

Theory of Comparative Advantage of International Trade: by David Ricardo!

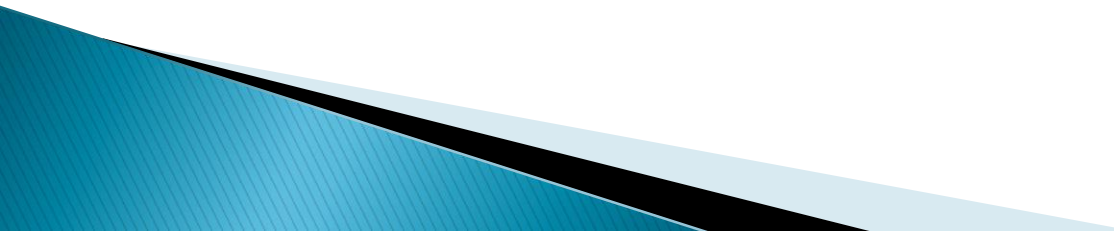
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The classical theory of International Trade is popularly known as the Theory of Comparative Costs or Advantage. It was formulated by David Ricardo in 1815.

The classical approach, in terms of comparative cost advantage, as presented by Ricardo, basically seeks to explain how and why countries gain by trading.

The idea of Comparative Costs Advantage is drawn in view of deficiencies observed by Ricardo in Adam Smith's principles of absolute cost advantage in explaining territorial specialisation as a basis for international trade.

Being dissatisfied with the application of classical labour theory of value in the case of foreign trade, Ricardo developed a theory of comparative cost advantage to explain the basis of international trade as under:



Ricardo's Theorem:

Ricardo stated a theorem that, other things being equal, a country tends to specialise in and export those commodities in the production of which it has maximum comparative cost advantage or minimum comparative disadvantage. Similarly, the country's imports will be of goods having relatively less comparative cost advantage or greater disadvantage.

The Ricardian Model:

To explain his theory of Comparative Cost Advantage, Ricardo constructed a two-country, two-commodity, but one-factor model with the following assumptions:

1. Labour is the only productive factor.
2. Costs of production are measured in terms of the labour units involved.
3. Labour is perfectly mobile within a country but immobile internationally.
4. Labour is homogeneous.
5. There is unrestricted or free trade.
6. There are constant returns to scale.

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7. There is full employment equilibrium.
8. There is perfect competition.

Under these assumptions, let us assume that there are two countries A and B and two goods X and Y to be produced. Now, to illustrate and elucidate comparative cost difference, let us take some hypothetical data and examine them as follows.

Absolute Cost Difference:

As Adam Smith pointed out, if there is an absolute cost difference, a country will specialise in the production of a commodity having an absolute advantage (see Table 1).

Table 1 Cost of Production in Labour Units:

It follows that country A has an absolute advantage over B in the production of X while B has an absolute advantage in producing Y. As such, when trade takes place, A specialises in X and exports its surplus to B and B specialises in Y and exports its surplus to A.

Equal Cost Difference:

Ricardo argues that if there is equal cost difference, it is not advantageous for trade and specialisation for any country in consideration (see Table 2).

Table 2 Cost of Production in Labour Units:

On account of equal cost difference, the comparative cost ratio is the same for both the countries, so there is no reason for undertaking specialisation. Hence, the trade between two countries will not take place.

	Country A	Country B	Comparative Cost Ratio
Commodity X	10	15	$10 / 15 = 0.66$
Commodity Y	20	30	$20 / 30 = 0.66$
Domestic Exchange Ratio:	$1 X = 1/2 Y$	$1 X = 1/2 Y$	

Comparative Cost Difference:

Ricardo emphasised that under all conditions, it, is the comparative cost advantage which lies at the root of specialisation and trade (see Table 3).

Table 3 Cost of Production in Labour Units:

	Country A	Country B	Comparative Cost Ratio
Commodity X	10	15	$10/15 = 0.66$
Commodity Y	20	25	$20/25 = 0.80$
Domestic Exchange Ratio	$IX = 0.5Y$	$IX = 0.6Y$	

It will be seen that country A has an absolute cost advantage in both the commodities X and Y. However, A possesses a comparative cost advantage in producing X. For, comparatively, country A's labour cost involved in producing 1 unit of X is only 66 per cent of B's labour cost involved in producing X, as against that of 80 per cent in the case of Y.

