Micro Economics

Indifference Curve

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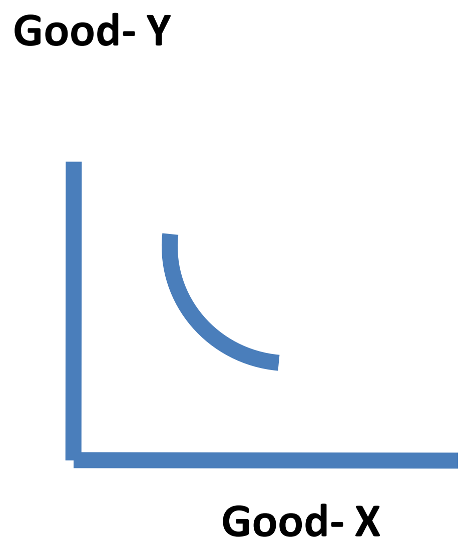
Characteristics of ICs

1. Meaning of IC
2. Concept of marginal rate of substitution
3. Law of diminishing marginal rate of substitution
4. Assumptions of the concept
5. Characteristics of indifference curves

Meaning of IC

- The curve showing various <u>combinations</u> <u>of</u> <u>two</u> <u>goods</u> which provide the consumer with the <u>same</u> <u>level of satisfaction.</u>

Combinations	Good-X	Good-Y	Level of Satisfaction	MRSxy
A	1	20	100 units	-
B	2	10	100 units	10
C	3	6	100 units	4
D	4	3	100 units	3



Assumptions

- $1x + 20y < 1x + 25y$

- A=B
- A=C
- THEREFORE B=C

- MRS $\downarrow$

Properties of IC

- 1. The IC is always downward sloping from left to right. (Negative slope)
- 2. The IC is always convex to the Origin.
- 3. Two ICs cannot intersect or touch each other.
- 4. Higher the IC, higher the level of satisfaction.

Negative slope

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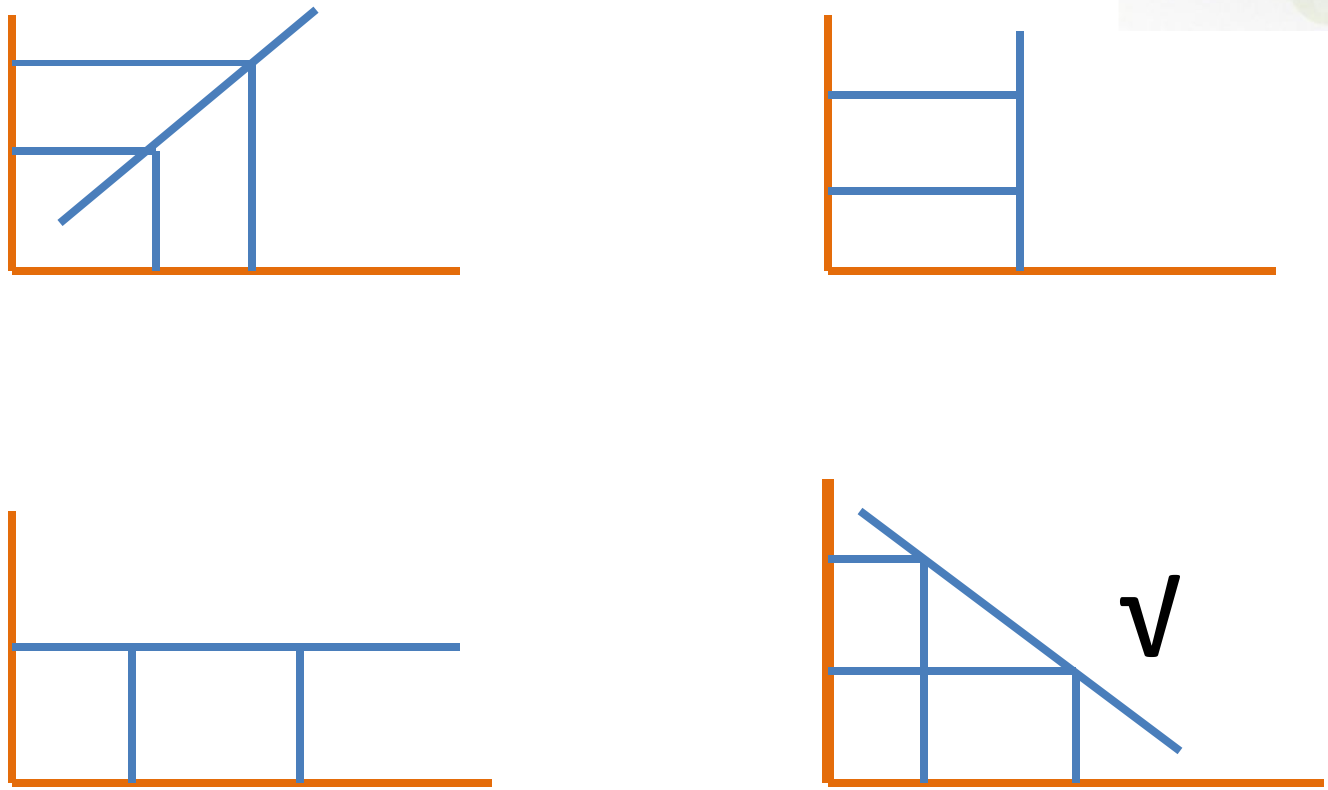

