



PRESIDENCY COLLEGE  
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# Microeconomics

## Cardinal Utility

Presidency  
Group

OVER  
**40**  
YEARS  
OF ACADEMIC  
WISDOM



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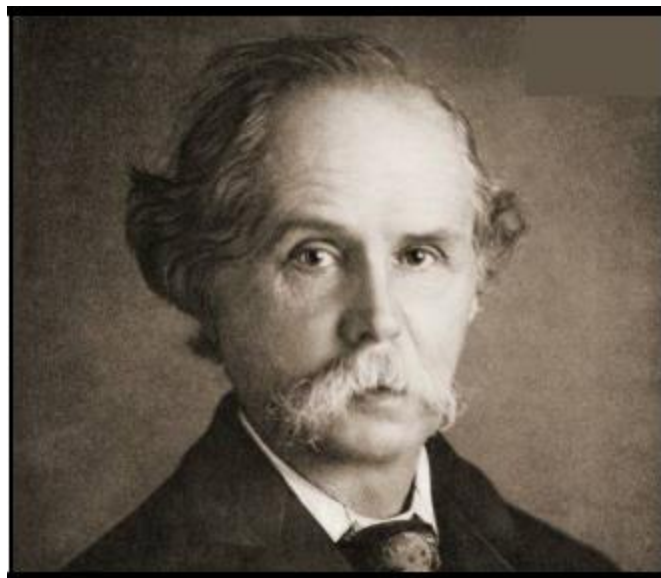
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# Sir Alfred Marshall

**“Utility Measured in Numbers”**



**“The Most Valuable of all Capital is that  
invested in Human Beings”**



# CONSUMER'S EQUILIBRIUM

How does a consumer decide as to how much to buy of a good?

- (a) The price he pays for each unit
- (b) The utility he derives on consuming

$$MU_x = P_x$$



## If Price per Unit is Rs. 10, Derive Consumer Equilibrium.

Consumption	Total Utility
1	20
2	36
3	46
4	50
5	50
6	48



# Consumer's Equilibrium

Consumption (Units of X)	Price (₹) ( $P_X$ )	$MU_X$ (Utils)
1	10	20
2	10	16
3	10	10
4	10	4
5	10	0
6	10	-2



# Decision to consume more!

- If  $MU_x > P_x$ , \_\_\_\_\_
- If  $MU_x = P_x$ , \_\_\_\_\_
- If  $MU_x < P_x$ , \_\_\_\_\_



# Consumer's Equilibrium

Consumption (Units of X)	Price (₹) ( $P_x$ )	$MU_x$ (Utils)	$MU_x(₹)$ (1 Util = Re. 1)	Difference	Remarks
1	10	20	$20/1 = 20$	10	$MU_x > P_x$ , consumer will increase the consumption
2	10	16	$16/1 = 16$	6	
3	10	10	$10/1 = 10$	0	$MU_x = P_x$ , consumer's equilibrium
4	10	4	$4/1 = 4$	-6	$MU_x < P_x$ , consumer will decrease the consumption
5	10	0	$0/1 = 0$	-10	
6	10	-2	$-2/1 = -2$	-12	

# Two or More Commodities

$$MU_x / P_x = MU_y / P_y = MU_z / P_z$$

Conditions:

1. Marginal utility of the last rupee of expenditure on each good is the same.
2. Marginal utility of a good falls as more of it is consumed.





# Calculate Consumer Equilibrium.

Units	Total Utility (X)	Total Utility (Y)
1	20	24
2	38	45
3	54	63
4	68	78
5	80	90
6	90	99
Total Budget	Rs. 24	
Price/ Unit	Rs. 2	Rs. 3



# Two Commodities Case:

Units	MU <sub>X</sub>	MU <sub>Y</sub>
1	20	24
2	18	21
3	16	18
4	14	15
5	12	12
6	10	9

- Price Per unit of X is Rs. 2
- Price Per unit of Y is Rs. 3
- Overall Budget is Rs. 24

Calculate the  
Equilibrium.



