

Idea of National Income

GDP (Gross Domestic Product)

It is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.

- Territory based concept; the nationality of the persons involved is irrelevant here
- Functions as a scorecard of the country's economic health

NDP (Net Domestic Product)

It is an annual measure of the economic output of a nation that is adjusted to account for depreciation and is calculated by subtracting depreciation from the gross domestic product (GDP).

$$\text{NDP} = \text{GDP} - \text{Depreciation}$$

Depreciation is a reduction in the value of an asset over time, due in particular to wear and tear.

Real GDP

Calculated in such a way that goods and services are evaluated at some **constant set of prices** (Value of GDP @ base year prices)

Base Year

The year whose prices are being used to calculate the real GDP

Nominal GDP

Value of GDP at **current prevailing prices**

Ratio of Nominal GDP to Real GDP gives us an idea of how prices have moved to the current year

Calculation of GDP

Four Factors of Production

- Land (requires rent)
- Labor (requires wage/salary)
- Capital (requires interest)
- Entrepreneurship (requires profit)

Value added method of calculating GDP

Net economic contribution of a firm is referred to as the ‘value added’ of a firm.

Suppose a firm produces an item worth (Pw) 300/-. To produce said item intermediate goods worth (Ig) 75/- are required. So, Value added (Va) of the firm is $= 300 - 75 = 225/-$

$$Va = Pw - Ig$$

If there are n number of such firms, then $GDP = \Sigma Va$

How this Value added is used, leads to 2 other methods of calculating GDP

Value added from demand side (Expenditure Method)

The value added of a firm is used up in different ways such as

- Consumption C
- Investment I
- Government G
- Export X

$$Va = C + I + G + X - M \text{ (Where M is import)}$$

Value added from company consumption side (Income method)

Value added of a firm must be distributed among the factors of production i.e. Rent (R), Wages (W), Interest (In), Profit (P)

$$Va = R + W + In + P$$

Gross National Product (GNP)

GNP = GDP + Factor income earned by domestic factors employed in rest of the world – Factor income earned by factors of production of the rest of the world employed in domestic economy

$$\text{GNP} = \text{GDP} + \text{Indian's income from abroad} - \text{RoW income from India}$$

- GNP is a nationality-based concept whereas GDP is a territory based one
- Profits earned by Korean based Hyundai car factory in India will have to be subtracted from the GDP to get GNP

Net National Product (NNP)

If we deduct depreciation from GNP, the measure of aggregate income we obtain is called Net national Product

$$\text{NNP} = \text{GNP} - \text{Depreciation}$$

National Income (NI)

NNP at factor cost is called National Income

- Indirect taxes add to the actual price hence it is subtracted from NNP
- Subsidies bring down the actual price hence it is added to the NNP

$$\text{NI} = \text{NNP @ market price} - \text{Indirect taxes} + \text{Subsidies}$$

$$\text{NI} = \text{NNP @ market price} - \text{Net Indirect taxes}$$

Personal Income (PI)

PI = NI – Undistributed profits – Net interest paid by household (govt. loans) – Corporate tax + Transfer payments to the households from the governments and firms (Scholarships, Pensions etc.)

Personal Disposable Income (PDI)

$$\text{PDI} = \text{PI} - (\text{Personal tax payments} + \text{Non-tax payments})$$