Convex

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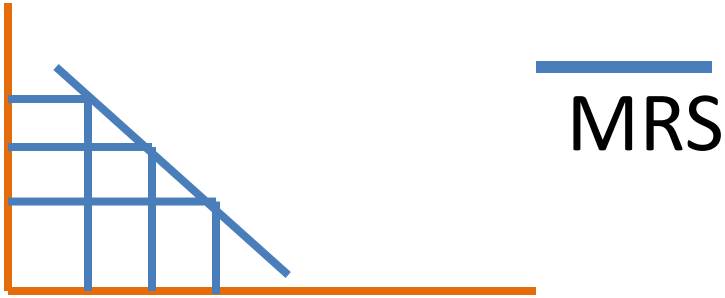
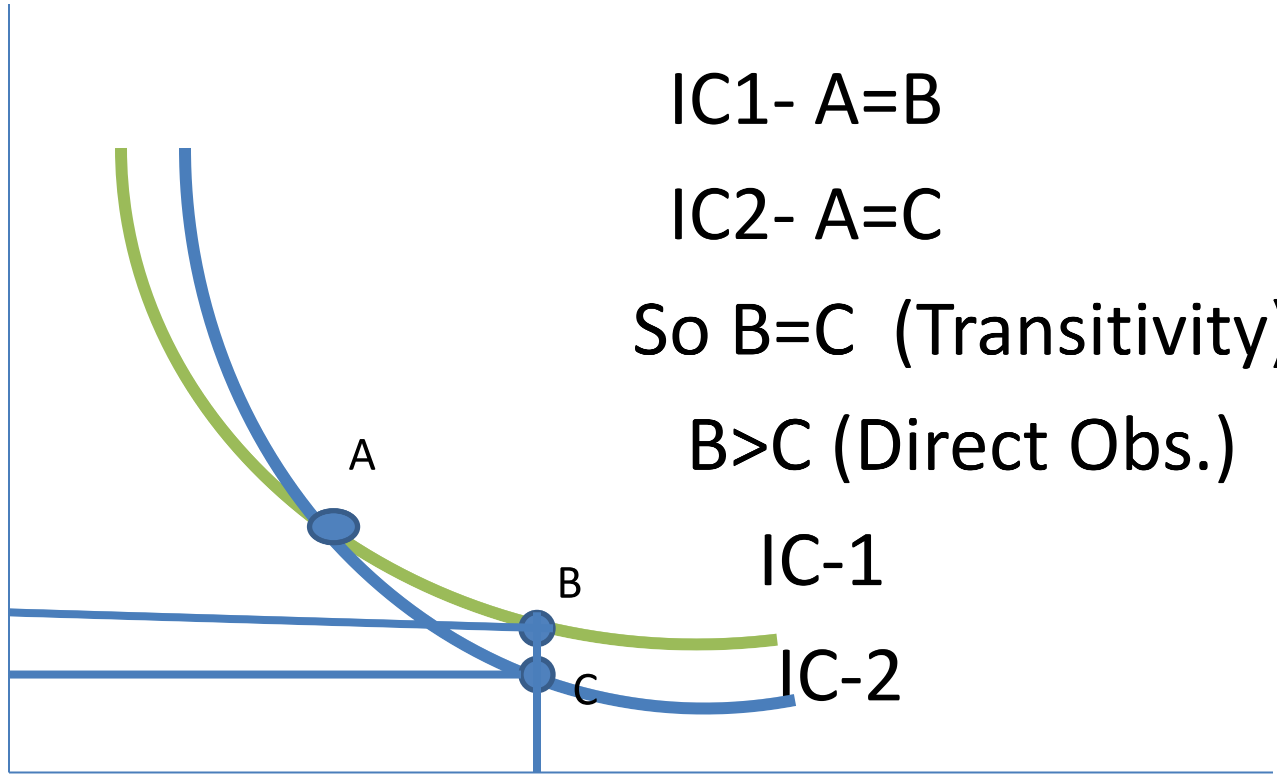
- 

