

Most of the backward countries with inefficient labour and machinery may not be enjoying absolute advantage in any line of ^{production} activity. In such cases, the theory fails to provide explanation of ~~to~~ the basis of trade.

② Adam Smith simply indicated the fundamental basis on which international trade rests. But the theory had failed to explore the factors influencing trade between two or more countries.

③ This theory assumes labour as the only factor of production, and ignores other factors contribution to the process of production.

~~Ricardo's~~ Ricardo's Theory of Comparative Cost Advantage

The comparative cost advantage theory of international trade was put forward by David Ricardo in his 1817 book 'Principles of Political Economy and Taxation'. According to the theory, trade can be beneficial to both the trading countries even when one nation has the absolute advantage in the production of both the commodities and the other nation has no absolute advantage in ~~any~~ of the commodity production of any of the commodities. In such a situation, the first country should specialize in the production and export of the commodity of its greater absolute advantage (i.e. the commodity of its comparative advantage) and the latter should specialize in the production and

Export of the commodity of its smaller absolute disadvantage (i.e. the commodity of its comparative advantage). This theory is based on the following assumptions —

- ① There are two countries producing two commodities by using one factor i.e. labour. So it is known as $(2 \times 2 \times 1)$ model.
- ② Perfect competition exists both in the product and factor markets.
- ③ There is free trade.
- ④ There are static conditions in the economy i.e. factor supplies, technique of production, tastes and preferences are given and constant.
- ⑤ Production is governed by constant returns to scale.
- ⑥ Labour is the only factor of production and it is used to measure the value of the good.
- ⑦ There is full employment of resources in both the countries.
- ⑧ Trade between two countries takes place in terms of barter.
- ⑨ Transport costs are absent.
- ⑩ Labour is perfectly mobile within the country but perfectly immobile among different countries.

Ricardo's theory can be explained with the help of the following example —

Country	Labour cost per unit of commodity in man-hours	
	Wine	Cloth
Portugal	80	90
England	120	100

In the above table it is seen that Portugal requires less labour hours to produce per unit of wine and cloth as compared to England. So it has absolute cost advantage in both the commodities over England. But still trade can be beneficial for both the countries if they specialize in the production of the commodity of its comparative advantage.

In Portugal, domestic exchange ratio between wine and cloth is 80:90 i.e. 1 wine : 0.88 cloth
Alternatively 1 cloth : 1.125 wine.

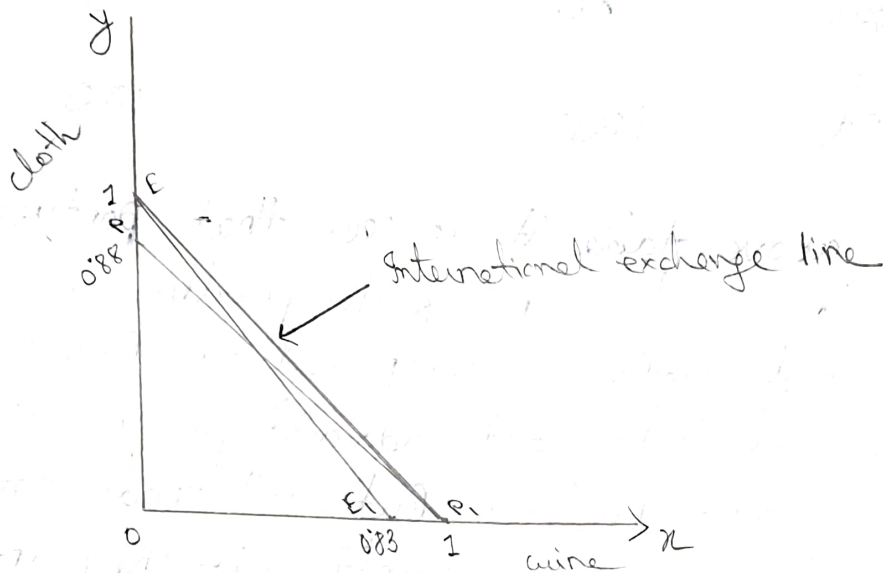
In England, domestic exchange ratio between wine and cloth is 120:100 i.e. 1 wine : 1.2 cloth.
Alternatively 1 cloth : 0.83 wine.