Units	$MU_X$	$MU_X/P_X$ (A Rupee worth) of MU	$MU_Y$	$MU_Y/P_Y$ (A Rupee worth) of MU
1	20	$20/2 = 10$	24	$24/3 = 8$
2	18	$18/2=9$	21	$21/3=7$
3	16	$16/2 = 8$	18	$18/3=6$
4	14	$14/2 = 7$	15	$15/3 = 5$
5	12	$12/2 = 6$	12	$12/3 = 4$
6	10	$10/2=5$	9	$9/3=3$





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# Microeconomics

## Ordinal Utility Indifference Curve



# Sir John Richard Hicks



“ The best of all monopoly profits is a quiet life”

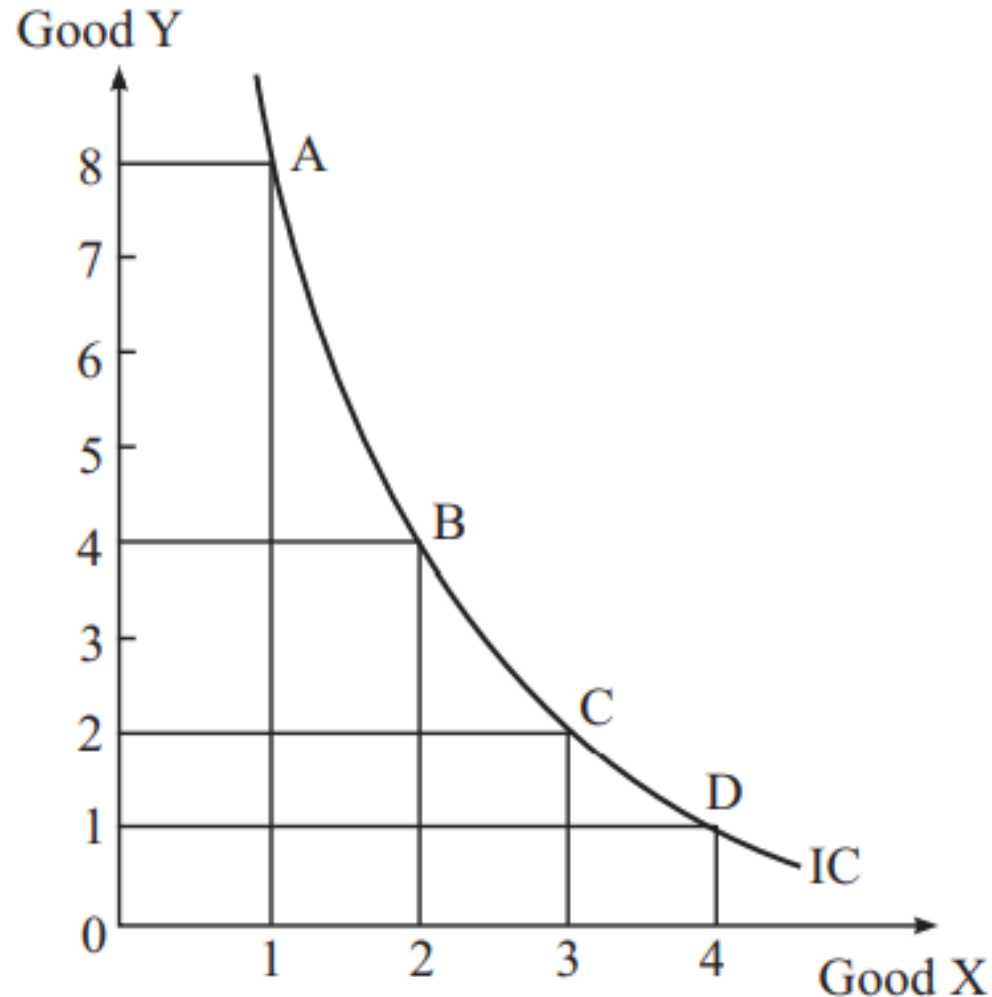


# Indifference Curve: (Preference)

Combinations	Good X (Units)	Good Y (Units)
A	1	8
B	2	4
C	3	2
D	4	1



# Marginal Rate of Substitution





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