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Budget Line

Dr. Anjali Dash



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Budget Constraint

➤ The consumer faces two constraints-

1-Income is limited

2-He has to pay prices for the commodities

➤ Given the budget constraint, the consumer would be in equilibrium where the budget line is tangent to the highest possible IC



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Budget Line equation

$$I = p_x q_x + p_y q_y$$

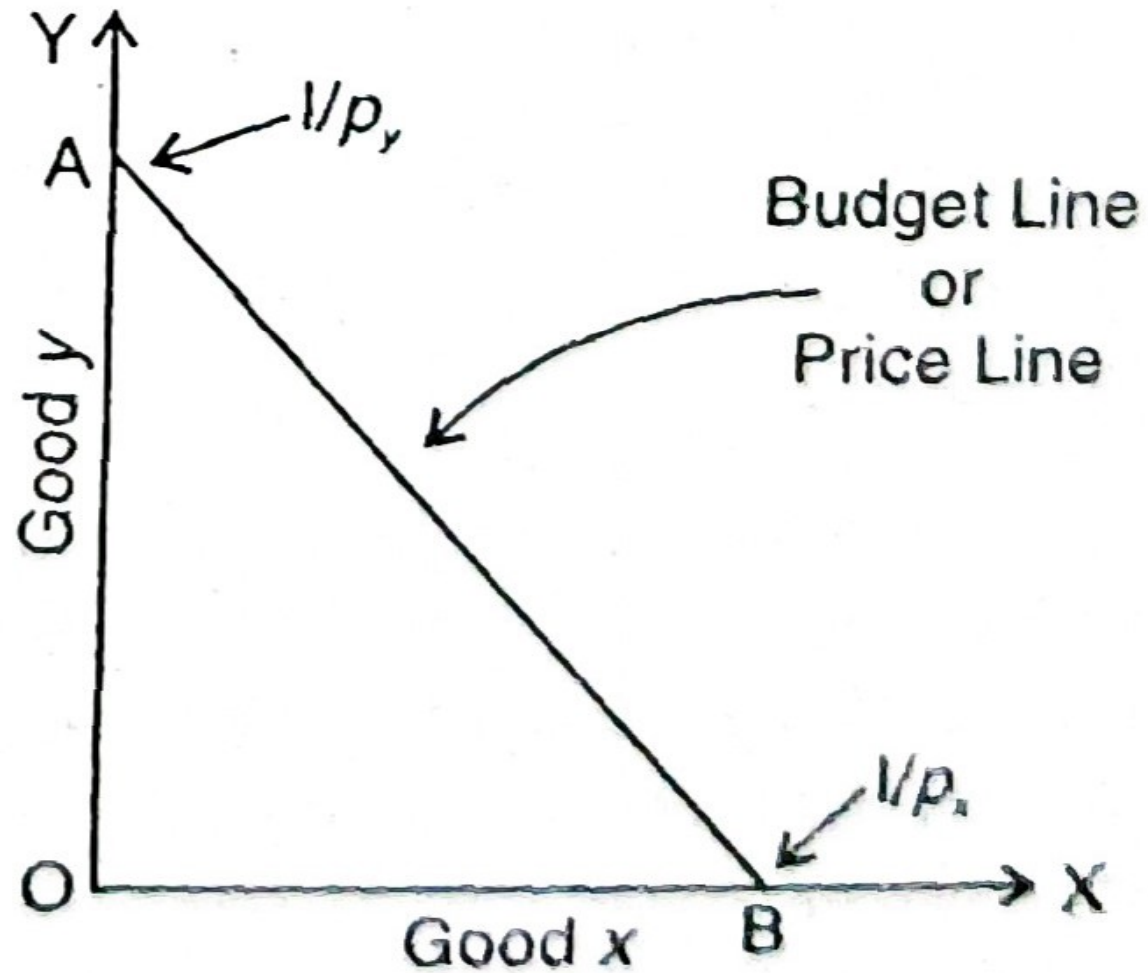
$$q_y = \frac{I}{p_y} - \frac{p_x}{p_y} q_x$$



