PPC Economic Lecture #1

National Income Accounting

- set of rules and techniques that are used to measure the economic activity of a country during a given period.
- Provides conceptual framework to measure GDP, GNP etc.

Types of economic system

- Resources are scarce/limited. Resources can be put to alternative/competing usages. This gives us the problem of choices on how to use the resources.
- Every country/nation faces three fundamental problems
  - What to produce?
  - How to Produce?
  - Whom to Produce?
- We have 3 types of economic system
  - Capitalism / Market Economy
  - Socialism / Command Economy
  - Mixed Economy

S.No.	Features	Capitalism	Socialism	Mixedism
1	Ownership of Means of Production	Private Ownership	Public Ownership	Private Ownership and Public Ownership
2	Economic Motive	Profit	Social Welfare	Social Welfare and Profit Motive
3	Solution of Central Problems	Free Market System	Central Planning System	Central Planning System and Free Market System
4	Government Role	Interanal Regulation only	Complete Involvement	Limited Role
5	Income Distribution	Unequal	Equal	Less unequal
6	Nature of Enterprise	Private Enterprise	Government Enterprise	Both Private and State Enterprises
7	Economic Freedom	Complete Freedom	Lack of Freedom	Limited Freedom
8	Major Problem	Inequality	Inefficiency	Inequality and Ineffiency

Four Factors of Production

- Land (raw material) - Natural resource such as land, water, minerals, etc. The return for the natural resources is called "**Rent**".
- Labour - human labour which may be physical or mental i.e. it can be unskilled, semi-skilled or skilled. When a human being provides his labour to the enterprise, in return he/she expects "**wages**"
- Capital – Physical capital such as building, machinery, equipment & Financial capital (money). The return for capital is called "**Interest**"

- Entrepreneur – Person starting an enterprise by bringing together land, labour and capital. The return for entrepreneur is called "**profit**"

Types of Goods

- Intermediate Goods – used as input in further production. Eg – steel sheets, cotton yarn etc.
- Final Goods – meant for final use. Will not undergo any further transformation in production process. They are of two types:
  - Consumption Goods - consumed by the ultimate consumers. Eg – clothing, food etc
  - Capital goods – durable goods (tools, implements, machines etc.) used in further production of commodities. They themselves don't get transformed in production process.

- **Normal Goods**
  - The normal goods is one whose demand increases with rise in consumer income and demand decreases with decline in consumer income.
  - a consumer's demand for a normal good moves in the same direction as the income of the consumer
  - e.g. - electronics goods, organic food, clothes etc.
- **Inferior goods**
  - As the income of the consumer increases, the demand for an inferior good falls, and as the income decreases, the demand for an inferior good rises.
  - Examples of inferior goods include low quality food items like coarse cereals.
- **Veblen Goods**
  - A Veblen good is a good for which demand increases as the price increases.
  - Luxury goods, status symbol
  - e.g. - swiss wrist watches, wines, designer handbag, iphones etc.
  - They do not follow law of demand
- **Giffen Goods**
  - low income, non-luxury product for which demand increases as the price increases and vice versa
  - Poor man's good
  - Demand for Giffen goods is heavily influenced by a lack of close substitutes and income pressures.

Four Sectors of Economy

- Private Sector
- Government Sector
- Household Sector
- External Sector

Circular Flow of Income in economy

- It describes the movement of goods or services and income among the different sectors of the economy

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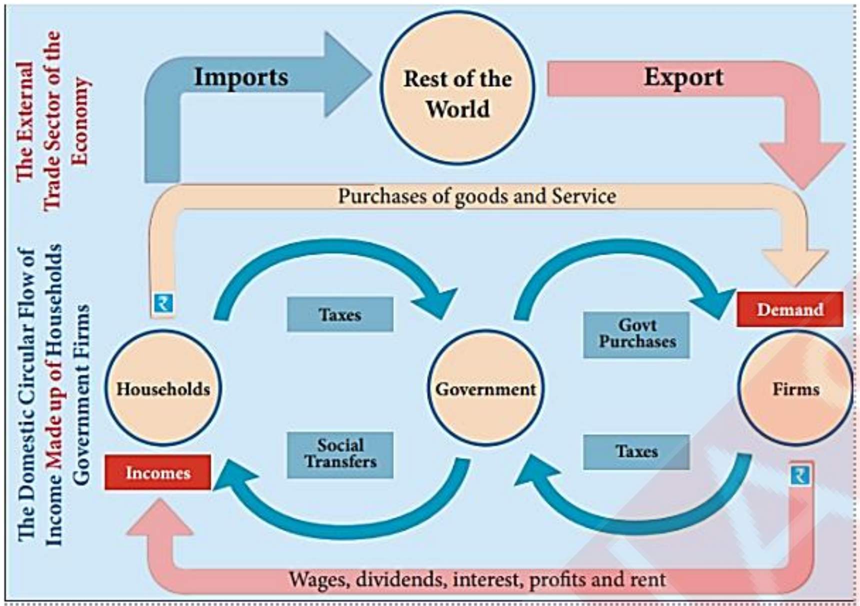

Fig – Circular Flow of Income in four sector economy

Methods of Measuring National Income

There are three methods that are used to measure National Income:

