

Chapter

National Income Accounting

NATIONAL INCOME:

National Income is the total of the money value of all final goods and services produced in a country during a financial year. It is the income of the people of a nation during a year.

FINAL GOODS:

Goods used for final consumption and not again subjected to the process of production is called final goods. The final goods itself are of two types- consumption goods and Capital goods.

CONSUMER OR CONSUMPTION GOODS:

Goods are not subjected to a further process of Production and used by the Consumer directly are called consumer or consumption goods. eg. pen, pencil.

PRODUCER GOODS OR CAPITAL GOODS: Goods once produced and which can be used again for Production are called Producer or Capital Goods. E.g. Machines, buildings.

INTERMEDIATE GOODS: Goods used as an input for producing other goods are called intermediate goods. E.g wood in a paper factory, leather in a shoe factory.

INVESTMENT: Investment means Capital formation. It is the addition to the existing stock of Capital. It is a Flow variable.

GROSS INVESTMENT: Total durables or Capital goods produced during a year in an economy is called Gross Investment.

NET INVESTMENT: The addition to the existing stock of capital is a net investment. It is the new capital formation.

$$\text{NET INVESTMENT} = \text{GROSS INVESTMENT} - \text{DEPRECIATION}$$

DEPRECIATION OR CONSUMPTION OF FIXED CAPITAL: The loss of value of fixed

assets due to normal wear and tear is called Depreciation. It is also called the Consumption of fixed capital.

STOCK VARIABLE

A Variable that can be measured at a point of time is called a STOCK. It is a static concept. It has no time limit. It is measured at a particular point in time. E.g. Wealth, Capital, Inventory.

FLOW VARIABLE

A Variable that is measured in a specific period is called a FLOW. It is a dynamic concept. It is measured over some time. E.g. Consumption, income, change in inventory.

INVENTORY

The quantity of output that a firm could not be sold is called Inventory. In short, it is the unsold stock. Inventory is a stock variable. It may accumulate or decumulate.

ACCUMULATION OF INVENTORY

If the value of Inventory at the end of the year is more than the value of inventory at the beginning of the year, it is called the accumulation of Inventory.

DECUMULATION OF INVENTORY

If the value of Inventory at the end of the year is less than the value of inventory at the beginning of the year, it is called the decumulation of Inventory.

PLANNED ACCUMULATION OF INVENTORY

The deliberate increase in the stock of goods of a firm is called Planned Accumulation of Inventories.

PLANNED DECUMULATION OF INVENTORY

The deliberate decrease in the stock of goods of a firm is called the Planned decumulation of Inventories.

UNPLANNED ACCUMULATION OF INVENTORY

The unexpected increase in the stock of goods due to the fall in sales is called an Unplanned accumulation of Inventories.

UNPLANNED DE CUMULATION OF INVENTORY

The unexpected decrease in the stock of goods due to the rise in sales is called an Unplanned decumulation of Inventories.

Change in inventory = Closing stock - Opening stock.

NET INDIRECT TAX (NIT): Indirect Tax is the tax imposed by the government on goods and services. Sometimes the government gives Subsidies to encourage producers. The difference between Indirect Tax and Subsidy is called Net Indirect Tax.

NET INDIRECT TAX = INDIRECT TAX – SUBSIDIES.

TRANSFER PAYMENT OR TRANSFER INCOME OR TRANSFER RETURNS.

It is a unilateral payment for which no services are rendered. Usually, It is paid by the government. Eg. Old age pension, Scholarship, Widow pension, etc.

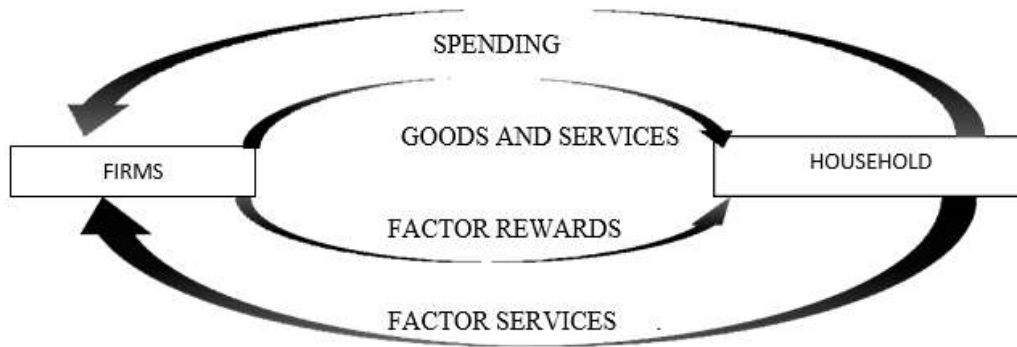
NET FACTOR INCOME FROM ABROAD (NFIA).

