

1. Price Elasticity of Demand

$$PED = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in price}}$$

2. Cross Elasticity of Demand

$$XED = \frac{\% \text{ change in quantity demanded for Good X}}{\% \text{ change in price of Good Y}}$$

Where:

Positive XED => products are substitutes

Negative XED => products are complements or jointly demanded.

3. Income Elasticity of Demand

$$YED = \frac{\% \text{ change in quantity demanded}}{\% \text{ change in income}}$$

Where:

Positive YED => Normal Goods

Negative YED => Inferior Goods

4. Price Elasticity of Supply

$$PES = \frac{\% \text{ change in quantity supplied}}{\% \text{ change in price}}$$

5. Slope of Indifference Curve (for Good X and Good Y)

$$Slope_{IC} = \frac{MU_x}{MU_y}$$

Where:

MU_x = Marginal Utility of Good X

MU_y = Marginal Utility of Good Y

6. Budget Line (for Good X and Good Y)

$$I = Q$$

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Where:

Q_x = Quantity of Good X

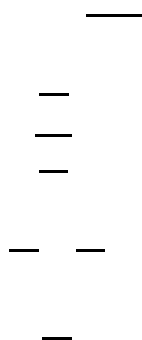
P_x = Price of Good X

I = Income

Q_y = Quantity of Good Y

P_y = Price of Good Y

Rate of Exchange between Y and X = Slope of Budget Line



7. Consumer Equilibrium or Equimarginal Principle

Consumer Equilibrium is attained at the point where Indifference Curve (IC) is tangent to the Budget Line (BL).



8. Average Product (AP)



9. Marginal Product (MP)



10. Average Fixed Cost (AFC)



11. Average Variable Cost (AVC)



12. Total Cost (TC)

$$\text{Total Cost} = \text{Fixed Cost} + \text{Variable Cost}$$

When Output is Zero $\text{Total Cost} = \text{Fixed Cost}$

13. Marginal Cost (MC)

$$MC = \frac{\text{Change in } TC}{\text{Change in } TP}$$

Where TC = Total Cost

TP = Total Product

14. Average Cost (AC)

$$\text{Average Cost} = \frac{\text{Total Cost}}{\text{Total Product}}$$

15. Total Revenue (TR)

$$TR = \text{Price} \times \text{Quantity}$$

16. Average Revenue (AR)

$$AR = \frac{\text{Total Revenue}}{\text{Total Product}}$$

17. Marginal Revenue (MR)

$$MR = \frac{\text{Change in } TR}{\text{Change in } TP}$$

18. Profit

$$\text{Profit} = TR - TC$$

19. Marginal Revenue Product of Labour (MRPL)

A firm will continue to hire labour up to the point where:

$$MR = MC$$

(This is also profit maximizing output level)

$$MRPL = \frac{\text{Change in } TR}{\text{Change in Labour Units}}$$

$$MPL = \frac{\text{Change in } TP}{\text{Change in Labour Units}}$$

20. Social Benefits and Social Costs

$$\text{Social Benefits} = \text{Private Benefits} + \text{External Benefits}$$

$$\text{Social Costs} = \text{Private Costs} + \text{External Costs}$$

21. Terms of Trade

$$\text{Terms of Trade Index} = \frac{\text{Index of Export Prices}}{\text{Index of Import Prices}} \times 100$$

22. Consumer Price Index (CPI)

Where:

W = Weight associated to commodity in household expenditure

P = Price of commodity

N = Total number of commodities in the basket of goods and services index

23. National Income

Gross Domestic Product (GDP) = Total Output produced in an economy within a year

Gross National Product (GNP) = GDP + Net Property Income from Abroad (NPIA)

Net National Product (NNP) = GNP – Capital Consumption

Net Domestic Product (NDP) = GDP – Capital Consumption

24. Real GDP

25. GDP Deflator

26. Aggregate Expenditure (AE) or National Income (Y)

Where:

C = Consumption

G = Government Spending

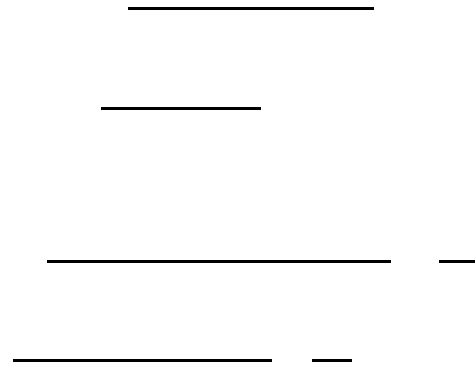
I = Investment

X = Exports

M = Imports

(X – M) = Net Exports

27. Consumption



28. Multiplier



Multiplier in Two-Sector economy (household & firms) = —

Multiplier in Three-Sector economy (2-sector+ government) ———

Where mrt = marginal rate of taxation

Multiplier in Four-Sector economy (3-sector+ Trade) —————

Where: mpm = marginal propensity to import

29. Credit Multiplier



30. Total Labour Force

Labour force = Total number of employed people + Total number of unemployed people

31. Adult Population

Adult Population = Total labour force + Number of people not in labour force.

32. Labour Force Participation Rate

Labour Force Participation Rate = _____

33. Unemployment Rate:

34. Real Exchange Rate

35. Monetary Equation (Quantity Theory of Money)

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Nominal GDP = PY

Where:

M = Money Supply

Y = Real GDP

P = Price Level

V = Velocity of Money