Evolution of Trade Theory

Chronological ordering

- Mercantilism → Theory of Absolute Advantage by Adam Smith → Law of Comparative Advantage by David Ricardo.

- Trade can also be based on other factors such as economies of scale and product differentiation.

Mercantilists' views on Trade

- Mercantilists believed that the way for a nation to become rich and powerful is to export more than it imported.
- As a result of export surplus, there would be inflow of gold and silver.
- More gold and silver a nation has, the more powerful it is.
- The government must encourage exports and discourage imports in order to ensure accumulation of more gold and silver in the country.
- Since all nations could not simultaneously have an export surplus and that the amount of gold and silver were fixed at any particular time, one nation could gain only at the expense of the others – no two nations can gain at the same time though trade.
- The mercantilists were writing primarily for rulers – with more gold, rulers could maintain larger and better armies and navies. More gold also meant more business activities.
- Encouraging exports and restricting imports were also means to stimulate national output and employment.

Trade based on Absolute advantage: Adam Smith

- A nation produces only that commodity which it can produce most efficiently (absolute advantage) and exchange part of the output for other commodities that it wants but cannot produce efficiently (absolute disadvantage).
- Resources will be utilized in most efficient manner and output of both commodities will rise => world output will rise.
- World welfare will rise through increase in welfare of each nation as both would be able to consume higher output than possible under no-trade.
- While mercantilists believed that no two nations can gain at the same time and that trade, particularly imports, must be restricted by government, Smith advocated the policy of laissez-faire (no government interference) to promote free trade.

Illustration of Absolute Advantage

	US	UK
Wheat (bushels per hour)	6	1
Cloth (yards per hour)	4	5

Gains from Trade

- Before specialization and no trade: 1 labor hour can produce only 6 units of wheat and 4 units of cloth in US, and 1 units of wheat and 5 units of cloth in UK. World total output: 7 units of wheat and 9 units of cloth.
- After specialization and trade: 1 labor hour can produce 12 units of wheat and no cloth in US, and 10 units of cloth and no wheat in UK. World total output: 12 units of wheat and 10 units of cloth.
- If now US exchanges 6W for 6C with UK, it will gain 2C because domestically it can only exchange 6W for 4C. UK on the other hand will also gain as to produce 6W it will require 6 hours of labor time. With that 6 hours instead it can produce 30C and give up only 6C for 6W.

Trade based on Comparative Advantage: David Ricardo

- Even if one nation is less efficient than the other nation in the production of both the commodities (the country has absolute disadvantage), there is still basis for mutually beneficial trade to occur.
- The nation would export the commodity in which its absolute disadvantage is smaller and import the commodity in which its absolute disadvantage is greater.

Illustration of Comparative Advantage

	US	UK
Wheat (bushels/hour)	6	1
Cloth (yards/hour)	4	2

Gains from Trade

- If US exchanges 6W for 6C with UK, it will gain 2C because domestically it can only exchange 6W for 4C. UK on the other hand will also gain 6C, as to produce 6W it will require 6 hours of labor time. With that 6 hours instead it can produce 12C and give up only 6C for 6W.

Case of no Comparative Advantage

	US	UK
Wheat (bushels/hour)	6	3
Cloth (yards/hour)	4	2

- There would be no comparative advantage if the absolute disadvantage that one nation has with respect to another nation is in the same proportion in both commodities.
- Restatement of the Law of Comparative Advantage: even if one nation has absolute disadvantage with respect to anther nation in the production of both the commodities, there is still basis for mutually beneficial trade, unless absolute disadvantage (that one nation has with respect to the other nation) is in the same proportion for the two commodities.

Assumption on Labor Theory of Value by Ricardo

- Ricardo formulated his model on the basis of labor theory of value.
- The theory states that the value or the price of a commodity depends on the amount of labor going into the production process.
- The theory then implies that – (1) either labor is the only factor of production or used in same fixed proportion in the production of all commodities; (2) labor is homogenous.
- In reality labor is neither homogenous nor the only factor of production – so labor theory of value is not valid.
- The theory of comparative advantage can then be explained on the basis of opportunity cost theory.

Opportunity cost Theory

- Haberler in 1936 explained comparative advantage in terms of opportunity cost theory – the law of comparative advantage thereafter referred to as sometimes as the law of comparative cost.
- Opportunity cost of a commodity is the amount of the second commodity that must be given up to release just enough resources to produce one additional unit of the first commodity.
- The country with lower opportunity cost in the production of a commodity has comparative advantage in that commodity and comparative disadvantage in the second commodity.

Example

	US	UK
Wheat (bushels/hour)	2/3	2
Cloth (yards/hour)	3/2	1/2

Production possibility frontier under constant opportunity costs

- Production possibility frontier or transformation curve shows alternative combinations of 2 commodities that a nation can produce by fully utilizing its resources with the best technology available to it.
- With constant opportunity costs, the PPFs would be downward sloping straight lines.
- In case of constant opportunity cost as each nation transfers resources from the production of one commodity to another, it will not have to use more of those resources that are less suited for the production of the second commodity => same amount of one commodity must be given up to produce each additional unit of the second commodity.
- Constant opportunity cost arises when (1) resources or factors of production are perfect substitutes of each other or used in same fixed proportion for the production of both the commodities; (2) all units of the same factor are homogenous or of exactly the same quality.

Opportunity cost and relative commodity prices

- Opportunity costs can be represented by the relative commodity prices.
- On the assumption that prices equal the costs of production, and the nation does produce both some wheat and cloth, the opportunity cost of wheat is equal to the price of wheat relative to the price of cloth.
- The differences in relative commodity prices between two nations (given by the differences in slopes of their transformation curves) gives rise to their respective comparative advantage in commodities and mutually beneficial trade – illustrate diagramatically.

Empirical tests of Ricardian Model

- First empirical test of Ricardian model conducted by MacDougall in 1951 and 1952 using labor productivity and export data for 25 industries in the United States and United Kingdom for the year 1937.
- For 20 industries, the ratio of labor productivity for US and UK had a positive relationship with the ratio of exports of US and UK.
- The positive relationship was reconfirmed by Balassa using 1950 data and Stern using 1950 and 1959 data.
- In separate studies Golub and Golub and Hsieh in 1995 and 2000 found support for Ricardian theory using data for US and few other developed and developing countries.

Shortcoming of Ricardian Trade Model

- Ricardo did not provide any explanation for the differences in labor productivity and therefore the comparative advantage of nations.
- Do not talk about the effects of international trade on the earning of factors of production – answered by the Heckscher-Ohlin model.