It is the difference between the factor income earned by the domestic factors of production employed in the rest of the world and the factor income earned by factors of production of the rest of the world employed in the domestic country.

MACROECONOMIC MODEL: functioning of an imaginary economy is called Macro-Economic Model.

CIRCULAR FLOW OF INCOME IN A TWO SECTOR ECONOMY.

It is a flow that shows how the income of an economy circulates different sectors in an economy. The two sectors that exist in an economy are Firms and Households. Firms are the Production units and they receive factors of production from the households and give rewards for the factors production. The households spent the entire income received from the forms and nothing to save. This is shown by the flow chart.



In the above diagram, the lowermost arrow from the household to firms shows the flow of factor services such as Land, Labour, Capital, and Entrepreneurship from the household to firms. The flow just above the factor service flow is the counter flow of factor service flow. The firms PRODUCE goods and services and it flows into the households. Its counter flow is spending. The flow of factor services and goods and services is called real flow. And the flow of factor rewards and spending is called money flow.

SEMINAR ON THE TOPIC 'MEASUREMENT OF NATIONAL INCOME OR GDP'

'MEASUREMENT OF NATIONAL INCOME'

Respected teachers and My dear friends,

The topic of my seminar paper is 'MEASUREMENT OF NATIONAL INCOME'. The concept of National Income occupies an important role in Macro Economics. National Income is the total of the money value of all final goods and services produced in a country during a financial year plus net factor income from abroad (NFIA). In this seminar paper, I would like to present various methods for measuring National Income

INTRODUCTION:

National Income can be measured in three different methods. They are the following.

1. PRODUCT METHOD OR VALUE ADDED METHOD
2. INCOME METHOD
3. EXPENDITURE METHOD

PRODUCT METHOD OR VALUE ADDED METHOD

Under this method, National Income can be measured by adding all the final goods and services produced by each firm in the economy during a financial year. Then the

problem of Double Counting arises. Double Counting means the value of a good or service is added more than once in the calculation of National Income. To avoid double-counting we use Value Added Method. Value-added or Gross Value Added is the difference between the value of output and intermediate consumption.

Value Added OR Gross value added = Value of output – Value of intermediate

Consumption Value of output = market price × quantity of output

Under the value-added method, we calculate NI by adding GVA of all firms in the economy during a financial year. we assume that there are N firms in an economy. The NI can be written as follows.

$$GDP \equiv GVA1 + GVA2 + \dots + GVAN$$

Therefore

$$GDP \equiv \sum_{i=1}^N GVA_i$$

$NVA_i \equiv GVA_i - D_i$ here $D_i =$ depreciation.

INCOME METHOD

Under this method, NI is calculated by adding all the factor income received by owners of factors of production. Income received by land is called Rent (R_i), Income received by labor is called Wages and salaries (W_i), Income received by Capital is called Interest (I_n), And Income received by entrepreneurship is called Profit (P_i). Thus GDP can be written as follows.

$$GDP \equiv \sum_{i=1}^N W_i + \sum_{i=1}^N R_i + \sum_{i=1}^N I_n + \sum_{i=1}^N P_i \quad \text{OR } GDP \equiv W + R + I_n + P$$

EXPENDITURE METHOD

Under this ⁴method of calculating NI on the final expenditure on domestic product. The final expenditure is categorized under four heads.

The Final Consumption expenditure (C_i), The Final Investment

expenditure (I_i), The Government ⁵ final Consumption expenditure (G_i), and

The export revenue (X_i).

Then we subtract import expenditure from the sum of $C+I+G+X$. Then the GDP

can be written as follows.

$$\text{GDP} \equiv \sum_{i=1}^N C_i + \sum_{i=1}^N I_i + \sum_{i=1}^N G_i + \sum_{i=1}^N X_i - \sum_{i=1}^N M_i \quad \text{OR} \quad \text{GDP} \equiv C+I+G+X-M$$

CONCLUSION

We use three different methods to calculate GDP or NI. Whatever be the method we get identical results because the value we get through production is the value of factor rewards such as Rent, Wages and salaries, Interest, and Profit. This income is spent for different expenditures.

MACROECONOMIC IDENTITIES: Important Macro Economic Identities are the following.

1. GROSS NATIONAL PRODUCT (GNP):

GNP is defined as the sum of GDP and Net Factor Income from Abroad. It can be written as follows.

$$\text{GNP} \equiv \text{GDP} + \text{NFIA}$$

2. NET NATIONAL PRODUCT (NNP):

NNP is the total money value of all final goods and services produced by the country in an Economic year less Depreciation. It can be written as

follows.

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

3. GROSS DOMESTIC PRODUCT (GDP):

GDP is the total money value of all final goods and services produced in the domestic territory of a Country in a year.