Can’t intersect or touch



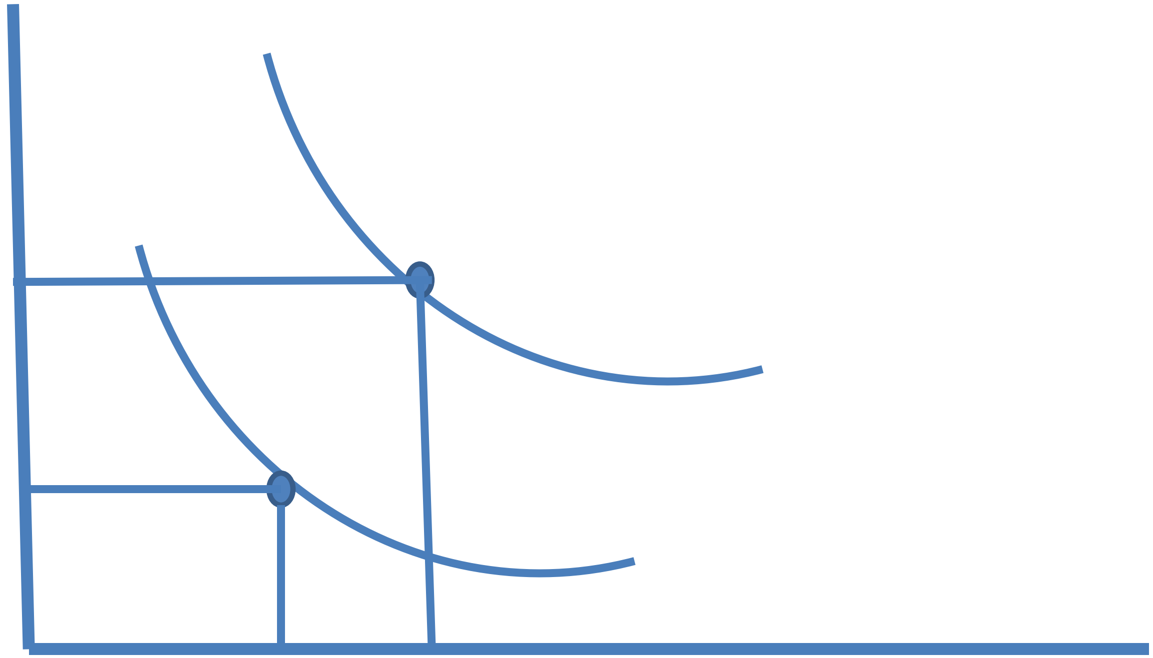
IC1- A=B

IC2- A=C

So B=C (Transitivity)

B>C (Direct Obs.)

