Theory of Reciprocal Demand and Terms of Trade

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Learning Objectives –

- To understand the propounding of reciprocal theory of international trade,
- to get familiarisation of the concepts terms of trade and reciprocal demand,
- to acquire skill to illustrate the reciprocal demand using numerical values in a tabular form,
- to find equilibrium terms of trade of partner countries

Key Takeaways –

- J.S Mill propounded the theory,
- Demand of country for a commodity produced in her partner country is reciprocal demand, ratio of exports to imports is terms of trade
- comparative difference in cost-ratios sets the limits within which participating countries can import and export goods,
- the demand for each other’s goods or the reciprocal demand determines terms of trade of partner countries
- reciprocal demand determines the terms of trade between the participating countries

Author – John Stuart Mill (1806 – 1873), English philosopher, political economist, politician and civil servant. One of the most influential thinkers in the history of classical liberalism, contributed widely to social theory, political theory, and political economy. Dubbed "the most influential English-speaking philosopher of the nineteenth century

Books - On Liberty (1859), Principles of Political Economy (1848), Three Essays on Religion: Nature, the Utility of religion, and Theism (1874), Socialism, (1879)

Assumptions

Trade between two countries, A and B

Trade is in two commodities X and Y

Production is governed by constant returns to scale in both the countries

Trade is governed by comparative cost advantage principle

Pattern of demand is similar in the two countries

Markets in the countries are perfectly competitive

Free trade

Full employment

Absence of transport cost

Trade balance

Theory - J.S.Mill’s theory of reciprocal demand explains how trade takes place. A comparative difference in cost-ratios sets the limits within which participating countries can import and export goods and commodities. How the terms of trade are determined between two countries? One may like to know how much, say, one country will export and how much it will import. The Ricardian theory does not answer this.

Determination of terms of trade was discussed by J.S. Mill. Because unless we determine terms of trade, we cannot explain how many units of goods and commodities will be imported/exported. J.S. Mill discussed this aspect of trade on the foundations laid down by David Ricardo. Given the difference in cost, the demand in both the countries will determine terms of trade i.e., how much of a commodity one country is willing to purchase in exchange for a certain amount of other country’s commodity. It is, therefore, **the demand for each other’s goods or the reciprocal demand**, which will determine the terms of trade between the participating countries. J.S. Mill, on the basis of the cost ratios (that is, accepting the differences in comparative cost as the cause for trade as suggested by Ricado) explained the determination of terms of trade.

Let us take two countries, A and B, producing two commodities X and Y in one human day of work.

Country	Commodity		
		X	Y
A		120	100
B		100	80

With the given number of factors, a country can produce, 120 units of X or 100 units of Y. Similarly, country B can produce 90 units of X or 80 units of Y. It may be pointed out that although country B in isolation is better equipped in the production of X as compared to Y but as compared to country A, it is inferior in the production of both commodities. According to the comparative cost theory, country A will specialize in the production of X and country B in the production of Y commodity.

Let us consider the cost ratios of both the countries as given above. In country A the ratio of X and Y is 12/10. It means 12 units of X will exchange 10 units of Y, or vice versa. In country B it is 10:8, that is, 10 units of X can be exchanged for 8 units of Y, or vice-versa. As indicated above, country A will be happy to get 10 units of Y by exporting anything less than 12 units of X. Similarly, country B will be happy to get more than 10 units of X by exporting 8 units of Y. In between these extremes the terms of trade will be determined as there is gain to both the countries.

A is willing to give 120 units of X for 100 units of Y. B is willing to accept 100 units of X for 80 units of Y or 125 units of X for 100 units of Y. Thus, if they agree to a rate between 125 to 120 units of X for 100 units of Y, both will be better off. If the rate of exchange so determined is equal to A country’s internal ratio, it will not be willing to trade. So, there will be no trade. If the rate is closer to rate of transformation in country A, most of benefits from trade accrues to B.

Conclusion - The concept of reciprocal demand is also criticized by a number of economists. Reciprocal demand considers only the demand of both the countries. But demand alone cannot help us in determining the terms of trade. The supply side, that is, the cost aspect is also important. In fact, there are two sets of demand and two sets of supply. Marshall’s analysis overcomes this limitation. Marshall uses the concept of offer curves for analyzing the reciprocal demand. The offer curves of a country tell us, how much of a commodity one country is willing to exchange for another commodity. The point at which offer curves of respective countries cut each other will be the equilibrium point and terms of trade will be determined at that point.