1. Production Method (Value added Method)
    - In this method, money value of aggregate output from all sectors of an economy in an year is calculated.
    - Value added by firm = value of production of the firm – value of intermediate goods used by the firm
    - Items not included in calculation – intermediate goods which are consumed in production process to avoid double accounting.
    - Items to be included – Production for Self-Consumption (consumption of self produced food grains by farmers)
2. Income method (Factor earning Method)
    - In this method, national income is calculated by adding up all the incomes (payment made to factors of production) generated in the course of producing national product.
    - It includes – Rent (land), Wages (labour), Interest (capital) & Profits (Enterpreneur)
    - Items not included in calculation – Transfer Payments, second hand goods, windfall gains such as lotteries, illegal income or black money.
    - Items to be included - Imputed value of rent for self occupied houses or offices is to be included.
3. Expenditure Method
    - In this method, GDP is calculated by adding spending done by four sectors of economy in purchasing goods and services.
    - GDP = C + G + I + (X-M)
        - C = Private Final consumption expenditure (by households)
        - G = Government Final consumption expenditure (by govt)
        - I = Private Investment Expenditure
        - X = Exports, M = Imports

- Items not included in calculation
    - Second hand goods
    - Purchase of shares and bonds in secondary market
    - Transfer Payments
    - Expenditure on intermediate goods

Few Concepts

- Factor Price & Market Price
    - Factor Price - Total cost of all factors of production (such as labour, capital, land etc.) used in producing goods or services. It is the price of the commodity from the producers side. It includes government subsidies.
    - Market Price – It is the price at which a product is sold in the market. It includes the cost of production in the form of wages, rent, interest, input prices, profit etc. It also includes the taxes imposed by the government. It excludes Government subsidy.
    - Market Price = Factor Price + Indirect Taxes – Subsidies
- Gross Vs Net
    - Factors of production undergo wear and tear (reduction in value of asset over time). This wear and tear is called Depreciation. A part of capital is used for this wear and tear which is not used in production of goods and services
    - Gross – Depreciation = Net
    - e.g. GDP – Depreciation = NDP

Various Macroeconomic Aggregates

- Gross Domestic Product (GDP)
    - GDP is the **total market value** of all the **final goods and services** produced **within the domestic territory of a country** for a given time period, normally a year.
        - Only 'final' goods and services (and not intermediate goods) are included in the calculation of GDP.
        - Domestic Territory of a country
            - political frontiers of the country including its territorial waters, ships, aircrafts, fishing vessels operated by the residents of the country, embassies and consulates located abroad etc.

Nominal GDP

- total market value of all the final goods and services produced within a country in a given period using that year's prices (also called "current prices").
- Nominal GDP at current prices = Final goods and services produced in an year * Prices of goods and services in that year
- It measures growth in value (quantity and price both)

Real GDP

- total market value of all the final goods and services produced within a country in a given period (Current year) using Base year's prices (also called "constant prices").
- It is inflation adjusted GDP
- It truly reflects the real change in physical output of a country

Potential GDP

- It is the real value of goods and services that can be produced when a country's factors of production are 'fully employed'.

- It is the maximum sustainable level of output that an economy can produce. When an economy is operating at its potential (trend), there are high levels of utilization of the labour force and the capital stock.

- Gross National Product (GNP)
  - GNP is the total market value of all the finished goods and services produced by the country's residents, irrespective of their location.
  - It measures the output/earnings made by Indian residents only whether in India or abroad. It does not include output/earnings made by foreign residents in India
  - GNP = GDP + Net Factor Income from abroad (NFIA)
    - NFIA = income earned by the domestic factors of production employed in the rest of the world – Factor income earned by the factors of production of the rest of the world employed in the domestic economy.
- Net National Product (NNP)
  - Factors of production under go wear and tear. This wear and tear is called Depreciation. A part of capital is used for this wear and tear which is not used in production of goods and services.
  - Net National Product (NNP) = Gross National Product (GNP) – Depreciation
  - NNP (@Factor Cost) = NNP (@Market Price) – Taxes + Subsidies
- Personal Income
  - Personal Income is the part of National Income which is received by the households.
  - Personal income (PI) ≡ NI – Undistributed profits – Net interest payments made by households – Corporate tax + Transfer payments to the households from the government and firms.
- Personal Disposable Income
  - income that is available to the households that they can spent as they wish.
  - Personal Disposable Income (PDI) = PI – Personal tax payments – Non-tax payments (such as fines etc.)
- National Disposable Income
  - National Disposable Income = Net National Product at market prices + Other current transfers from the rest of the world
- Per Capita Income
  - Per Capita Income = National Income/ Total Population
  - It is the average income of a person of a country in a particular year.

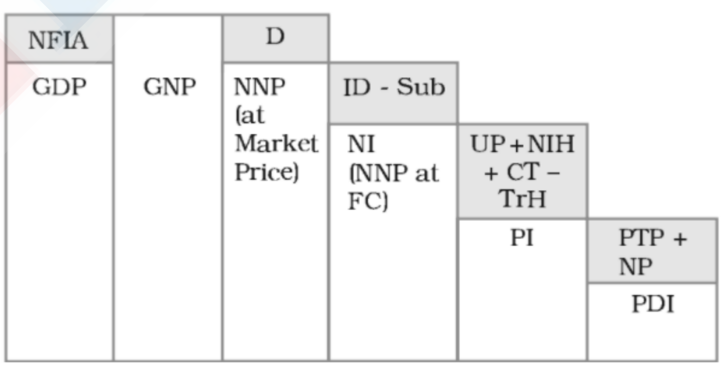

Fig - Diagrammatic representation of the subcategories of aggregate income.

Post 2015 changes in GDP calculation

Parameters	Pre 2015	Post 2015
Base Year	2004-05	2011-12
Database	Annual Survey of Industries (around 2 lakh industries)	MCA –21 (around 5 lakh industries)
GDP calculation	GDP at Factor cost	GDP at Market Price

Limitations of GDP as measurement of Economic growth

- Does not reflect economic inequality.
- Not a fair indicator of standard of living, Healthcare facilities, gender disparities etc
- does not take into account the economic value of the environment

Alternatives of GDP

- Human Development Index
- Gender Inequality Index
- Gross National Happiness Index
- Green GDP