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ENABLERS FOR SCORING CENTUM

XII STD

ECONOMICS STUDY MATERIAL

PART I

Prepared by,
S. Mohanasundaram,
P.G. Assistant in Economics,
Ranipettai district – 632 517
Cell No: 9486938878
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“Equanimity, hard work and intelligent time-management are the secrets of success”
# CHAPTER 1  INTRODUCTION TO MACRO ECONOMICS

**Introduction**
- the subject economics is classified into two branches
- micro and macro economics

**Ragnar Frisch**
- a Norwegian Economist
- won the first noble prize in economics science

**Coined the words**
- micro – meaning small
- macro – meaning large in the year 1933

**Macro Economics**
- its modern form began with John Maynard Keynes
- published in 1936

**Keynes**
- an explanation for fallout from the great depression
- when goods remained unsold and workers unemployed
- hence Keynes is regarded as the “Father of Modern Macro Economics”

**Meaning of Macro Economics**
- the word “Macro” is derived from the Greek word “Makros” meaning large

**Macro Economics**
- is the study of the economy as whole
- deal with aggregates such as national income, employment and output
- macro economics is also known as “Income theory”

**The subject matters**
- covered in macro economics are the areas
- employment, national income
- inflation, business cycle
- poverty, inequality
- saving and investment
- capital formation, infrastructural development
- international trade
- balance of trade and balance of payment
- exchange rate and economic growth
### Importance of Macro Economics

- Need for introducing a macro outlook
- There is a need to understand the functioning of the economy
- The aggregate level to evolve suitable strategies
- To solve the basic problems prevailing in an economy
- Understand the future problems
- Needs and challenges of an economy as a whole
- Important to evolve precautionary measures
- Macro economics provide ample opportunities
- To use scientific investigation
- To understand the reality
- Helps to make comparison analysis of economic indicators
- Better prediction future
- To formulate suitable policies
- To avoid economic crisis

### Scope of Macro Economics

- It covers the major areas as follows

#### National Income

- Measurement of national income and its composition by sectors
- The basic aspects of macro economic analysis
- The trends in national income and its composition provide
- Long term understanding of the growth process of an economy

#### Inflation

- Refers to steady increase in general price level
- Estimating the general price level
- By constructing various price index numbers
- Such as whole sale price index, consumer price index, etc., are needed

#### Business cycle

- Almost all economic face the problem of business fluctuations and business cycle
- Cyclical movements in the economy need to carefully studied based on aggregate
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic variable</td>
<td>- boom, recession, depression and recovery</td>
</tr>
<tr>
<td>Cyclical movements</td>
<td>- the major problems are poverty and unemployment</td>
</tr>
<tr>
<td></td>
<td>- this is one of the economic paradoxes</td>
</tr>
<tr>
<td></td>
<td>- a clear understanding about the magnitude of poverty and unemployment</td>
</tr>
<tr>
<td></td>
<td>- allocation of resources initiating corrective measures</td>
</tr>
<tr>
<td>Poverty and Unemployment</td>
<td>- development of an economy and factors determining them</td>
</tr>
<tr>
<td></td>
<td>- understand only through macro analysis</td>
</tr>
<tr>
<td>Economic growth</td>
<td>- macro economics is significant for evolving suitable economic policies</td>
</tr>
<tr>
<td></td>
<td>- economic policies are necessary to solve the basic problems</td>
</tr>
<tr>
<td></td>
<td>- to overcome the obstacles and to achieve growth</td>
</tr>
<tr>
<td>Economic Policies</td>
<td>- there is a danger a excessive generalisation of the economy as a whole</td>
</tr>
<tr>
<td></td>
<td>- it assumes homogeneity among the individual units</td>
</tr>
<tr>
<td></td>
<td>- there is a fallacy of composition</td>
</tr>
<tr>
<td></td>
<td>- what is good of an individual need not be good for nation and vice versa</td>
</tr>
<tr>
<td></td>
<td>- what is good for a country is not good for another country</td>
</tr>
<tr>
<td></td>
<td>- at another time</td>
</tr>
<tr>
<td></td>
<td>- many non – economic factors determine economic activities</td>
</tr>
<tr>
<td>Limitations</td>
<td></td>
</tr>
</tbody>
</table>

**Economy and its types**

The term economy has been defined by A.J. Brown as “a system by which people earn their living”

J.R. Hicks defined “an economy is a co – operation of producer and workers to make goods and services that satisfy the wants of the consumers”
Any economy referred - to any system or area where economic activities are carried out
- each economy has its own character
- functions or activities also vary

The fundamental economic activities - production and consumption
- these two activities are supported by several other activities
- the ultimate aim is to achieve growth

The exchange activity - supports the production and consumption activities

The major economic activities - include transportation, banking, advertising, planning, government policy

The major non-economic activities - environment, health, education, entertainment, regulation, etc.,

In addition to supporting activities, external activities are
- import, export, international relations, emigration, immigration, foreign investment, foreign exchange earnings, etc.,

Economics can be classified into different types based on:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>State of Development</td>
<td>Developed, underdeveloped, undeveloped and developing economies</td>
</tr>
<tr>
<td>System of Activities</td>
<td>Capitalistic, Socialistic and mixed economies</td>
</tr>
<tr>
<td>Scale of Activities</td>
<td>Small and large economies</td>
</tr>
<tr>
<td>Nature of Functioning</td>
<td>Static and dynamic economies</td>
</tr>
<tr>
<td>Nature of operation</td>
<td>Closed and Open economies</td>
</tr>
<tr>
<td>Nature of advancement</td>
<td>Traditional and modern economies</td>
</tr>
<tr>
<td>Level of National Income</td>
<td>Low income, middle income and high income economies</td>
</tr>
<tr>
<td>Economic systems</td>
<td>refers to the manner in which individuals</td>
</tr>
</tbody>
</table>
and institutions are connected together - it is the methodology of doing economic activities to meet the needs of the society.