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Slope of the Budget Line

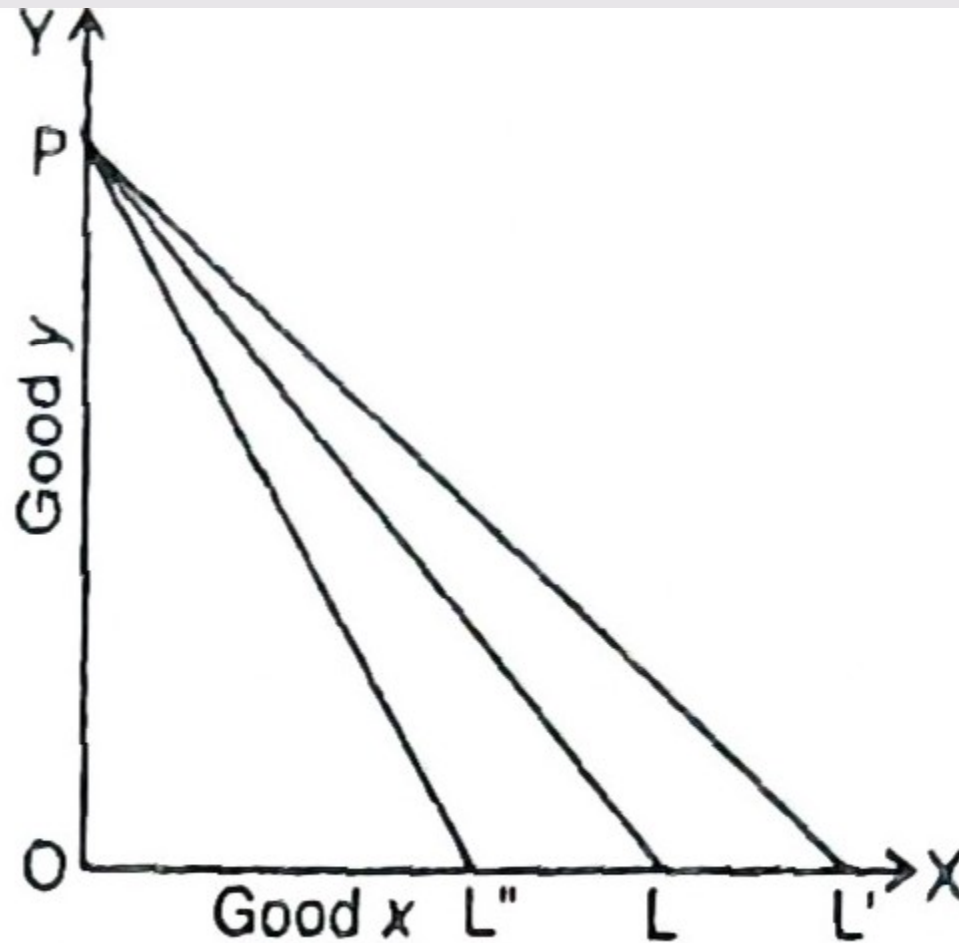
- The slope of the budget line is equal to the ratio of the prices of two goods.
- AB price line is OA/OB
- **What will happened if either price of the good will change or the income changes?**



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Change budget line due to change in price of good X





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Change budget line due to change in price of good Y