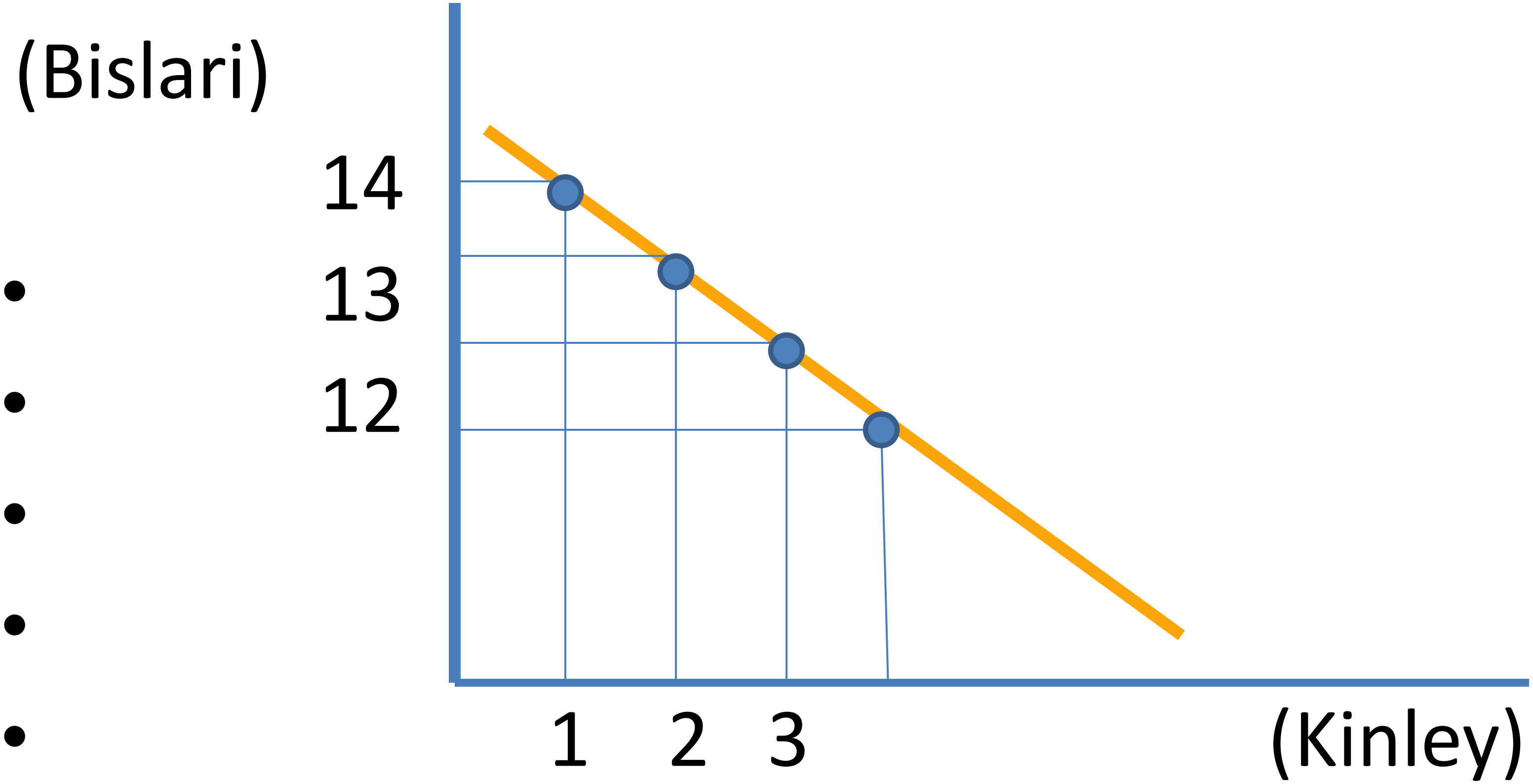
Higher IC, Higher Satisfaction



Some exceptional ICs

1. IC for perfect substitutes
2. IC for perfect complements
3. When one good gives utility and the other gives disutility

