THEORY OF RECIPROCAL DEMAND

BY

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J S Mill's Reciprocal Demand Theory>>

- >> Makes the comparative cost theory determinate by stating the equilibrium Terms of Trade , between these limits.
- >> This theory is also known as the **Theory of International Values**
- >>According to him, the equilbrium TOT is determined by the equation of Reciprocal Demand.

Reciprocal Demand means >>

- the relative strength and Elasticity of Demand of the two trading countries for each other's product in terms of their own product.
- A Stable ratio of exchange will be determined at the level where the values of imports and exports of each country is in equilibrium.

- The ratio will be stable when the value of each country's exports is just enough to pay for its imports.

Assumptions of Mill's Theory :

- 2 x 2 Model (Two countries and Two commodities)
- Full Employment conditions
- Perfect Competition
- Free Foreign Trade
- Free Factors Mobility

Between the limits , where the actual TOT(or ratio of exchange) will be>>

- Determined by the relative elasticity of demand on the part of India for England's cloth and vice versa.

- If England's demand for India's wheat is **more intense(or less elastic)** the ratio of exchange will be determined near the England's domestic rate (here at 1W:9C) . Thus, the TOT will be favourable to India and unfavourable to England , and **India will get a higher gains in trade.**

- Reverse will be the case, if India's demand for England's cloth is more intense (or less elastic).

Reciprocal Demand Elasticity

- Reciprocal Demand Elasticity refers to the ratio of proportional change in the quantity of imports demanded to the proportional change in the price of exports relative to the price of imports.

Note: value of elasticity

- >> If the e >1 , then the TOT will be favourable for the concerned country and it will have a larger share of gains in trade.
- If the e <1 , then the TOT will be unfavourable for the concerned country and it will have a smaller share of the gains in trade.

- If the e =1 , then the gains from trade will be equally distributed between the countries.

Equilibrium Terms of Trade: Offer Curve Approach

- Offer Curves is a Geometrical technique developed by Marshall
- It shows the determination of the equilibrium exchange rate

- Offer curve is a TYPICAL DEMAND CURVE as it shows the demand for one commodity (imports) in terms of the supply of another commodity (exports)

Note:

- OI: India’s Offer curve represents the quantities of wheat which India is willing to offer in exchange for England’s cloth.

- OE: is England’s offer curve of cloth for wheat, representing its demand for India’s Wheat.

Let take an example : 2 countries(A and B) & 2 commodities (X and Y)