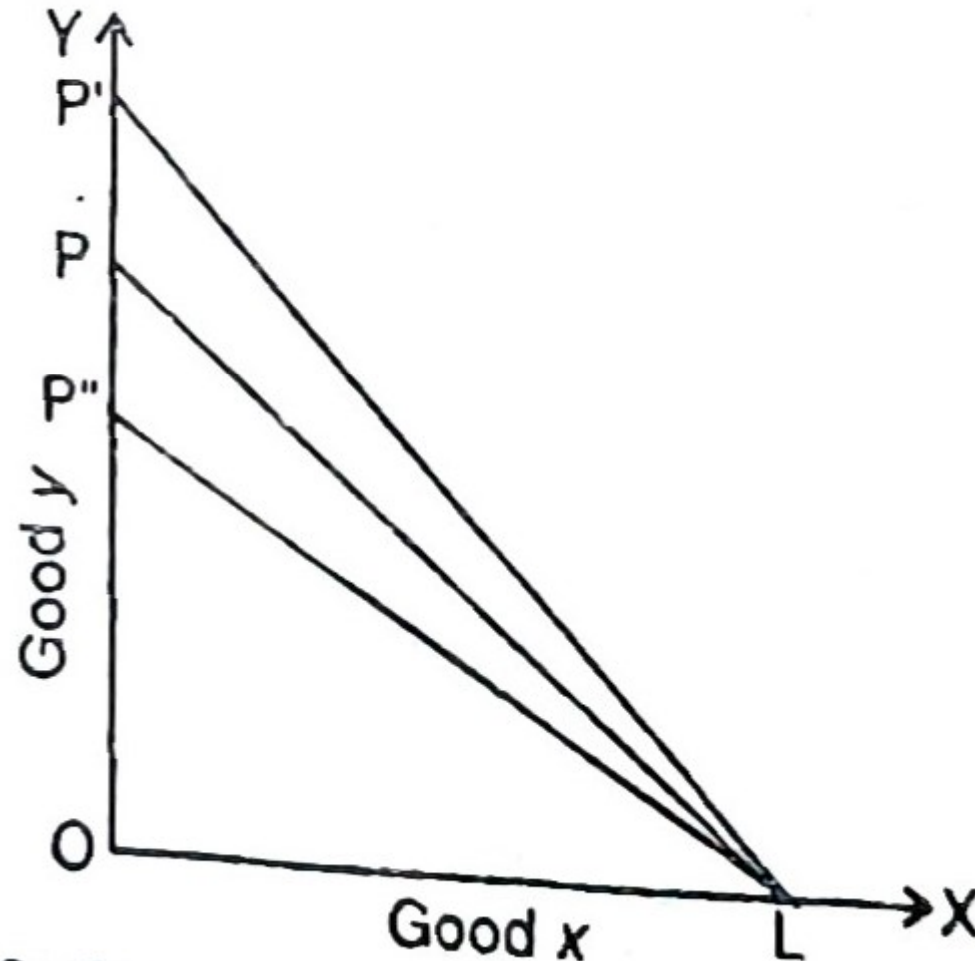


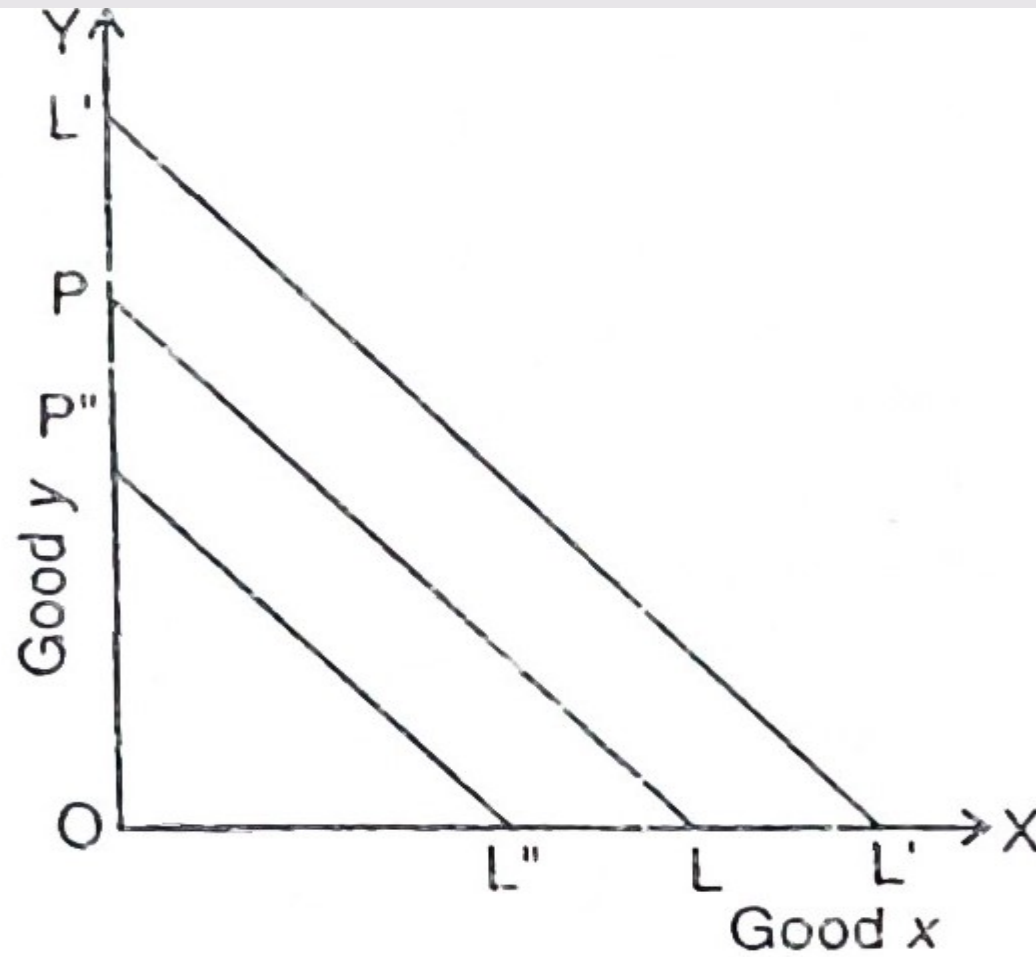
Fig. 20.01



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Change budget line due to changes in Income





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Consumer equilibrium

The indifference curve analysis of consumer's equilibrium is based on the following assumptions :

