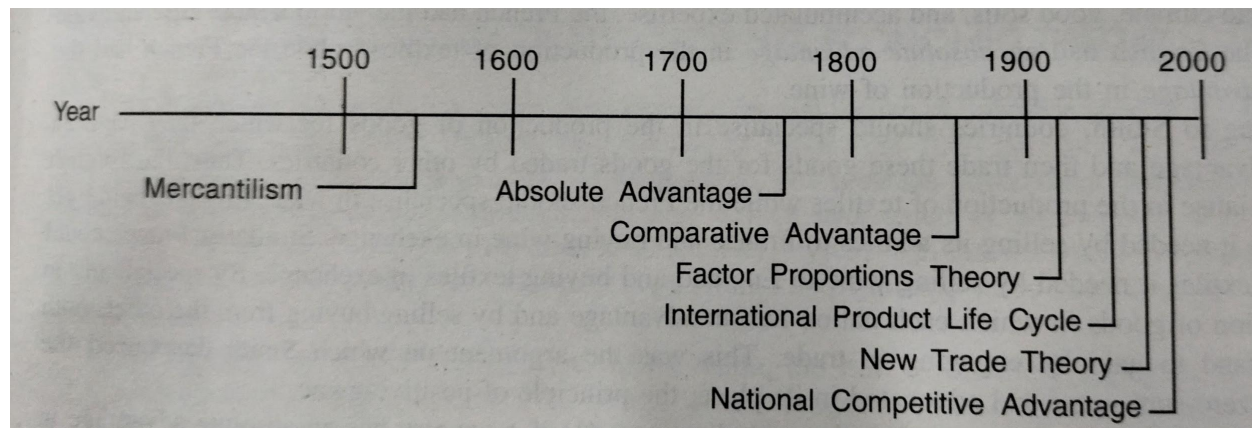


## THEORETICAL FOUNDATIONS OF INTERNATIONAL BUSINESS

Trade between and among countries has occurred for many thousands of years. But it was not until the 15th century that people tried to explain why trade occurs and how trade benefits both parties to an exchange.

The fundamental question that arises at this juncture is why should the business firms of one country go to another country, when the industries of that country also produce goods and market them? What is the basis for international business? A number of theories have been developed to explain the basis of international business.

The below figure shows a timeline of when the main theories of international trade were proposed. Efforts are being made to modify existing theories and develop new ones.



### ***THEORY OF MERCANTILISM:***

Mercantilists maintained that the way a nation became rich and powerful was to export more than it imported. The resulting export surplus would then be settled by an inflow of bullion or precious metals, primarily gold and silver. Thus, the Government had to do all in its power to stimulate the nation's exports and discourage and restrict imports (particularly the import of luxury consumption of goods).

The principle assertion of Mercantilism was that 'a nation's wealth and prosperity reflects in its stock of precious metals such as gold and silver', as at that time gold and silver were the currency of trading nations. The basic tenet of Mercantilism is to maintain a trade balance where exports are greater than imports. Consistent with this belief, the Mercantilist doctrine advocated government intervention. It means that their policy was to maximize exports and minimize imports. It means that imports were to be restricted, by means of tariff and quotas, whereas, exports were to be restricted by subsidies.

**Criticism:**

1. The theory viewed trade as a zero sum game, a gain by one results in a loss by another. Adam Smith and David Ricardo showed the short-sightedness of the approach and demonstrated that trade is a positive sum game or a situation where all the countries benefit.

2. Mercantilists measured the wealth of a nation by the stock of precious metals it possessed. In contrast, today we measure the wealth of a nation by its stock of human man-made and natural resources, available for producing goods and services. The greater the stock of useful resources, the greater is the flow of goods and services to satisfy human wants and increase the standard of living of the nation.

**THEORY OF ABSOLUTE COST ADVANTAGE:**

According to Adam Smith, trade between two Nations is based on absolute advantage. When one nation is more efficient than (or has an absolute advantage over) another in the production of one commodity but is less efficient than (or has an absolute disadvantage with respect to) two other nations in producing a second commodity than both the nation can gain by each specialising in the production of the commodity of its absolute advantage and exchanging part of its output with the other nation for the commodity of its absolute advantage. By this process resources are utilised in the more efficient way and the output of both commodities will rise. According to Smith *"weather advantage which one country has over another by natural or acquired is in this respect of no consequence"*.