Perfect Substitutes



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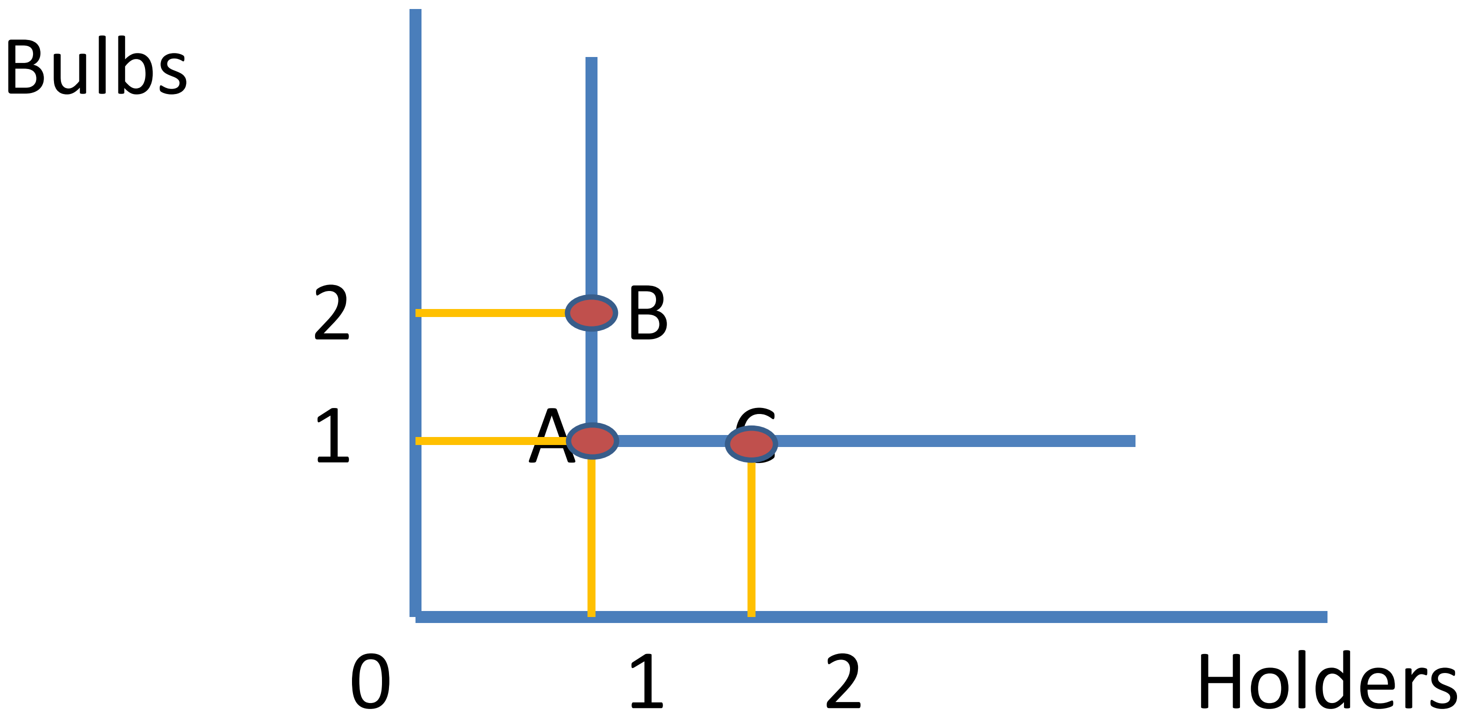
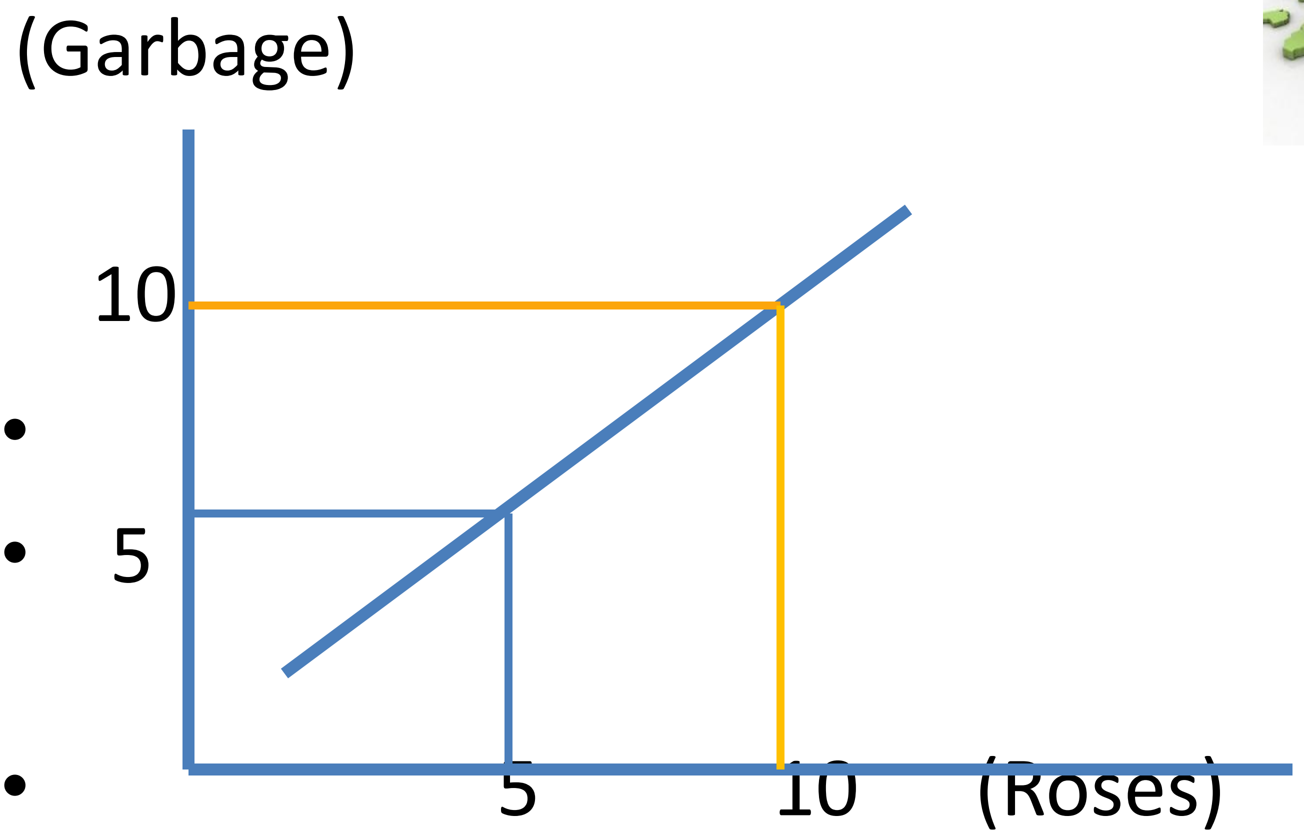
Perfect Complements