1. The consumer has a given indifference map exhibiting his scale of preferences for various combinations of two goods, X and Y.

2. He has a fixed amount of money to spend on the two goods. He has to spend whole of his given money on the two goods.

3. Prices of the goods are given and constant for him. He cannot influence the prices of the goods by buying more or less of them.

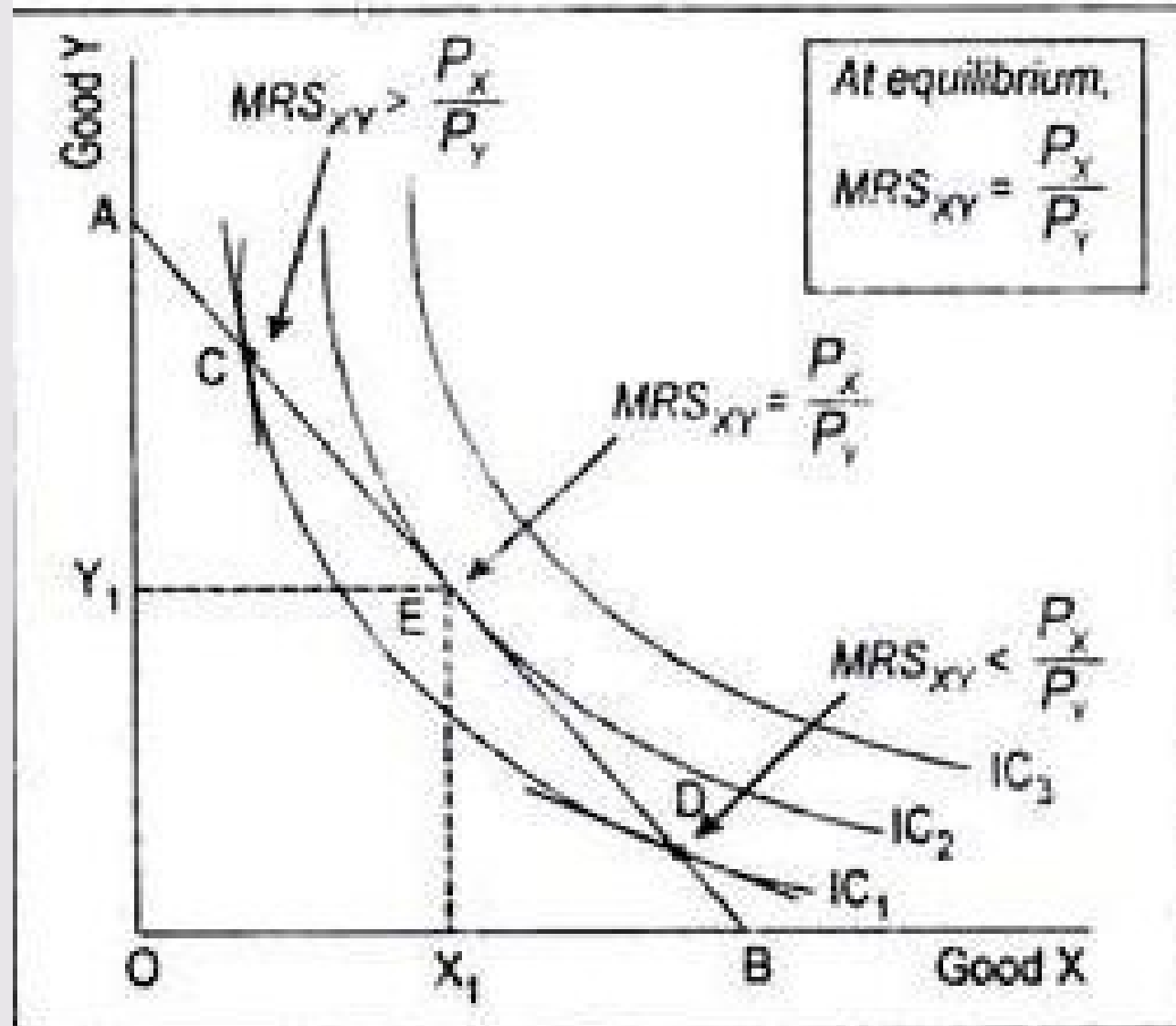
4. Goods are homogeneous and divisible.