**Assumptions:**

Adam Smith, believed that all Nations would gain from free trade and strongly advocated your policy of laissez-faire (i.e. as little government interference with the economic system as possible). To illustrate, let there be two countries, A and B having absolute differences in cost in producing a commodity each, X and Y respectively, at an absolute lower cost of production than the other. The absolute cost differences are given below:

Country	Commodity X	Commodity Y
A	10	5
B	5	10

From the above, country A can produce 10X or 5Y with one unit of labour and country B can produce 5X or 10Y with one unit of labour.

In the above case country A has an absolute advantage in the production of X (for 10X is greater than 5X) and country B has an absolute advantage in the production of Y (for 10Y is greater than 5Y). This can be expressed as

$$\frac{(10X \text{ of A})}{(5X \text{ of B})} > 1 > \frac{(5Y \text{ of A})}{(10Y \text{ of B})}$$

Trade between two countries will benefit both if A specialises in the production of X and B in a production of Y as is shown below;

Commodity → Country ↓	Production before trade (1)		Production after trade (2)		Gains from trade (2 - 1)	
	X	Y	X	Y	X	Y
A	10	5	20	--	+10	-5
B	5	10	--	20	-5	+10
Total production	15	15	20	20	+5	+5

The above table reveals that before trade both countries produce only 15 units each of the two commodities by applying one labour unit of each commodity. If they were specialised in producing commodity X and use both units of labour on its total production will be 20 units of X. Similarly, if B were to specialise in the production of Y above, its total production will be 20 units of Y. Combined gain to both countries from trade will produce 5 units of X and Y.

### ***Criticism:***

1. That theory is vague and lack clarity
2. According to this theory every country should be able to produce certain products at low cost compared to other countries and should produce certain products at comparatively higher cost than other countries. International trade takes place only under such conditions. But in reality most of the developing countries do not have the absolute advantage of producing at the lowest cost of any commodity yet, they participate in international business. Thus, Smith's analysis is weak and unrealistic.

### ***THEORY OF COMPARATIVE COST ADVANTAGE:***

According to the Comparative Cost Theory, countries in the long run will tend to specialize in the business (production and marketing) of those goods in whose business they enjoy comparative low cost advantage and import other goods in which the countries have comparative cost disadvantage, if free trade is allowed. This specialization helps in the mutual advantage of the countries participating in international business. David Ricardo illustrated the Comparative Cost Theory in 1817. He used two countries' two-commodity models. The conclusions of his model are:

1. Trade between two countries is profitable when a country produces one good at a lower cost than another country and that other country produces another good at a lower cost than the former country.
2. Trade between two countries is also profitable when one country produces more than one product efficiently, but when it produces one of these products comparatively at greater efficiency than the other product.
3. Both the nations can engage in international trade when one country specializes in production in which it has greater efficiency than the other.

***Assumptions:***

1. There are only two countries.
2. They produce the same two commodities.
3. There are similar tastes in both countries.
4. The only element of cost of production is labour.
5. The supply of labour is unchanged.
6. All units of labour is homogeneous.
7. Prices of two commodities are determined by labour cost i.e. the no. of labour units employed to produce each.
8. Production is subject to the law of constant returns.
9. Technological knowledge is unchanged.
10. Trade barriers between the two countries take place on the basis of the barter system.
11. Factors of production are perfectly mobile within each country but are perfectly immobile between countries.
12. There is free trade between the two countries, there being no trade barriers or restrictions in the movement of commodities.
13. Trade is free from cost of transportation.
14. All factors of production are fully employed in both the countries.
15. The international market is perfect so that the exchange rate for the two commodities is the same.

***Explanation of the theory:***

Suppose the production of a unit of wine in England requires 120 men for a year, while a unit of cloth requires 100 men for the same period. On the other hand, the production of the same quantities of wine and cloth in Portugal requires 80 and 90 men respectively.

