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Conclusion from last lecture: there are 2 messages of comparative advantage

1. Comp Adv determines the pattern of trade (what countries trade)
2. Comp Adv creates gains from trade. Countries make themselves better off as a result of free trade (it increases the total amount of goods available).

I. Sources of Comparative Advantage

What determines comparative advantage (CA)? Definition of CA: a low relative (relative to some other good) autarky price for a good compared to other countries. Complication: major effect of trade is to make prices alike across countries, so when looking at current prices (while trading occurs), we may not see comparative advantage.

We use price, not cost as a measure of CA because costs may vary with output (upward sloping supply curve), some goods may not be produced, demand may matter (can be circumstances where demand, not supply, can determine prices in autarky. In this case a high level of demand could create a comparative disadvantage for a good).

<u>Sources of CA</u>

1. Factor Proportions (most important): primary factors of production (labor, land, human capital, physical capital, natural resources, etc.).
2. Technology (know-how): technologies differ across countries; some nations may be able to produce products others can't. Country specific technology leads to trade thru the channels of comparative advantage. However, technology today is very mobile (as in, it is not confined to a particular country), and much technology transfer occurs. Thus, we would expect that technological differences between countries matter much less now than they have in the past. Multi-National Corporations often help technology move across borders.
3. Demand:
   Low demand implies a low relative price => CA
   High demand implies a high relative price =>C-DA (disadvantage)
   this is not prevalent in the world, but is possible in theory
4. Scale Economies (increasing returns to scale): this is where costs very with output. When costs fall with output, a firm becomes more productive the more it produces. This implies a low relative cost in relatively large countries. Under these conditions a firm may get rather large and we could drift away from perfect competition into imperfect competition (oligopoly, monopolistic competition, monopoly), this complicates our results.

II. Heckscher-Ohlin (also Samuelson (Nobel Prize Winner)) **Model**

This is the Factor Proportions Model where factor proportions determine CA and trade.

<u>Main Idea</u>:

Fact 1: Countries differ in factor endowments (the amounts of factors that they have)

Fact 2: Industries differ in factor intensities. For example, the apparel industry is very labor intensive, the steel industry very capital intensive, computer industry skilled labor intensive, agriculture very land intensive, and so on.

Implication: countries have CA in those goods that use intensively their abundant factors.

Reason: Prices often reflect scarcity; so abundant factors are often relatively cheap and cheap factors produce inexpensive goods. In other words, goods that use intensively a nation's abundant factors will be cheap.

Remember: both intensiveness and abundance are to be thought of in relative terms.

Does this theory work? It probably does.
Leontief scarce factors paradox appeared to find a direct contradiction of the H-O Theorem. He found that the US was importing capital-intensive goods.
However, other research demonstrated his result was incorrect. H-O theory works especially well for describing trade between developed and developing counties (so called North-South trade).

III. Effects of Trade (when trade follows H-O Theory)
Trade causes:

1. Production of export good to rise and the import good to fall
2. Factors move out of contracting sector and into expanding sector (this may be a painful process)
3. Industries may disappear
4. Demand for abundant factor rises, demand for scarce factor falls
5. Wage of abundant factor rises, wage of scarce factor falls. Owners of the scarce factor are made worse off. Some people are better off and some are worse off (there are losers from trade).

Factor Price Equalization Theorem: perfectly free trade (with other assumptions) Samuelson shows wages of corresponding factors across countries will be equal.
Stolper-Samuelson Theorem: scarce factor loses from trade.

IV. New Trade Theory

This includes increasing returns (scale economies), imperfect competition, and product differentiation. Much of New Trade Theory is due to Paul Krugman.

Implications:

1. Countries may export and import the same good to each other (unlike the Ricardian model). It appears this happens in the world and it is called intra-industry trade.
2. Countries may lose from trade because of imperfect competition and scale economies (however, losing from trade is still unlikely).
3. More and broader reasons for gains from trade. New Trade Theory has further built the case in favor of free trade.