4. NET DOMESTIC PRODUCT (NDP):

NDP is the total money value of all final goods and services produced in the domestic territory of a Country less Depreciation.

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

5. NET INDIRECT TAX (NIT):

It is the difference between Indirect Tax and Subsidies. It can be written as follows.

$NIT \equiv \text{INDIRECT TAX} - \text{SUBSIDIES}$

6. **GDP Market Price (GDPmp):** The⁶ value of GDP calculated on the basis price prevailing

$$\begin{aligned} \text{GDPmp} &\equiv \text{GNPmp} - \text{Depreciation. GDPmp} \\ &\equiv \text{NDPmp} + \text{Depreciation} \end{aligned}$$

in the market is called GDPmp. It includes Indirect Tax and don't include Subsidies.

7. **GDP Factor Cost(GDPFC):**

It is the difference between GDPmp and Net Indirect Tax

$$\begin{aligned} \text{GDP}_{FC} &\equiv \text{GDP}_{MP} - \text{NIT} \\ \text{GDP}_{FC} &\equiv \text{NDP}_{FC} + \text{Depreciation} \end{aligned}$$

8. **PERSONAL INCOME (PI):**

It is the part of National Income received by each household of a Country is called Personal Income. It can be written as follows.

Personal Income (PI) \equiv NI – Undistributed profits – Net interest payments made by households – Corporate tax + Transfer payments to the households from the government and firms.

9. **PERSONAL DISPOSABLE INCOME(PDI):**

If we deduct the Personal Tax Payments (income tax, for example) and Nontax Payments (such as fines) from PI, we obtain what is known as the Personal Disposable Income. Thus

$$\text{PDI} \equiv \text{PI} - \text{Personal tax payments} - \text{Non-tax payments.}$$

10. **Per Capita Income (PCI):**

PCI is the annual average per head income of the people of a Country.

$$\text{PCI} = \frac{\text{NATIONAL INCOME}}{\text{POPULATION}}$$

11. **NATIONAL DISPOSABLE INCOME(NDI):**

It is the Income from all sources available to the residents of a Country for

consumption expenditure and Savings for one year.

$$NDI \equiv NNP_{mp} + \text{current transfers from the rest of the world.}$$

12. PRIVATE INCOME

Private Income = Factor income from net domestic product accruing to the private sector + National debt interest + Net factor income from abroad + Current transfers from government + Other net transfers from the rest of the world.

GDP AND PRICES: GDP is affected by changes in the price level. An increase in the price level increases the value of GDP and vice versa. To eliminate the change in the price level, Economists calculate Nominal and Real GDP.

NOMINAL GDP: The value of GDP calculated based on current year prices is called Nominal GDP. It is denoted with 'GDP'.

REAL GDP: The value of GDP calculated on the basis for base year prices is called Real GDP. It is denoted with 'GDP'.⁷

GDP DEFLATOR	CONSUMER PRICE INDEX
Does not include prices of imported goods.	Include prices of imported goods.
Weights differ according to production level of each good	The weights are constant
Takes all consumers	Takes representatives only

GDP DEFLATION: It is the ratio between nominal GDP and real GDP can be written as follows.

$$\text{GDP DEFLATION} = \frac{\text{GDP}}{\text{gdp}} \text{ or } \frac{\text{GDP}}{\text{gdp}} \times 100$$

CONSUMER PRICE INDEX (CPI): This is the index of prices of a given basket of commodities that are bought by the representative consumer. CPI is generally expressed in percentage terms. We have two years under consideration – one is the base year, the other is the current year. The following are the main differences between GDP deflator and CPI.

WHOLESALE PRICE INDEX (WPI): It measures the relative changes in Wholesale prices. It is also called the Producers Price Index.

WHY GDP IS NOT CONSIDERED AS A GOOD INDICATOR OF WELFARE:

There are at least three reasons why GDP is not considered as a good indicator of welfare. They are the following.

1. **Distribution of GDP – how the uniform is it:** If the GDP of the country is rising, the welfare may not rise as a consequence. This is because the rise in GDP may be concentrated in the hands of very few individuals or firms.
2. **Non-monetary exchanges:** Many activities in an economy are not evaluated in monetary terms. For example, the domestic services women perform at home are not paid for.
3. **Externalities:** It refers to the benefits (or harms) a firm or an individual causes to another for which they are not paid (or penalized). Externalities do not have any market in which they can be bought and sold.

BUDGET DEFICIT AND TRADE DEFICIT: Budget deficit measure by what amount the government expenditure exceeds the tax revenue earned by it. the trade deficit measures the excess of import expenditure over the export revenue earned by the economy.

$$(I - S) + (G - T) \equiv M - X$$

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