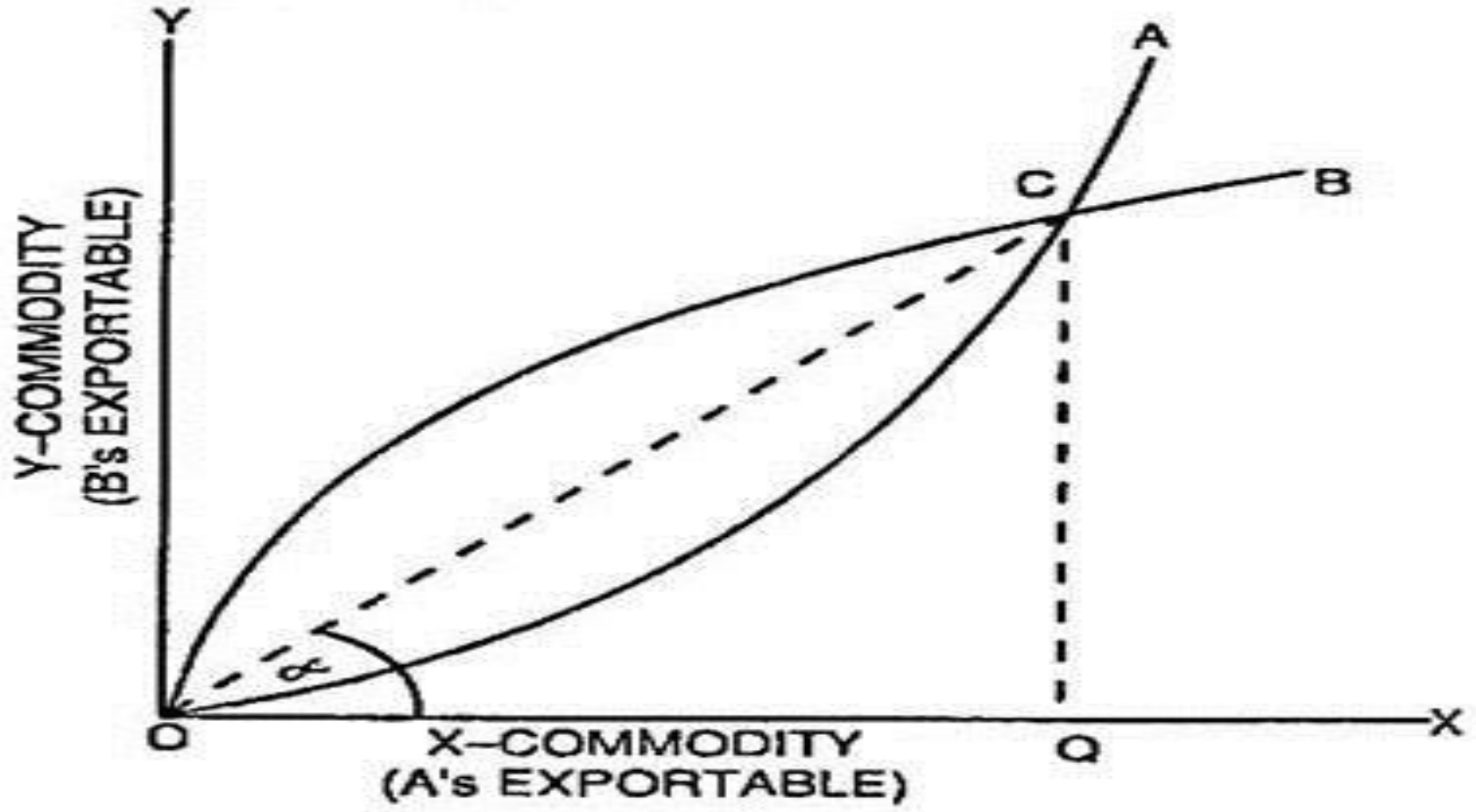

Fig. 5.2

Equilibrium Rate of Exchange:

- The equilibrium exchange takes place at C where the two offer curves cut each other. The country A exports OQ quantity of X in exchange of CQ quantity of Y-commodity.
- The terms of trade (TOT) are measured by the ratio of quantity imported (or demanded) to the quantity exported (or supplied), which in the equilibrium position C is CQ/OQ.

- **TOT at C = QM/QX = CQ/OQ = Slope of line OC = Tan ∝**

Shift in Offer Curves

- If country A's demand for product Y increases, she would be willing to offer more quantities of X for the same quantities of Y. In such a situation, the offer curve of country A will shift to the right. On the opposite, if A's demand for product Y decreases, she would offer less quantities of X in exchange for the same quantities of Y. In this case, the offer curve of country A will shift to the left of its original position.
- Similarly, if country B's demand for X increases, she would be willing to offer more quantities of Y in order to have the same quantities of X. That will cause a shift in the offer curve of country B to the left of its original position. On the opposite, a decrease in the demand for X by it will lead to a shift in its offer curve to the right. The impact of these shifts upon the actual equilibrium exchange ratio or terms of trade can be shown through Figs. 5.3 and 5.4.

A's Demand for Y increases(A1) and if Decreases(A2)