Thus England uses more labour than Portugal in producing both wine and cloth. Hence Portugal possesses an

absolute advantage in both wine and cloth. Amongst the two Portugal's greater advantage is production of wine and exporting to England. Since the cost of production of wine 80/120 men is less than the cost of production of cloth 90/100 men. On the other hand, it is England's interest to specialize in the production of cloth in which it has least comparative disadvantage. Since, the cost of production of cloth in England is less (100/90 men) as compared with wine (120/80 men).

Thus trade is beneficial for both the countries.

***Derivatives of the theory:***

The advantages desired from this theory are:

1. Efficient allocation of global resources.
2. Maximization of global production at the least possible cost.
3. Product prices become more or less equal among world markets.
4. Demand for resources and products among world nations will be optimized.

***Case: Cost Comparative Difference:***

There may be a second case, where two countries can produce two commodities. The factors of production may be so distributed that one country may produce both the commodities at a lower cost than the other country, but the greater advantage lies in the production of any one commodity

instead of two. There is, therefore, a need for specialization. This is explained below.

Suppose:

In India, 10 days of labour can produce 100 units of cotton or

In India, 10 days of labour can produce 100 units of jute.

In Pakistan, 10 days of labour can produce 40 units of cotton or

In Pakistan, 10 days of labour can produce 80 units of jute.

In this example, the internal cost-ratio between cotton and jute in India is 100:100 or 1 unit of cotton = 1 unit of jute.

Similarly, the internal cost-ratio in Pakistan, between cotton and jute is 40:80 or 1 unit of cotton = 2 units of jute.

Comparative cost difference implies that one of the two countries has an absolute advantage in the production of one commodity, then in the production of the other. In our example, India has an absolute advantage in the production of both the goods, since it can produce both cotton and jute at a lower cost, as compared to Pakistan. But India's advantage is comparatively greater in the production of cotton, than in jute:

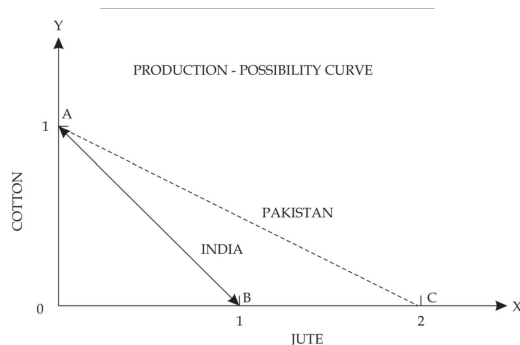
$$\frac{100 \text{ units of cotton in India}}{40 \text{ units of cotton in Pakistan}} > \frac{100 \text{ units of jute in India}}{80 \text{ units of jute in Pakistan}}$$

On the other hand, Pakistan has cost disadvantages in the production of both the goods, but its comparative cost disadvantage is less in the production of jute, than in cotton. To express the idea differently, Pakistan has a comparative cost advantage in the same production of jute, than in cotton:

$$\frac{80 \text{ units of jute in Pakistan}}{100 \text{ units of jute in India}} > \frac{40 \text{ units of cotton in Pakistan}}{100 \text{ units of cotton in India}}$$

International trade will be beneficial to both the countries, if each of them specializes in the production of that commodity, in which it has comparative cost advantage. India, therefore, will be prepared to specialize in cotton and export part of it, so long as it can get more than one unit of jute for 1 unit of cotton.

Pakistan, on the other hand, will specialize in jute, provided it can secure 1 unit of cotton for 2 units of jute. Any rate between 1 to 2 units of jute for 1 unit of cotton, will benefit both the countries. Under such conditions, international trade is beneficial and hence, possible between the two countries.



In the figure, the line AB, represents the production-possibility curve for India and is based on the cost-ratio of 1 unit of cotton = 1 unit of jute. Line AC, explains the production-possibility curve for Pakistan and is based on the internal cost-ratio of 1 unit of cotton = 2 unit of jute. BC, is a pure economic surplus, which is to be shared by the two countries through trade. Any rate of exchange between B and C will be beneficial to the two countries.