From the above cost ratios it follows that Portugal has comparative cost advantage in the production of wine and England has comparative cost advantage in the production of cloth (less absolute disadvantage).

Now if exchange rate is fixed at 1W:1C, then Portugal will gain $(1 - 0.88) = 0.12$ units of cloth or 10 ~~man-hours~~ ^(man-hours) while England will gain $1 - 0.83 = 0.17$

unit of wine or ^{save} 20 man-hours.

This gain from ~~the~~ trade can also be expressed with the help of the following figure —



PP_1 is the domestic exchange line of Portugal and EE_1 is the domestic exchange line of England. If trade takes place at 1 wine : 1 cloth, both countries will gain from trade.

Limitations: Although the theory has a sound and logical structure, yet some of its major defects can not be ignored —

- ① This theory is concerned with only two-commodity two-country situation. But in reality, there are many countries which are involved in trading of many commodities. Thus the theory is too simple to explain the complex multilateral trade situations.
- ② This theory is based on the labour theory of value. But in real life, value of a product does not only depend on labour costs, but also on non-labour costs. By considering labour as the only factor of

production and ignoring other factors' contribution this theory becomes invalid.

③ This theory ~~rests~~ is criticised because of its wrong assumptions of static conditions like given technology, fixed factor endowment, given taste and preference; perfect competition in product and factor markets etc.

④ The theory assumes the operation of law of constant cost or constant returns to scale. Hence, it can not be applied in case of increasing or decreasing costs.

⑤ The theory ignores the effect of transport cost. But once transport costs are added, any comparative advantage may be lost.

⑥ The theory assumes labour is perfectly mobile within the country, but perfectly immobile ~~among~~ ^{between} the countries. But this may not hold true. Sometimes mobility of labour is very limited even within the different regions of the same country and sometimes labour easily move among countries.

⑦ This theory is one sided as it lays too much emphasis on supply side and overlooks the impact of demand conditions on international trade.

⑧ This theory assumes free trade. It is an extension of the classical laissez-faire policy in the field of international trade. So the theory is not relevant in less developed countries.

(9) It may be difficult to easily transfer labour from one line of production to another. For example textile workers might not know how to produce wine and vice-versa.

(10) The theory assumes full employment of resources. But Keynes has convincingly rebutted the classical myth of full employment. Hence the Ricardian theory of comparative advantage does not rest on solid theoretical foundations.

Class II Heckscher-Ohlin Theory of International Trade

- Eli Heckscher, a Swedish economist, outlined the modern theory of international trade in 1919 in his article 'The Effect of Foreign Trade on the Distribution of Income'.
- It was remained almost unnoticed for over ten years.
- Bertil Ohlin, another Swedish economist and student of Heckscher, took it up, rectified it and published in his book 'Interregional and International Trade' in 1933.
- Popularly known as the Heckscher-Ohlin or the modern theory of international trade.
- For his contribution, Ohlin shared the Nobel Prize in Economics in 1977 with James Meade.
- Combination of two theorems: H-O Theorem and Factor Price Equalisation Theorem.

H-O Theorem: A nation will export the commodity whose production requires the intensive use of the nation's relatively abundant and cheap factor and import the commodity whose production requires the intensive

of L increases and therefore, w rises in production of both commodities.

This is reflected in the fact that the absolute slope of the short solid line through F (measuring w/r) is greater than the absolute slope of the short solid line through B .

Specific Factors Model

Effect of Trade on short-run Distribution of Income

Effect of international trade on distribution of income based on the assumption that factors are perfectly mobile among the nation's industries and sectors.

In the short-run, some factors say capital, may be immobile or specific to some industry or sector.

In this case, the conclusions of the H-O model on the effects of IT on distribution need to be modified as explained by the specific factors model.

Suppose, Nation 1 is relatively labor abundant, produces commodities x and y (x - L intensive, y - K intensive)

Labor is mobile between production of x and y but capital is specific to each industry, i.e. K used in

The production of x can not be used in production of y and vice-versa.

