cost of Japan.

Minimum price US would sell for F/C ( $1/2$ ), opportunity cost of US.



LOS: State the conditions under which a nation can gain from international trade, and describe benefits of international trade

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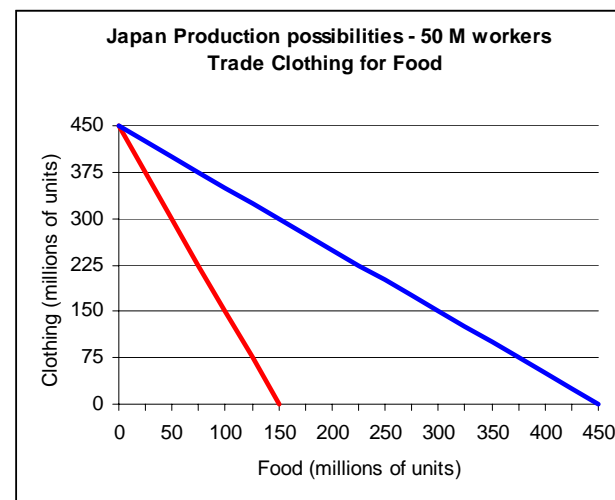
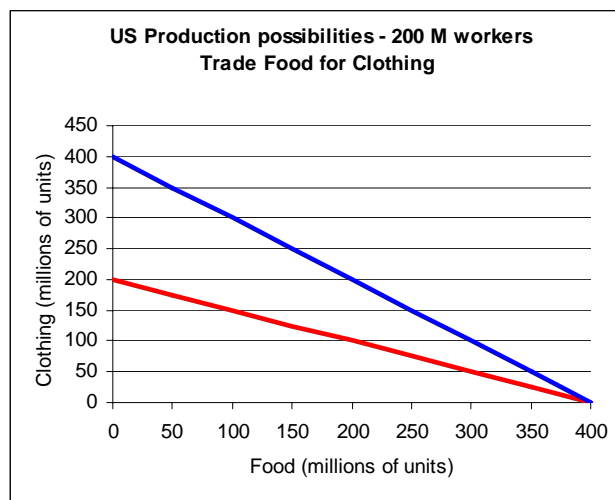
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Ranges for trading between the two countries based on their competitive advantages

US: Food for Clothing for a price between  $\frac{1}{2}$  and 3

Japan: Clothing for Food for a price between  $\frac{1}{3}$  and 2

Assume the reach an agreement on a price acceptable by both one-to-one



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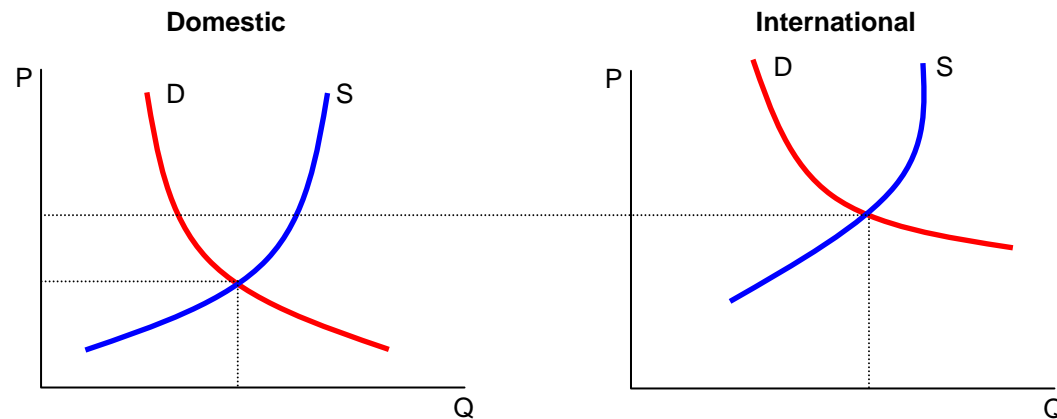
### 3. Additional considerations of international trade.

- It allows firms to realize economies of scale.
- It benefits domestic consumers by allowing them to purchase from large scale producers abroad.
- It promotes competition and allows consumers to purchase a wider variety of goods.