One good gives utility, other disutility



The concept of budget line

Meaning: The line showing various combinations of two goods which the consumer can purchase by spending his entire budget on them, given their prices.

- **Example**

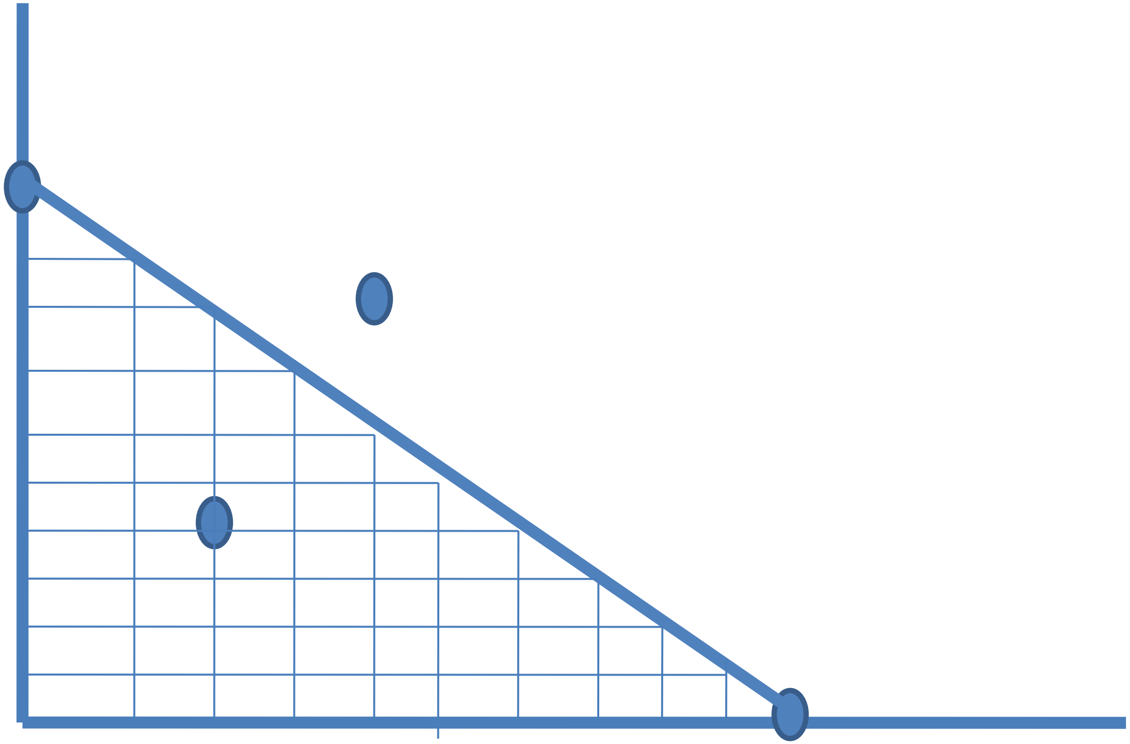
B= Rs.10

Px= Re. 1

Py= Rs. 2

Good-X	Good-Y
0x	5y
1x	4.5y
2x	4y
3x	3.5y
4x	3y
5x	2.5y
6x	2y
7x	1.5y
8x	1y
9x	0.5y
10x	0y

Budget Line (Price Line, Opportunity Line)



Shift in BL

1. When Px ↓, BL shifts outside (right) on X-axis
2. When Px↑ , BL shifts inside (left) on X-axis
3. When Py↓ , BL shifts outside (right) on Y-axis
4. When Py ↑, BL shifts inside (left) on Y-axis
5. When B ↑, there is a parallel outward (Rightward) shift in BL
6. When B ↓, there is a parallel inward (leftward) shift in BL

