

$$g_{\text{in three sector model}} = k = \frac{1}{1 - b(1-t)}$$

CA Foundation – Economics & BKC - Economist Summary

CHAPTER 1: NATURE AND SCOPE OF BUSINESS ECONOMICS

Sno.	Concept	Formula
1	Total Utility	$TU = MU_1 + MU_2 + MU_3 + \dots + MU_n^{\text{th}} \text{ Units}$
3	Marginal Utility	1. Marginal Utility = $\frac{\text{Change in Total Utility } (\Delta TU)}{\text{Change in No. of Units Consumed } (\Delta Q)}$ 2. $MU_n = TU_n - TU_{n-1}$
4	Consumer Equilibrium - Cardinal	$\frac{MU_x}{\text{Price}_x} = \frac{MU_y}{\text{Price}_y}$
5	Consumer Surplus	1. What a consumer is ready to pay - what he actually pays. 2. Marginal Utility (MU) - Price
6	Consumer Equilibrium - Ordinal	$MRS_{xy} = MU_x / MU_y$
7	PRICE ELASTICITY {PERCENTAGE METHOD} =	$\frac{\% \text{ Change in quantity demanded}}{\% \text{ change in price}}$ use this $\therefore \Delta = \frac{\text{New} - \text{Old}}{\text{old}} \times 100$ $\text{or } \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$
8	Method of derivative	$\frac{-dq \times p}{dp \times q}$ $\frac{\Delta q}{\Delta p} \times \frac{p}{q}$ old/New → old/Base
9	Method of Graph	Lower segment/Upper segment $\text{or } \frac{\Delta Q}{\Delta P}$
10	Arc Elasticity	$\frac{(q_1 - q_2) \times (p_1 + p_2)}{(q_1 + q_2) (p_1 - p_2)}$
11	Total Outlay Method	1. If Total expenditure & Price moving in same direction - Inelastic Direct 2. If Total expenditure & Price moving in Opposite direction - Elastic Inverse 3. If total revenue remains unchanged - Unit elastic $E = 1$
12	Income Elasticity	$\frac{\% \text{ change in Demand}}{\% \text{ change in income}}$ $\text{or } \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$ $\therefore \text{change} = \frac{\text{New} - \text{old}}{\text{old}} \times 100$
13	Cross Elasticity	$\frac{\% \text{ change in Demand of good } x}{\% \text{ change in price of good } y}$ $\frac{\Delta Q_x}{\Delta P_y} \times \frac{P_y}{Q_x}$
14	Advertisement Elasticity	$\frac{\% \text{ change in demand of commodity}}{\% \text{ change in advertisement expenditure}}$ $\frac{\Delta Q}{\Delta A} \times \frac{A}{Q}$ It is typically Positive
15	Elasticity of supply - % Change method	$\frac{\% \text{ change in Quantity supplied}}{\% \text{ change in price}}$
16	Arc Elasticity	$\frac{(S_1 - S_2) \times (P_1 + P_2)}{(S_1 + S_2) (P_1 - P_2)}$
17	Method of derivative	$\frac{dq \times p}{dp \times q} \times \text{Point Elasticity} = \frac{\Delta Q}{\Delta P}$ $\text{or } \frac{\text{Lower Segment}}{\text{Upper Segment}}$
18	Cobb-Douglas	$Q = KL^a C^{(1-a)}$

MRS will be constant if Perfect substitute

Direct

It is typically Positive

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19	Average Product	$\frac{\text{Total product}}{\text{Quantity of input}}$
20	Marginal Product	<ol style="list-style-type: none"> $\frac{\text{Change in Total Product } (\Delta TP)}{\text{Change in No. of Quantity } (\Delta Q) \text{ of Input}}$ $MP_n = TP_n - TP_{n-1}$
21	Economic Costs	Explicit Costs + Implicit Costs
22	Marginal cost per unit	<ol style="list-style-type: none"> Difference in Total Cost (TC) between two output levels Difference in Output Quantity at those levels Difference in Total variable (TVC) of two units Difference in Output Quantity of two units $TC_n - TC_{n-1}$ $TVC_n - TVC_{n-1}$ <p style="text-align: right;">} - same in only cost chapter [only in short Run]</p>
23	Total Cost	<u>Total Fixed cost + Total variable cost</u>
24	Average Total Cost	<ol style="list-style-type: none"> $\frac{\text{Total Cost}}{\text{Total output}}$ Average Fixed cost + Average Variable cost
25	Average Fixed cost - AFC	$\frac{TFC}{Q}$
26	Average Variable cost - AVC	$\frac{TVC}{Q}$
27	Total Revenue	Price x Quantity (P x Q)
28	Average Revenue $\neq (AR = P)$	<ol style="list-style-type: none"> $\frac{\text{Total Revenue}}{\text{Quantity}}$ (TR/Q) Also Known as Price
29	Marginal Revenue	<ol style="list-style-type: none"> $\frac{\text{Change in TR}}{\text{Change in Qty. sold}}$ $TR_n - TR_{n-1}$ Marginal Revenue = Average Revenue (E - 1/E) $\star \leftarrow$ use this for Price Determination
30	Accounting profit	Total revenue - Explicit cost \neq $1000 - 200 = 800$
31	ECONOMIC PROFIT	Total Revenue - (Explicit Cost + Implicit Cost) $1000 - (200 + 100) = 700$
32	Profit maximisation condition	<ol style="list-style-type: none"> <u>MC = MR</u> <u>MC Curve cuts MR from Below</u>

MICRO

National Income

$$\text{Nominal GDP} = \frac{\text{REAL GDP} \times \text{GDP Deflator}}{100}$$

$$\text{Real} = \frac{\text{Nominal GDP}}{\text{GDP Deflator}} \times 100$$

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

$$\text{Inflation Rate of two year} = \frac{\text{New} - \text{Old}}{\text{Old}} \times 100$$

$$\text{I } C = \bar{c} + b(Y - T) \quad y_d = (Y - T) \quad * T = \text{Tax}$$

$$\text{II } C = \bar{c} + b(Y - T) \quad * T = \bar{T} + ty$$

$$\text{III } C = \bar{c} + b(Y - T + T_r) \quad * T = \text{Tax} \\ T_r = \text{transfer Payment}$$

$$K = \frac{1}{1 - b(1 - t)} \quad \text{Normal } K = \frac{1}{1 - \text{MPC}} \quad \frac{\Delta Y}{\Delta I}$$

Macro

$$\text{Net NDY} = \text{NNP}_{FC} + \text{NIT} + \text{Net Current Transfers from rest of world}$$

$$\text{Gross NDY} = \text{Net NDY} + \text{Depreciation}$$

$$\text{consumption Function } C = \bar{c} + by$$



* a = Autonomous

$$* b = \frac{\Delta C}{\Delta Y}$$

$$\text{consumption Function } S = -\bar{c} + (1 - b)Y$$

Relation b/w $-Y, C, S$