Because of the need for foreign exchange to purchase imports, a country must have exports if it wants imports.

LOS: Discuss the effects of international trade on domestic supply and demand

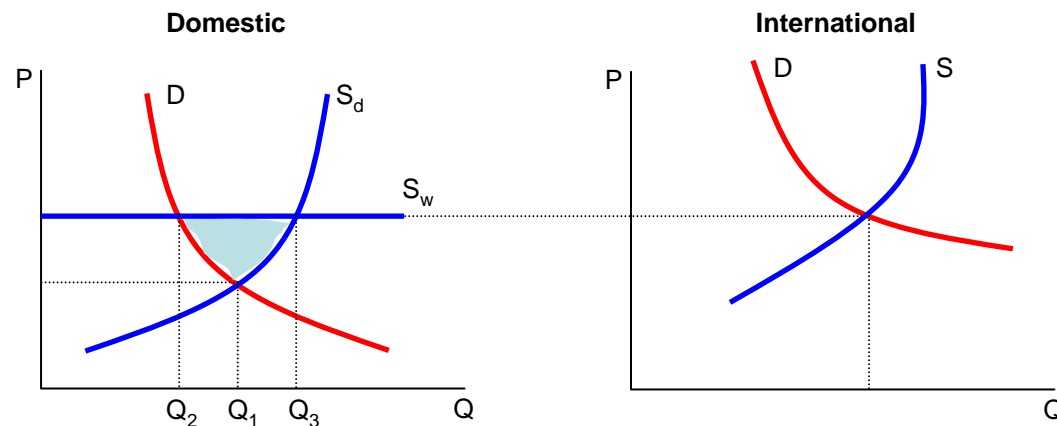
International trade can also be analyzed from the framework of supply and demand.  
Two markets, domestic and international for soybeans.



International markets for soybeans have a higher equilibrium price.

LOS: Discuss the effects of international trade on domestic supply and demand

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Free trade leads to a net welfare gain, the gains of producers outweigh the losses to the consumers.

Same would be true for products where the US does not have a comparative advantage, like shoes.

LOS: Describe commonly used trade-restricting devices.

LOS: Explain the impact of trade barriers on the domestic economy and identify who benefits and loses from imposition of a tariff

Although the gains from trade are very apparent, countries create barriers to trade using tariffs and quotas:

- Tariffs: A tax imposed on imports
  - They benefit domestic producers and governments due to an effective increase in prices
  - They cause a shift from comparative advantage product to high cost producing products
- Quota: Import quantity limitation
  - They just benefits domestic producers, and those foreign producers allow to sell.
  - They can be more harmful than tariffs because:
    - . Governments do not receive any funds
    - . Foreigner producer receive the transfer
- Voluntary export restraints (VERs)
- Exchange-rate control

Empirical evidence show that countries imposing trade barriers fail to realize their full economic potential.

LOS: Explain why nations adopt trade restrictions.

LOS. Discuss the validity of the arguments for trade restrictions.

1. National defense argument
2. Infant industries argument
3. Anti-dumping argument

1. Do trade barriers protect jobs? NO
2. Do trade restriction create jobs? Yes in the short term, No in the long run.
3. Does trade with low-wage countries depress wage rates in high-wage countries? NO

# “International Investments”

## Chapter 1

LOS: Define direct and indirect methods of foreign exchange quotations.

Direct exchange: Domestic price of a foreign currency: \$1.2356 / €

Indirect exchange: Amount of foreign currency equivalent to one unit of the domestic currency: 0.8093 € / \$

LOS: Calculate the spread on a foreign currency quotation.

Spread: Difference between the rate at which the bank is willing to commit itself today to buy (bid) foreign currency and to sell (ask).

$$100 \times \frac{(ask - bid)}{ask} \%$$

LOS: Explain how spreads on foreign currency quotations can differ as a result of market conditions, bank/dealer positions, and trading volume.

Spreads differ as a result of market conditions and trading volume but not dealer positions.

The size of the bid-ask spread increases with exchange rate uncertainty (volatility) because of bank/dealer risk aversion.

Spreads are larger for currencies that have low trading volume, thinly traded currencies.

LOS: Convert direct (indirect) foreign exchange quotations into indirect (direct) foreign exchange quotations.