Concept of Consumer's Equilibrium

1. Definition
2. Assumptions
3. Diagrammatic Presentation
4. Conditions

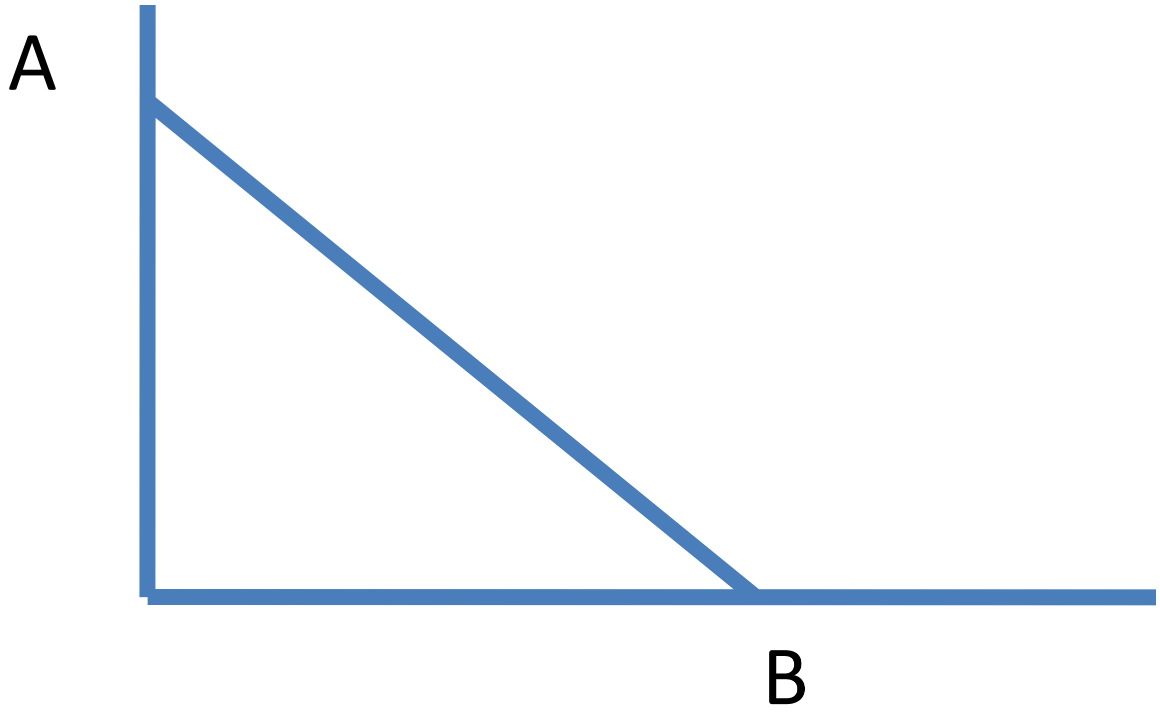
Definition

The consumer is said to be in equilibrium when he has no tendency to change either the consumption of good X or the consumption of good y

Assumptions

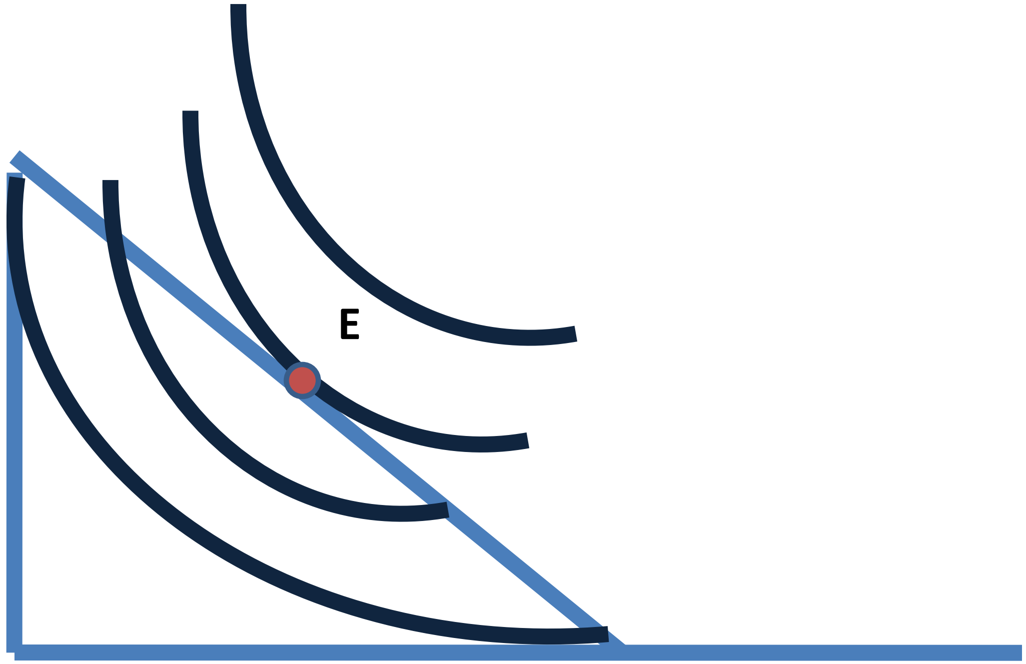
1. The consumer's budget is given
2. The indifference curve map of the consumer is given

Diagrammatic Presentation



Diagrammatic Presentation

Diagrammatic presentation



Conditions

1. The budget line should be **tangent** to the IC

2. The **slope** of the Budget Line is **equal** to **slope** of the Indifference curve

3. MRS xy **=** Px/Py