#### ***Criticism of the theory:***

- Assumption of labour cost is no longer valid, therefore with the collapse of this major support the theory falls flat
- Labour is not the only factor factors like capital and entrepreneur assume greater importance as labour on this account the theory is highly and realistic and ineffective

- The theory is static in the sense and unalterable assumptions like full employment and fixed and constant supply of factors of production are far from reality
- Transportation costs are ignored. Hence comparative advantage theory was outweighed by the transport costs
- The theory has also been criticized on the ground that it takes into consideration of only two countries having only two commodities to exchange

### ***RELATIVE FACTOR ENDOWMENT THEORY/ HECKSCHER-OHLIN THEORY:***

Two Swedish economists, Eli Heckscher & Bertil Ohlin developed the factor proportion theory of International Trade, also known as the modern theory of International Trade. The modern theory of International Trade reveals the causes responsible for differences in international trade.

#### ***Statement of the theory:***

According to this theory, there is a difference in factor endowments among different countries of the world. For instance, certain countries have a comparatively large supply of labour while in others the supply of capital is relatively large. Because of the difference in factor endowments there is a difference in the prices of the factors. Difference in the prices of the factors depends on their relative scarcity or abundance. Owing to the difference in the prices of the factors, there is a difference in the costs of the goods. Hence, this theory states that the main cause of difference in Comparative costs is the difference in factor endowment. Thus, international trade takes place

because of diversity in factor endowments and hence difference in prices. Each country will export that commodity in the production of which such a factor is used whose supply is relatively abundant and price is relatively cheaper. On the other hand, it will import that commodity in the production of which that factor is used whose supply is relatively scarce and price is relatively dearer. According to this theory, conditions of supply alone determine the pattern of international trade

#### ***Assumptions:***

1. This theory relates to two countries, two commodities and two factors. It is therefore called  $2 \times 2 \times 2$  model.
2. There is the same production function for each commodity in two countries.
3. Factors are mobile within the country but immobile between two countries.
4. There is perfect competition in all markets. As a result (i) all factors are fully employed, (ii) factors get their reward in accordance with their marginal productivity, (iii) prices of the commodities are equal to their marginal productivity.
5. No restriction is imposed on the exchange of goods, i.e., free trade exists between two countries.
6. Consumers' tastes and preferences are identical in two countries.
7. Technique of production employed in two countries is the same.
8. There is a lack of transport costs.
9. Factor endowments are different in two countries.

10. Goods can be classified on the basis of factor intensity, such as, capital intensive goods and labour intensive goods, etc.

11. Production function of all goods is homogeneous to the first degree. It means that output will be doubled if all factors of production are doubled.

***Explanation of Theory:***

According to Ohlin "International Trade is but a special case of inter-regional trade." Different regions have different factor endowments, i.e., some regions have abundance of labour but scarcity of

capital while other regions have abundance of capital but scarcity of labour. Different goods have

different production functions, i.e., factors are combined in different proportions to produce different commodities. Some goods are produced by employing a relatively large proportion of labour and a relatively small proportion of capital. Still other goods are produced by employing a relatively small proportion of labour and a relatively large proportion of capital.

In this way, each region is suitable for the production of those goods for whose production it has relatively

abundant supply of the required factors. A region is not suitable for the production of those goods for whose production it has relatively scarce or zero supply of the essential factors.

Hence, different regions have different capacities to produce different commodities. Difference in factor endowments is, therefore, the main cause of international trade along with inter-regional trade.

Heckscher in his article, "The effect of Foreign Trade on the Distribution of Income" published in 1919 had supported the classical theory of comparative costs and maintained that international trade took place because of differences in comparative costs. But classical theory did not explain

why there was a difference in comparative costs. Answering to this question, Heckscher cites the

following causes for difference in comparative costs:

1. Difference in factor endowments
2. Difference in factor intensities.

According to Heckscher-Ohlin Theory of International Trade, the immediate cause of international

trade is the difference in relative commodity prices. The cause of difference in the relative prices of

the goods is the difference in the amount of factor endowments, like capital and labour, between the two countries. As a result, there is a difference in the relative demand and supply of factors.

These differences cause differences in the prices of the factors. It is due to difference in factor prices that difference in the relative prices of commodities takes place and it is this difference that constitutes the main cause of international trade.