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Consumer equilibrium

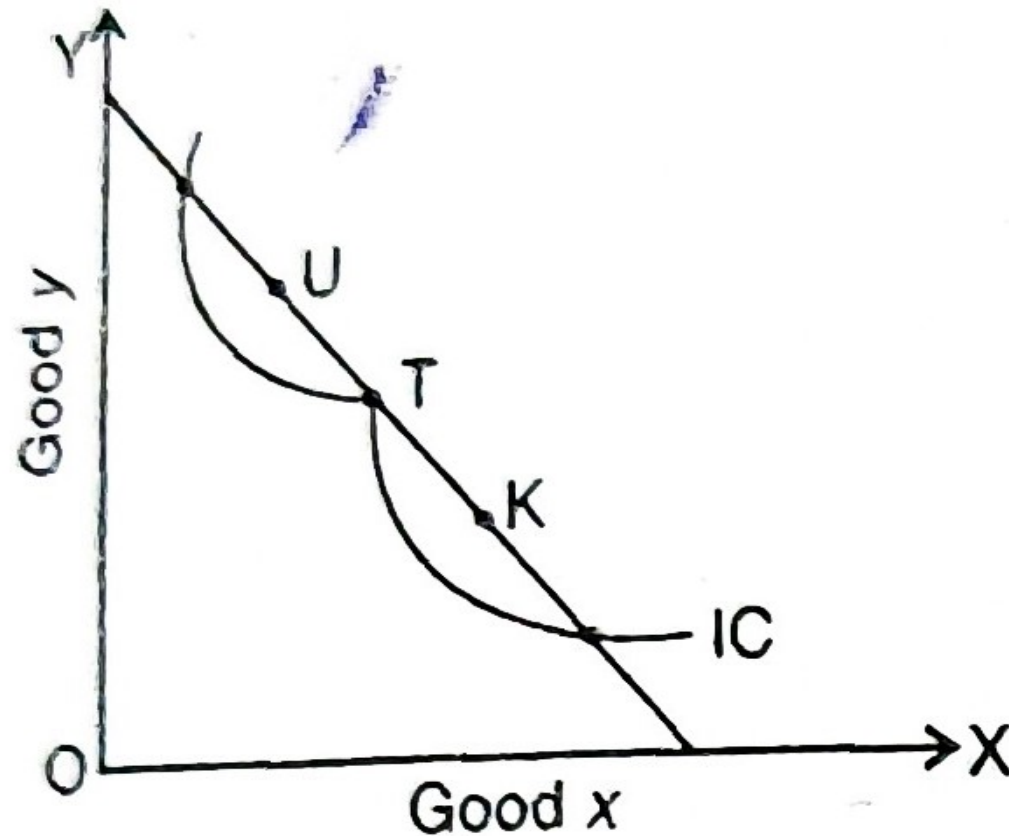




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Consumer equilibrium



$$MRS_{xy} = \frac{P_x}{P_y} = \frac{MU_x}{MU_y}$$

IC must be convex at tangent point



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Happy Learning