On the other hand, country B has least comparative disadvantage in production of Y, though she has absolute cost disadvantage in both X and Y. It should be noted that, to know the comparative advantage, we have to compare the ratio of the costs of production of one commodity in both countries (i.e., 10/15 in the case of X in our example) with the ratio of the cost of producing the other commodity in both countries (i.e., 20/25 in the case of Y in our example). To state in algebraic terms:

If in country A, the labour cost of commodity X is X_a and that of Y is Y_a , and in B, it is X_b and Y_b respectively, then absolute differences in cost can be expressed as:

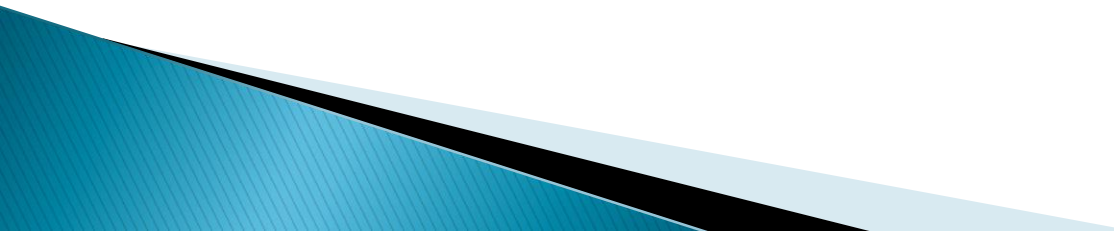
$$X_a/X_b < 1 < Y_a/Y_b$$

(Which means that country A has an absolute advantage over country B in commodity X and country B has over A in commodity Y). And, comparative differences in costs are expressed as:

$$X_a/X_b < Y_a/Y_b < 1$$

(Which implies that country A possesses an absolute advantage over B in both X and Y, but it has more comparative advantage in X than in Y). If, however, there is an equal cost difference, i.e., $X_a/X_b = Y_a/Y_b$ will be no international trade between the two countries.

In our illustration, since country A has comparative cost advantage in commodity X, as per Ricardo's theorem, this country should tend to specialise in X and export its surplus to country B in exchange for Y (i.e., import of Y from B). Correspondingly, since country B has least cost disadvantage in producing Y, she should specialise in Y and export its surplus to A and import X.



Gain Attributes of International Trade:

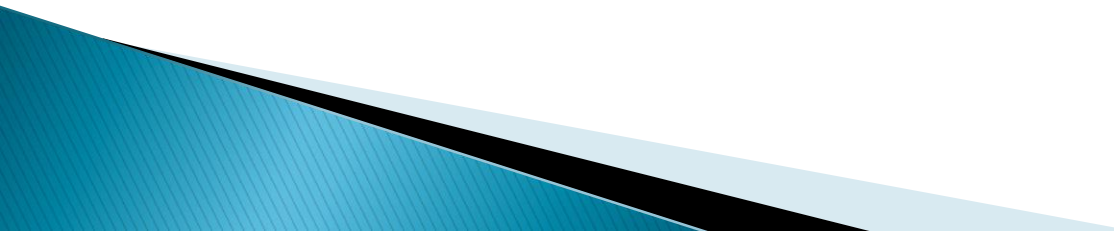
It further follows that when countries A and B enter into trade, both will gain. In the absence of trade, domestically in country A, $IX = 0.5Y$. Now, if after trade, assuming the terms of trade to be $IX = 1Y$, country A gains 0.5 unit more. Similarly, in country B, $IX = 0.6Y$ domestically, after trade, its gain is $0.4Y$.

In short, “each country can consume more by trading than in isolation with a given amount of resources. Indeed, the relative gains of the two countries will be conditioned by the terms of trade and one is likely to gain proportionately more than the other but it is definite that both will gain. In fact, the principle of comparative costs shows that it is possible for both the countries to gain from trade, even if one of them is more efficient than the other in all lines of production.

The theory implies that comparative costs are different in different countries because the abundance of factors which may be necessary for the production of each commodity does not bear the same relation to the demand for each commodity in different countries. Thus, specialisation based on comparative cost advantage clearly represents a gain to the trading countries in so far as it enables more of each variety of goods to be produced cheaply by utilising the abundant factors fully in the country concerned and to obtain relatively cheaper goods through mutual international exchange. Ricardo's theory pleads the case for free trade. He stresses that free-trade is the pre-requisite of gains and improvement of world's welfare. Free trade "by increasing the general mass of production diffuses general benefit and binds together by one common tie of interest and intercourse, the universal society of nations throughout the civilised world."

To sum up, what goods will be exchanged in international trade is the main question solved by Ricardo's theory of comparative costs. The theory is lucidly summarised by Kindle-Berger as follows:

“The basis for trade, so far as supply is concerned, is found in differences in comparative costs. One country may be more efficient than another, as measured by factor inputs per unit of output, in the production of every possible commodity, but so long as it is not equally more efficient in every commodity, a basis for trade exists. It will pay the country to produce more of those goods in which it is relatively more efficient and to export these in return for goods in which its absolute advantage is least.”





THANK YOU