**Criticisms:**

- Unrealistic Assumptions
- One-sided theory
- Static in nature
- Withholds criticism
- Consumer's demand ignored
- Restrictive
- Other factors neglected

**THE PRODUCT LIFE CYCLE THEORY:**

Another theory that provides insights into global trade theory is Vernon's International Product Lifecycle (IPLC) model, which concerns the stages of production of a product with new "know-how". Such a product is first produced by the parent firm, then by its foreign subsidiaries, and finally anywhere in the world where costs are the lowest. The theory helps explain why a product that begins as a nation's export ends up becoming an import.

**Stages of Product Life cycle Theory:**

The IPLC has three stages: New product, maturing product, and standardised product

*New product stage:* A new product is one that is innovative or unique in some way. Initially, consumption is in the home country, price is inelastic, profits are high, and the company seeks to sell to those willing to pay a premium price. As production increases and exceeds local consumption, exports start taking place.

*Maturing product stage:* As years go by, the product enters the mature phase of its lifecycle, an increasing percentage of sales is achieved through exporting. Simultaneously, competitors in other advanced countries will be working to develop substitute products so that they can replace the initial product with one of their own. The introduction of these substitutes and the softening of demand for the original product will eventually result in the firm that developed the product now switching its strategy from production to market protection. Attention will also be focussed on tapping markets in less developed countries.

*Standardized product stage:* As the product enters the standardised product stage, the technology becomes widely diffused and available. Production tends to be shifted to low-cost locations, including, less developed countries and off-shore locations. The firm will also try to differentiate the product and to prevent the emergence of price competition, where price is the sole determinant of demand. The product-life cycle theory predicts that initially, the comparative advantage will exist in the innovating country, but over time, as the product becomes standardised, the country of comparative advantage will shift to lower factor cost locations. Moreover, the theory points out that the innovative firm will start out as an exporter, and increasingly move towards direct investment abroad

### ***Trade Implications of the Product Cycle Theory:***

Product cycle theory shows how specific products were first produced and exported from one country but, through product and competitive evolution, shifted their location of production and export to other countries over time. As the product and the market for the product to mature and change, the countries of its production and export shift.

The product is initially designed and manufactured in the United States. In its early stages. The United States is the only country producing and consuming the product.

Production is highly capital-intensive and skilled-labour intensive at this time. These countries possess

the resources to purchase the product in its still. New Product Stage, in which it is relatively high priced. These other advanced countries also commence their own production at time, and continue to be net importers. A few exports, however, do find their way to the less developed countries at this time as well.

As the product moves into the second stage, the Maturing Product Stage, production capability expands rapidly in the other advanced countries. Competitive variations (products) begin to appear as the basic technology of the product becomes more widely known, and the need for skilled labour in its production declines. These countries eventually also become net exporters of the product near the end of the stage.

Meanwhile, the lower cost of production from these growing competitors turns the United States into a net importer by time. The competitive advantage for production and export is clearly shifting across countries at this time.

The third and final stage, the Standardized Product Stage, sees the comparative advantage of production and exports shifting to the less developed countries. The product is now a relatively mass-produced product that can be made with increasingly less-skilled labour. The United States

continues to reduce domestic production and increase imports. The other advanced countries continue to produce and export, although exports remain at peak as the less developed countries

expand production and become net exporters themselves. The product has run its course or life cycle in reaching time.

### ***Criticisms:***

This theory has been criticized because of the following weaknesses:

1. Applicable on technology-based products: The technology-based products normally experience the changes in the production process as they grow and mature. Other products such as resource-based (minerals) or services which employ capital in the form of human capital is not easily characterized by the stages of maturity.

2. Most new products are not developed and introduced in the United States: Although it may be true that from 1945 to 1975, most new products were introduced in US, there have always been important exceptions. In recent years, it has been noted that many new

products are now introduced in Japan, US and the advanced European nations (laptops, computers, compact disks and electronic cameras).

It is thus evident from above that Vernon theory may be useful for explaining the pattern of international trade during the brief period of American global dominance; its relevance, however, in the modern world is limited.

### **HABERLERS THEORY OF OPPORTUNITY COST:**

Gottfried Haberler has attempted to restate the comparative costs in terms of opportunity cost. He demonstrates that the doctrine of comparative costs can hold valid even if the labour theory of value is discarded. The theory determines the cost of producing a commodity in terms of the alternative production that has to be foregone for producing the commodity in question.