This is like having 3 factors - labour (mobile between x and y production), natural resources (arable land) used only in production of x and capital used only in the production of y .

Since L is mobile, wage of L will be the same in production of x and y in nation 1.

The equilibrium wage and amount of labour employed in production of x and y in nation 1 are given by intersections of the value of marginal product of L curves in the production of x and y .

$$VMPL_x = (P_x) \cdot (MPL_x) \quad \& \quad VMPL_y = (P_y) \cdot (MPL_y)$$

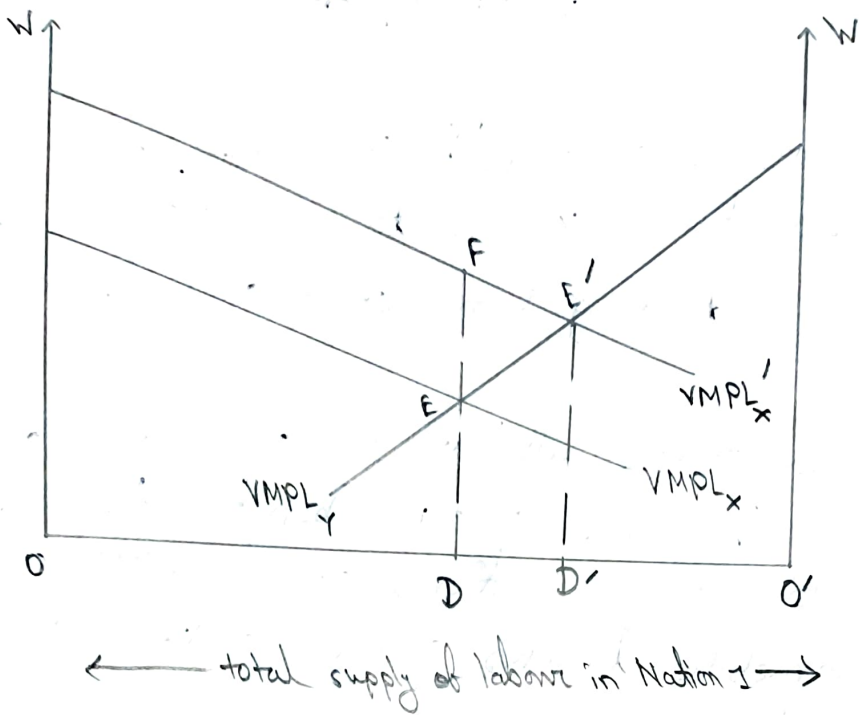
If firms employ more L with a given amount of K , $VMPL$ declines because of law of diminishing returns. To maximize profits, firms employ L until the wage equals $VMPL$ ($w = VMPL$).

Before Trade

In figure, equilibrium wage rate is EO .

Wage rate is identical in the production of x and y because of perfect L mobility.

OD labour is used in production of x and remaining OD' is used in production of y .



With trade

Nation 1 produces more x (L intensive commodity). It increases P_x/P_y .

Since $VMPL_x = (P_x) \cdot (MPL_x)$, increase in P_x shifts the $VMPL_x$ upward proportionately by EF to $VMPL'_x$.

Wage rate increases less than ~~increase in P_x~~ proportionately from ED to $E'D'$ and DD' labor shift from production of y to x .

Since w increases less than increase in P_x , w falls in terms of x but rises in terms of y (since P_y is unchanged).

Thus the effect of increase in P_x on real income of L is ambiguous.

Workers who consume mainly x will be worse-off, while those who consume mainly y will be better-off.

Since the specific capital in production of x has more L to work with, $VMPK_x$ and r increase in terms of x production.

Contrarily, less L is used with fixed k in production

of Y leading to fall in VM_{PK_Y} and v in production of Y .

Thus real income of immobile K (nation's scarce factor) rises in production of X and falls in production of Y .

Real wages fall in terms of X and rise in terms of Y .

In general, trade will have an ambiguous effect on each nation's mobile factors, benefit the immobile factors specific to the nation's export sector and harm the immobile factors specific to the nation's import competing sectors.