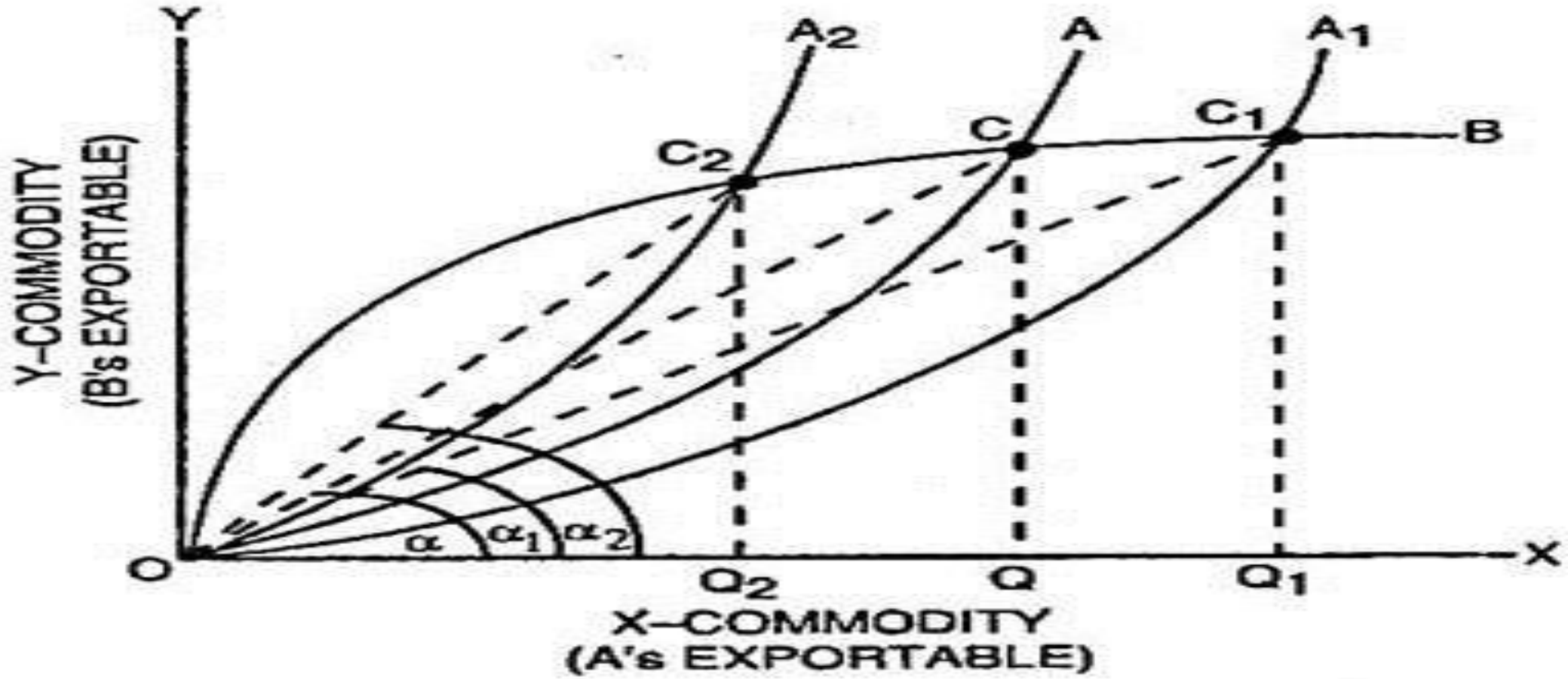

Fig. 5.3

B's Demand for X increases(B1) and if decreases(B2)