Elaborating upon the opportunity cost, Haberler writes that “the marginal cost of a given quantity X of a commodity A must be regarded as that quantity of commodity B which must be foregone in order that X, instead of (X-1) units of A can be produced. The exchange ratio on the market between A and B must equal their costs in this sense of the terms.”

The opportunity cost is what has been given up in order to have some quantity of another thing. If an additional unit of one commodity has to be produced, the productive resources are to be diverted from the production of some other commodity to the given commodity.

The resultant decrease in the quantity of the second commodity represents the opportunity cost of the additional quantity of the given commodity. For instance, if India has to reduce the production of cotton by 2 lakh bales in order to raise the production of wheat by 1 lakh tons, then the opportunity cost of one unit of wheat is two units of cotton ( $1W = 2C$ ).

Haberler made use of the opportunity cost curve to express the opportunity cost of one commodity in terms of the other. The opportunity cost curve has been called as the ‘transformation curve’ or ‘production possibility curve’ by Paul Samuelson and ‘production frontier’ or ‘production indifference curve’ by A.P. Lerner.

Assumptions of Haberler’s Opportunity Cost Theory:

- (i) The economic system is in a state of full employment equilibrium.
- (ii) There is perfect competition in commodity and factor markets.
- (iii) Price of each commodity equals the marginal cost of producing it.
- (iv) Price of each factor equals its marginal productivity.
- (v) The supply of factors is fixed.

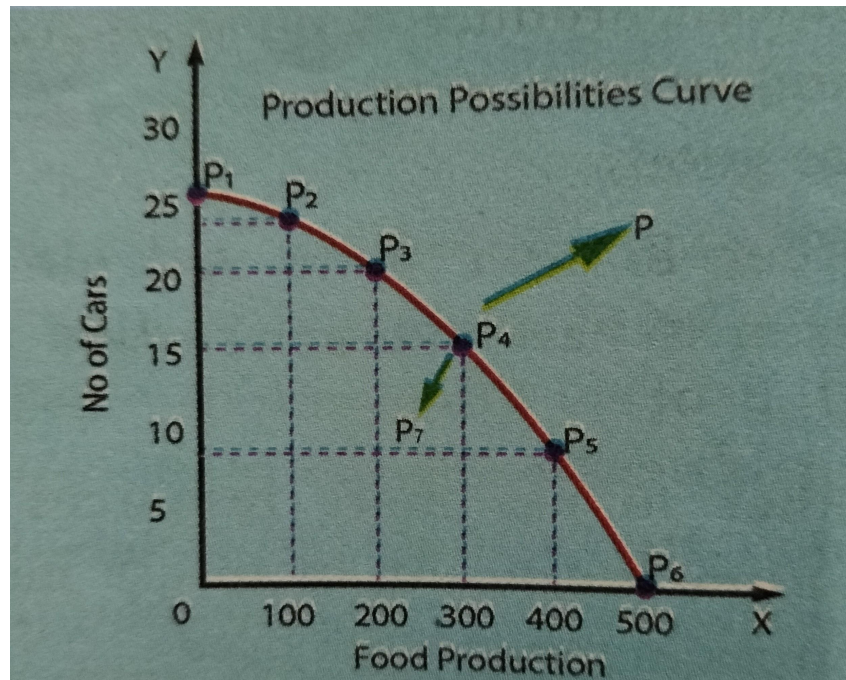
- (vi) The state of technology is given.
- (vii) There are two trading countries A and B.
- (viii) Each country produces two commodities, say X and Y
- (ix) Each country has two productive factors- capital and labour.
- (x) There is perfect mobility within each country.
- (xi) The factors of production are perfectly immobile between the two countries.
- (xii) Neither of the two countries imposes any restrictions upon international trade.

On the basis of the above assumptions, it is possible to determine the opportunity cost curve or the production possibility curve of any country.