Two principles apply:

- The DC/FC direct ask exchange rate is the reciprocal of indirect bid exchange rate.
- The DC/FC direct bid exchange rate is the reciprocal of the indirect ask exchange rate.

<b>Quote in the United States</b>	<b>Bid</b>	<b>Ask</b>
Direct \$/€	\$1,2356	\$1,2359
Indirect €/€	0,8091 €	0,8093 €

LOS: Calculate currency cross rates given two spot exchange quotations involving three currencies.

Cross rate is the exchange rate between two countries inferred from each country's exchange rate with a third country.

$$\left(\frac{FC_1}{FC_2}\right)_{ask} = \left(\frac{FC_1}{DC}\right)_{ask} \times \left(\frac{DC}{FC_2}\right)_{ask}$$

$$\left(\frac{FC_1}{FC_2}\right)_{bid} = \left(\frac{FC_1}{DC}\right)_{bid} \times \left(\frac{DC}{FC_2}\right)_{bid}$$

$$\left(\frac{FC_2}{FC_1}\right)_{ask} = \left(\frac{DC}{FC_1}\right)_{ask} \times \left(\frac{FC_2}{DC}\right)_{ask}$$

$$\left(\frac{FC_2}{FC_1}\right)_{bid} = \left(\frac{DC}{FC_1}\right)_{bid} \times \left(\frac{FC_2}{DC}\right)_{bid}$$

LOS: Distinguish between the spot and forward markets for foreign exchange.

Spot exchange rates: Rates quote for immediate currency transaction, usually to settle commercial purchases of goods and services.

Forward exchange rates: Rates contracted today for delivery and settlement in the future, usually for future transactions.

LOS: Calculate the spread on a forward foreign currency quotation.

LOS: Explain how spreads on forward foreign currency quotations can differ as a result of market conditions, bank/dealer positions...

Same as spot rates.

Spread: Difference between the rate at which the bank is willing to commit itself today to buy (bid) foreign currency and to sell (ask).

$$100 \times \frac{(ask - bid)}{ask} \%$$

Forward contracts bid-ask spreads differ as a result of market conditions and trading volume but not bank/dealer positions.

These spreads increase with the increasing maturity of the contract.

LOS: Calculate a forward discount or premium and express either as an annualized rate.

The forward discount (negative) or premium (positive) is defined as the difference between the forward rate and spot rate expressed as a percentage of the spot rate.

$$\text{premium (discount)} = \frac{(F - S)}{S} \times 100\%$$

Annualized:

$$\text{annualized premium (discount)} = \left( \frac{F - S}{S} \right) \times \left( \frac{12}{\text{months forward}} \right) \times 100\%$$

## LOS: Explain covered interest rate parity

Two currencies A and B

Exchange rates quoted as number of units of B for one unit of A (as the indirect quote of A being the domestic country)

$$\frac{(F - S)}{S} = \frac{(r_B - r_A)}{1 + r_A}$$

or an equivalent:

$$F = S \times \frac{1 + r_B}{1 + r_A}$$

Covered interest arbitrage is the process of simultaneously borrowing the DC, transferring it into FC at S, lending it, and buying a forward exchange rate contract to repatriate the FC into DC at a known F, with not proceeds from the transaction.

## LOS: Illustrate covered interest arbitrage

Covered interest arbitrage is the process of simultaneously borrowing the DC, transferring it into FC at  $S$ , lending it, and buying a forward exchange rate contract to repatriate the FC into DC at a known  $F$ , with not proceeds from the transaction.

Spot exchange rate  $S = 0.8$

One-year forward exchange rate  $F = 0.808$

One-year interest rates  $r_B = 14\%$

$r_A = 10\%$

$$F = S \times \frac{1 + r_B}{1 + r_A} = 0.8 \times \frac{1 + 0.14}{1 + 0.10} = 0.8291$$