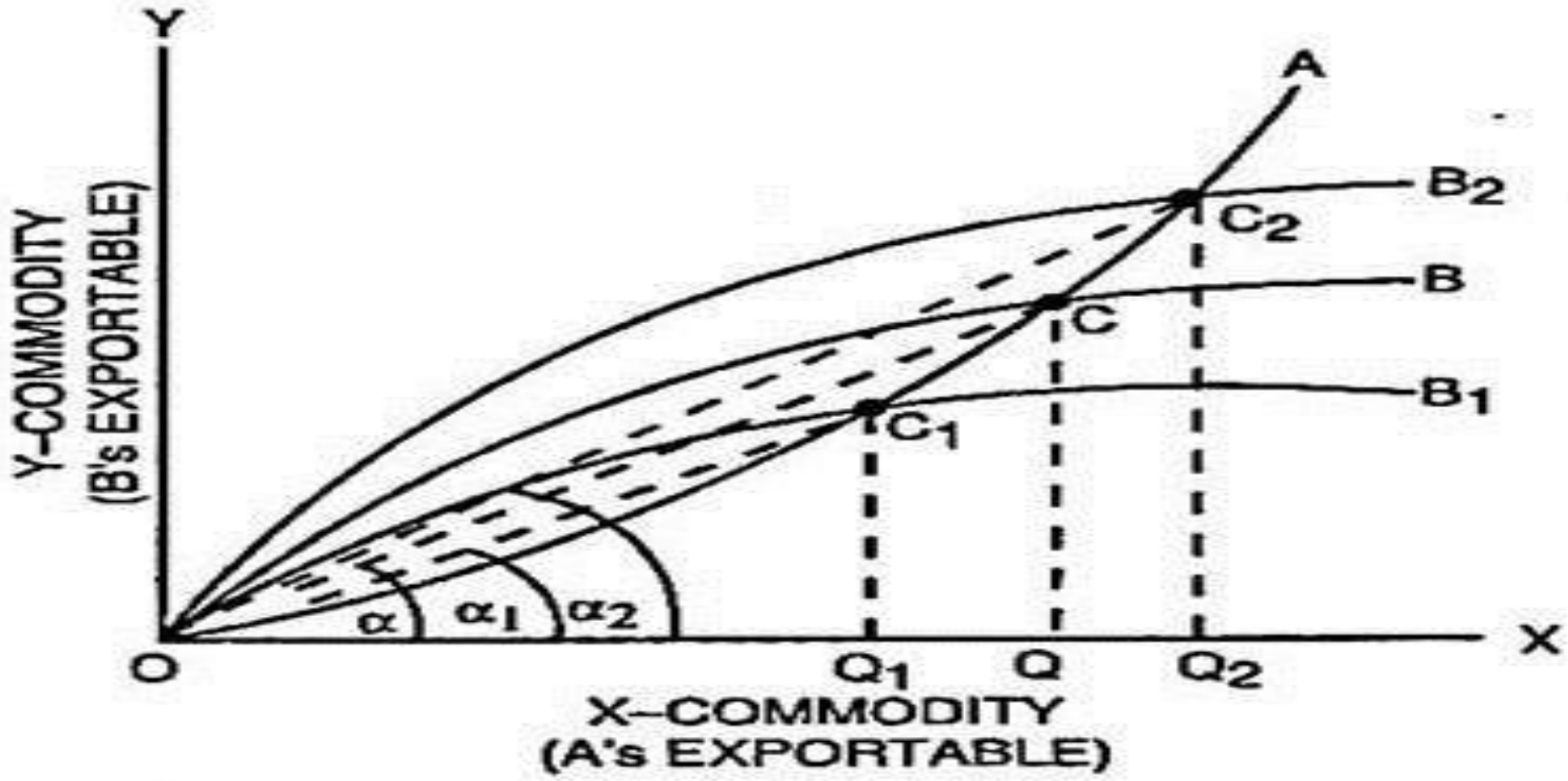

Fig. 5.4

Favourable and Unfavourable TOT

- In Fig. 5.3, OA and OB are the original offer curves of the two countries A and B respectively. C is the point of equilibrium exchange and TOT at C = QM/QX = CQ/OQ = Slope of line OC = Tan $\propto$. If A's demand for product Y increases, the offer curve of country A shifts to the right to OA1. The intersection between OA1 and OB takes place at C1, where C1Q1 quantity of Y is imported in exchange of OQ1 quantity of X.
- The TOT at C1 = **QM/QX** = C1Q1/OQ1 = Slope of line OC1 = Tan $\propto 1$.
- Since Tan $\propto 1$ < Tan $\propto$, the TOT have become unfavourable for country A or favourable for country B. If A's demand for product Y decreases, the offer curve of A shifts to the left from OA to OA2 and exchange equilibrium takes place at C2 through the intersection of curves OA2 and OB. Here it will be favourable to A.

Criticisms to Mill's Theory of Reciprocal Demand:

- Mill's theory of reciprocal demand has been criticised on the following grounds:
- (i) The theory is based on unrealistic assumptions, such as perfect competition and full employment.
- (ii) Actual trade is not restricted to two country, two commodity model.
- (iii) Mill concentrates on the elasticity of demand, thus neglecting the impact of elasticity of supply. According to the modem economists, terms of trade are generally influenced by- (a) elasticity of demand for both exports and imports as well as the elasticity of supply of both exports and imports.

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