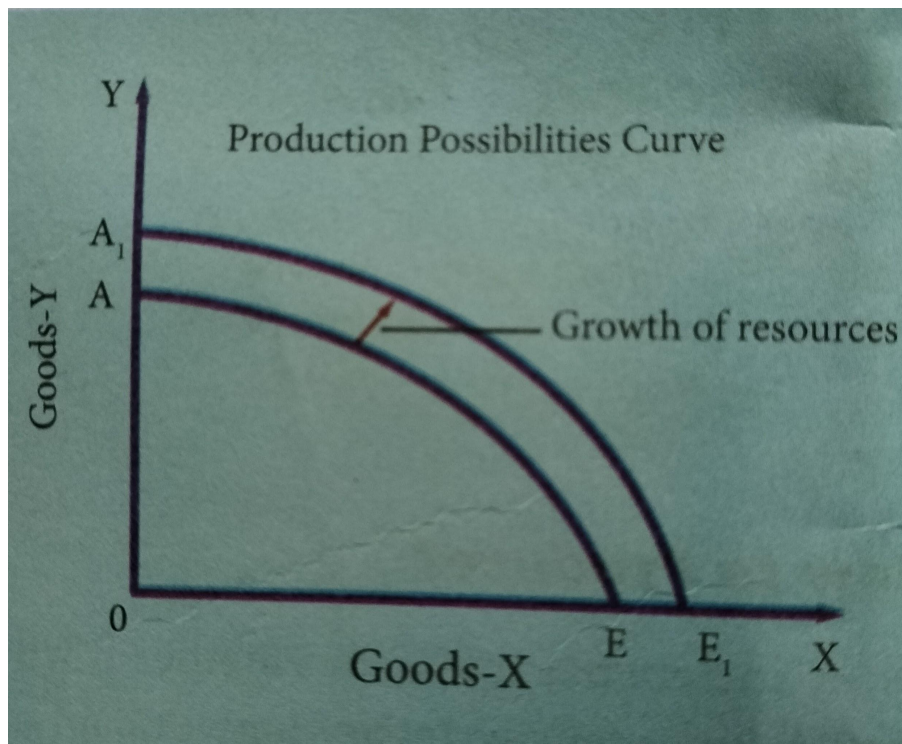
The production possibility curve indicates different combinations of two commodities that a country can produce with the given factor endowments and technology. The slope of the production possibility curve is determined by the ratio of units of the commodity given up in order to have one unit of the other commodity. This ratio is termed as a marginal rate of transformation (MRT). To draw this can we take the help of production possibility schedule, as shown:

Production Possibilities	Quantity of food production In tons	No of cars Production
I	0	25
II	100	23
III	200	20
IV	300	15
V	400	8
VI	500	0

This schedule suggests that if all resources for thrown into the production of food, a maximum of 500 tons of food can be produced, given the existing Technology. If on the other hand all resources are instead used for producing cars, 25 cars can be produced. In between these two extreme possibilities exist. If we are willing to give up some food, we can have some cars.



We can obtain a production possibility curve by drawing production possibilities schedule graphically. The quantity of food is shown on x-axis and the number of cars is shown on y-axis, the different six production possibilities are being shown as point P<sub>1</sub>, P<sub>2</sub>, P<sub>3</sub>, P<sub>4</sub>, P<sub>5</sub> and P<sub>6</sub>.



If we assume that innumerable production possibilities exist between any two production possibilities, we get a production possibility curve P1 to P6. This shows the locus of points of the different possibilities of production of two commodities, which a firm or an economy can produce, with the help of given resources and the techniques of production. Points outside the production possibility (e.g. Point P) are unattainable as society's resources of production are not sufficient to give output beyond the curve. Points lying inside the curve like P7 are attainable by the society but at these points resources are not fully employed. For example, if society is producing at point P4 then it can increase the production of food keeping the number of cars constant or it can increase the production of cars keeping the food grain output constant or it can increase the output of both the goods simultaneously.

Shift of production possibility curve,

The PPC shifts upward or downward due to:

1. The change in the supply of productive resources and
2. The change in the state of Technology.

The production capacity of an economy grows overtime to increase in resource supplies and improvement of Technology. This enables PPC to shift upward from AE to A1 E1 as shown in figure. This outward shift of the PPC is basic feature of economic growth.

The opportunity cost curve assumes this slope, when production is governed by diminishing returns to scale. As there is an increase in the production of X commodity, Y commodity decreases. This case seems to be more realistic because in this situation, a greater availability of X commodity shows a decreasing significance of this commodity in terms of units of Y commodity.