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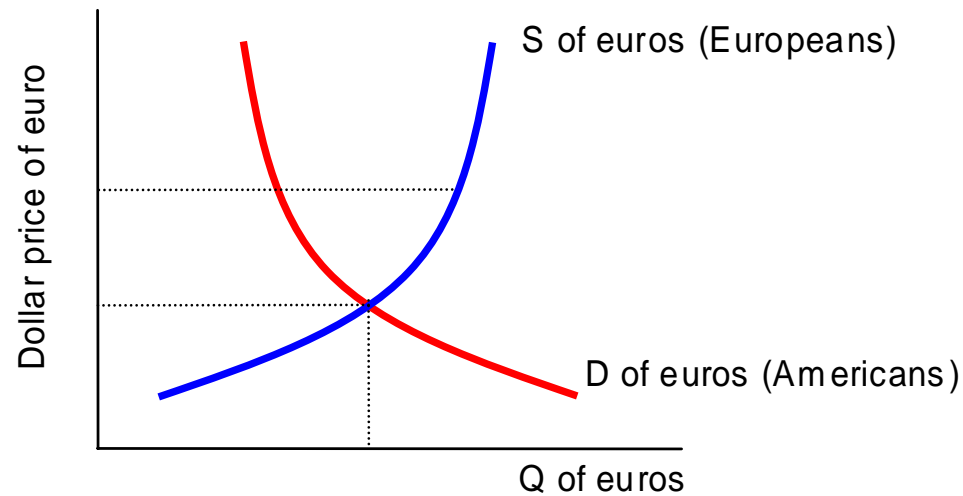
$Gain = 0.2109 \approx 3\%$

**“International Investments”**

**Chapter 2 pp. 31 - 48**

LOS: Explain how exchange rates are determined in a flexible or floating exchange rate system.

In a flexible exchange rate system regime, exchange rates are determined by supply and demand.



## LOS: Explain the role of each component of the balance of payments.

### Current account:

It covers all current transactions that take place in the normal business of residents of a country. It applies to residents abroad and nonresidents in the home country. It is made up of:

1. Exports and imports (goods)
2. Services (transportations, communications, etc)
3. Income (interest, dividends, other investment income)
4. Current transfers (gifts or other flows)

### Financial account:

It covers investments by both, residents abroad and nonresidents in the home country:

1. Direct investments made by companies.
2. Portfolio investments in equity, bonds and other securities.
3. Other investments and liabilities.

Reserve assets

LOS: Explain how current account deficits or surpluses and financial account deficits or surpluses affect the economy.

Current account deficits can be balanced by financial account surpluses.

These deficits have a negative effect on the economy only if the country cannot attract financial inflows.

LOS: Describe the factors that cause a nation's currency to appreciate or depreciate.

LOS: Explain how monetary and fiscal policies affect the exchange rate and balance-of-payments components.

Appreciation of a country's currency:

- Lower inflation rates.
- Higher real interest rates.
- Expansionary fiscal policy, for the most part.

Depreciation of a country's currency:

- Higher inflation rates.
- Lower real interest rates.
- Expansionary monetary policy, for the most part.

Effects of differences in economic performance are indeterminate.

LOS: Describe a fixed exchange rate and a pegged exchange rate system.

Fixed exchange rate system:

Rate system in which the exchange rate between currencies remains fixed at a preset level, known as “official parity”.

Currency board, a country keeps a fixed exchange rate with major currency, where the supply of home currency is fully backed by an equivalent amount of the major currency.

Pegged exchange rate system:

Rate system in which a target exchange rate (the peg) is set against a major currency.

The exchange rate is allowed to fluctuate in a narrow band around the peg.

The peg is adjusted periodically to take account of economic fundamentals.

LOS: Discuss absolute purchasing power parity and relative purchasing power parity.

Absolute purchasing power parity:

The exchange rate should be equal to the ratio of the average price levels in the two countries.

Relative purchasing power parity:

The percentage movement of the exchange rate should be equal to the inflation differential between the two countries.

Purchasing Power Parity (PPP)

$$\frac{S_1}{S_0} = \frac{(1 + I_{FC})}{(1 + I_{DC})}$$

$S_0$  : The spot exchange rate at the start of the period (in terms of FC/DC, indirect quote).

$S_1$  : Spot exchange rate at the end of the period.

$I_{FC}$  : Inflation rate, over the period, in the foreign country.

$I_{DC}$  : Inflation rate, over the period, in the domestic country.

Thank you

