

National Income

(Concept and Measurement)



National Income

- **National income is the money value of all the final goods and services produced by a country during a period of one year. National income consists of a collection of different types of goods and services of different types.**

National Income

- **Since these goods are measured in different physical units it is not possible to add them together. Thus we cannot state national income is so many millions of meters of cloth. Therefore, there is no way except to reduce them to a common measure. This common measure is money.**

Basic Concepts In National Income

- **Gross domestic product**
- **Gross domestic product at constant price and at current price**
- **Gross domestic product at factor cost and Gross domestic product at market price**

Basic Concepts In National Income

- **Net domestic product**
- **Gross national product**
- **Net national Product**
- **Net national product at factor cost or national income**

Gross Domestic Product

- **Gross domestic product is the money value of all final goods and services produced in the domestic territory of a country during an accounting year.**

Gross Domestic Product at Constant price and Current price

- **GDP can be estimated at current prices and at constant prices. If the domestic product is estimated on the basis of the prevailing prices it is called gross domestic product at current prices.**

Gross Domestic Product at Constant price and Current price

- **If GDP is measured on the basis of some fixed price, that is price prevailing at a point of time or in some base year it is known as GDP at constant price or real gross domestic product.**

GDP at Factor cost and GDP at Market price

- The contribution of each producing unit to the current flow of goods and services is known as the net value added.
- GDP at factor cost is estimated as the sum of net value added by the different producing units and the consumption of fixed capital.

GDP at Factor cost and GDP at Market price

- Conceptually, the value of GDP whether estimated at market price or factor cost must be identical. This is because the final value of goods and services must be equal to the cost involved in their production.
- **$\text{GDP F.C} = \text{GDP M.P} - \text{IT} + \text{S}$**

Net Domestic Product

- **While calculating GDP no provision is made for depreciation allowance (also called capital consumption allowance). In such a situation gross domestic product will not reveal complete flow of goods and services through various sectors.**

Net Domestic Product

- A part of is therefore, set aside in the form of depreciation allowance. When depreciation allowance is subtracted from gross domestic product we get net domestic product.
- $NDP = GDP - Depreciation.$

Gross National Product

- **Gross national product is defined as the sum of the gross domestic product and net factor incomes from abroad. Thus in order to estimate the gross national product of India we have to add net factor income from abroad - income earned by non-resident in India to form the gross domestic product of India.**
- **In brief $GNP = GDP + NFIA$.**

Net National Product

- It can be derived by subtracting depreciation allowance from GNP. It can also be found out by adding the net factor income from abroad to the net domestic product.
- $NNP = GNP - Depreciation$

Net National Product

- **If the net factor income from abroad is positive then NNP will be more than NDP, If the net factor income from abroad is negative then NNP will be less than NDP and it would be equal when net factor income from abroad is zero.**
- **$NNP = NDP + NFIA$**

NNP at factor cost or National Income

- **NNP at factor cost is the volume of commodities and services turned out during an accounting year, counted without duplication. It can also be defined as the net value added at factor cost in an economy during an accounting year.**

NNP at factor cost or National Income

- **NNP at factor cost or national income is defined as the sum of domestic factor incomes and net factor income from abroad. If NNP figure is available at market price we will subtract indirect taxes and add subsidies to the figure to get NNP at factor cost or national income of the economy.**

NNP at factor cost or National Income

- **NNP at FC = National Income = FID + NFIA**
- **FID factor income earned in the domestic territory of a country.**
- **Net Factor Income from Abroad.**

Personal Income And Disposable Income

- **Personal income and disposable income are two concepts of national income very commonly used in advanced countries. Personal income may be defined as the current income of persons or households from all services. Personal income is not a measure of production.**

Disposable Income

- **All personal income is not at the disposal to be spent on consumption. Individuals have to pay personal direct taxes to the government. They are free to spend only after the payment of taxes.**
- **DPI = Personal income – Personal Direct taxes.**

Disposable Personal Outlay

- The disposable personal income may be spent fully or individuals may save. What remains after saving is called the personal outlay. Disposable income is equal to consumption and savings
- **Disposable outlay = Disposable income – Savings.**

Disposable Personal Outlay

Disposable Personal Outlay

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- Disposable outlay = Disposable income – Savings.

Real Income

- Since national income does not reveal the real state of the economy, the concepts of real income has been used. To find out the real income of the economy, a base year is selected and the price level of that year is assumed to be 100.

- **Real income=**
$$\frac{\text{Money Income} \times 100}{\text{Price Index}}$$

Methods Of Measuring National Income

- The national income of a country can be measured in three alternative ways
- **Census of production method**
- **As a flow of income, and**
- **As a flow of expenditure**
- Added to this, there is yet another method of estimating national income i.e., **Value added method.**

Product Method

- **This method is popular in U.S.A. and is called as Total Product method or Goods Flow Method. In India, It is known as inventory or Product method. In this method, the economy is classified in to three transaction sector like industrial, services and foreign transaction sector where international payments are considered.**

Product Method

- **We calculate the money value of all final goods and services produced in an economy during a year. The money value of these goods and services is calculated at market price. The sum-total is called the GDP at market price**

Product Method

Product (or Output) Method

- The market value of all the goods and services produced in the country by all the firms across all industries are added up together.
- Process
 - The economy is divided on basis of industries, such as agriculture, fishing, mining and quarrying, large scale manufacturing, small scale manufacturing, electricity, gas, etc.
 - The physical units of output are interpreted in money terms
 - The total values added up. (GDP at market price)
 - The indirect taxes are subtracted and the subsidies are added. (GDP at factor cost)
 - Net value is calculated by subtracting depreciation from the total value (NDP at factor cost).

Income Method

- We estimate the income earned by various factor services engaged in the process of production. The sum of these Incomes provides us the Measure of gross national income at factor cost

Income Method

- $\text{GNP} = \text{wages and salaries} + \text{rent} + \text{interest} + \text{Dividends} + \text{undistributed corporate profits} + \text{mixed incomes} + \text{direct taxes} + \text{indirect taxes} + \text{depreciation} + \text{net income from abroad.}$

Expenditure Method

- Prof. Samuelson calls this as “ Flow of Product Approach”. In India, it is known as Outlay method. GNP is the sum of expenditure incurred on goods and services during one year in a country.
- **$GNP = C + I + G + (x - m)$**

Expenditure Method

- **We sum up the flow of expenditure in an economy to arrive at national income estimates, If we add the value of expenditure on all these items we get the value of gross national expenditure at market prices**

Expenditure Method

MEASURING NATIONAL INCOME The Expenditure Method

- This measures the value of all spending on goods and services in the economy.
- This is calculated by summing up the spending by all the different sectors in the economy.

These include:

- Spending by households, known as **Consumption (C)**
- Spending by firms, known as **Investment (I)**
- Spending by **Governments (G)**
- Spending by foreigners on **exports** minus spending on **imports**. **(X-M)**

Value Added Method

- In order to avoid double counting value added at each stage of production should be calculated to arrive at GNP. The difference between the value of output and input at each stage of production is called the value added. By summing such value added for all industries in the economy, GNP can be found out.

Value Added Method

Value Added Method

- GDP for a given year is calculated by summing all values added in the economy.
- Value added is a measure of each firm's contribution to total output, ie., the amount of market value produced (added) by that firm.
- $VA \text{ by a firm} = \text{Value of the firm's output} - \text{Value of inputs purchased from other firms}$
- It avoids the statistical problem of double counting.

Circular Flow Of National Income

- Lipsey defined the circular flow of income as “ the flow of payments from domestic households to domestic firms and back again”. National income and expenditure flow in a circular manner. In any economy, both commodities and factors of production are constantly being exchanged for money.

Circular Flow Of National Income

- **Simple Economy**
- **Two sector model = $Y = C + I$**
- **Three Sector Model = $Y = C + I + G$**
- **Four sector model = $Y = C + I + G + (x - m)$**
- **The concept of circular flow shows clearly whether the economy is working efficiently or whether there is any disequilibrium in its working. It also helps in restoring equilibrium.**

Problems In Estimating National Income

- Simon Kuznets national income is not limited to the territorial boundaries of a country. We must include income of all the residents of a country even if they are abroad.**
- Another difficulty in estimating the national income in UDC is the prevalence of non-monetized sector.**
- Income earned through illegal activities is not included**

Problems In Estimating National Income

- Services rendered free of charge are not included in GNP. By leaving out these service, national income will work out to be less.
- Transfer payments are not included in national income as they do not contribute to national product.
- Capital gains and losses are not included in GNP as they are not the result of current economic activities

Problems In Estimating National Income

- In the calculation of national income leisure foregone in the process of production is not included.
- In UDC due to illiteracy, most producer do no keep regular accounts.
- Another difficulty in the measurement of national income in underdeveloped countries is lack of adequate statistical data.

Trends In India's National Income Growth And Structure

- Trend in NNP: The real national income of India has increased at an annual average rate of 4.4% during the 55 years of economic planning. If we consider the last 14 years we find that the rate of increase in the national income has been around 6% per annum. Although this is an encouraging sign.

Trends In India's National Income Growth And Structure

- During the tenth five year plan they set up the target of 8% growth rate but achieved at 7.6%, this encouraged the eleventh planners to set a target of 8.5% per annum growth rate.

Trends In Per Capita Income

- India's per capita net national product i.e., during the last 55 years of planning has increased at a rate of 2.3% per annum. It is to be noted that during the last 14 years the rate of increase in per capita national income is significant. It was around 4.5 % per annum in this period as against 1.25% per annum during the first 30 years of economic planning.

Importance of National Income Analysis

- They provide as an index of economic activity and an instrument of economic planning.
- National income accounting indicates the growth of the economy in terms of income and output.
- National income statistics help the policy makers to frame policies to achieve full employment and rapid economic growth.

Importance of National Income Analysis

- A complete knowledge about the trends in national income is essential in economic planning.**
- Research scholar also make use of national income data pertaining to input, output, saving, consumption, investment and employment.**
- National income statistics it helps in solving the remove inequalities in incomedistribution.**

Thanks...



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