There are three major types:
- Economic systems
  - Capitalist Economy – Capitalism
  - Socialist Economy – Socialism
  - Mixed Economy – Mixedism

Globalism:
- The term coined by Manfred D. Steger-2002
- Connects nations together through international trade
- Aiming at global development
- This ideology is also termed as “extended capitalism”

Capitalism and socialism:
- Two extreme and opposite approaches

Capitalism:
- There is total freedom and private ownership of means of production

Socialism:
- There is no freedom for private
- There is public ownership of means of production

Mixedism:
- Denotes the co-existence of capitalism and socialism

Capitalist Economy:
- Adam Smith is the “Father of Capitalism”
- Capitalist economy is also termed as a free economy
- Laissez faire in Latin word
- Market economy where the role of the government is minimum and market determines the activities

The means of production:
- In a capitalistic economy and privately owned
- Manufacturers produce goods and services with profit motive

The USA, West Germany, Australia and Japan:
- Are best examples for Capitalist Economies
- Large scale social welfare measures to
Features of Capitalist Economy

Private ownership of property and law of inheritance
- The basic features of capitalism is that all resources namely land, capital, machines, mine, etc., are owned privately.
- The property can be transferred to heirs after death.

Freedom of choice and enterprises
- Each individual is free to carry out any occupation or trade at any place and produce any commodity.
- Consumers are free to buy any commodity as per their choice.

Profit Motive
- Profit is the driving force.
- Each individual and organization ensure high profit.

Advance technology
- Division of labour and specialization are followed.

The golden rule
- Producer under capitalism is “to maximize profit”.

Free competition
- Both product and factor market.
- The government or any authority cannot prevent from buying or selling.
- In the market.
- There is competition between buyers and sellers.

Price Mechanism
- Is the heart of any capitalist economy.
- All economic activities regulated through price mechanism.
- I.e. Market forces of demand and supply.

Role of Government
- Price mechanism regulates economic activity.
- Government has a limited role.
The government provides basic services - such as defence, public wealth, education, etc.

Inequalities of Income - two classes have and have nots - haves - that is those who own property - have nots - who do not own property and work for their living - rich become richer - poor become poorer - here economic inequality goes on increasing

Merits of Capitalism

Automatic working - without any government intervention

Efficient use of resources - are put into optimum use

Incentives for hardwork - encouraged and entrepreneurs get more profit for more efficiency

Consumers sovereignty - all production activities are aimed at satisfying the consumer

Higher rates of capital formation - increase in saving and investment

Development of new technology - profit is aimed at producers invest on new technology and produce quality goods

Demerits of Capitalism

Concentration of wealth and income - few hands and thereby increases inequalities of income

Wastages of resources - large amount of resources are wasted on competitive advertising and duplication of products

Class struggle - capitalism leads to class struggle as it divides the society into capitalist and workers

Business cycle - free market system leads to frequent violent economic fluctuations and crises

Socialist economy - the father of socialism is Karl Marx

Socialism refers - to a system of total planning public ownership and state control on economic
Socialism is defined as a way of organizing a society in which major industries are owned and controlled by the government.

A socialist economy is also known as “Planned Economy” or “Command Economy.” All the resources are owned and operated by the government. Public welfare is the main motive behind all economic activities.

It aims at equality in the distribution of income and wealth and equal opportunity for all.

Russia, China, Vietnam, Poland and Cuba are examples of socialist economies.

**What, How, Whom to produce**
- Completely determined and controlled by a central authority.

**Features of Socialism**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public ownership of means of production</td>
<td>All resources are owned by the government. It means that all the factors of production.</td>
</tr>
<tr>
<td>Central planning</td>
<td>Is an integral part of socialist economy. All decision are undertaken by the central planning authority.</td>
</tr>
<tr>
<td>Maximum social benefit</td>
<td>Social welfare is the guiding principle behind all economic activities. Investments are planned in such a way that the benefits are distributed to the society at large.</td>
</tr>
<tr>
<td>Non-existence of competition</td>
<td>There is absence of competition in the market. State has full control over production and distribution. Consumers will have a limited choice.</td>
</tr>
<tr>
<td>Absence of price mechanism</td>
<td>The pricing system works under the control and regulation of the central planning authority.</td>
</tr>
</tbody>
</table>
| Equality of Income                                           | - another essential feature of socialism  
|                                                           | - removal and reduction of economic inequalities  
|                                                           | - private property and the law of inheritance do not exist  
| Equality of opportunity                                     | - socialism provide equal opportunity  
|                                                           | - free health, education and professional training  
| Classless society                                           | - no class conflicts  
|                                                           | - in a true socialist society everyone is equal as far as economic status  

**Merits of Socialism**

| Reduction of inequalities                                   | - no one is allowed to own and use private property to exploit others  
| Rational allocation of resources                           | - the central planning authority allocates the resources in a planned manner  
|                                                           | - wastages are minimised and investments are made in a pre planned manner  
| Absence of class conflicts                                 | - as inequalities are minimum  
|                                                           | - there is no conflict between rich and poor class  
|                                                           | - society functions in a harmonious manner  
| End of trade cycles                                        | - planning authority takes control over production and distribution of goods and services  
|                                                           | - therefore economic fluctuations can be avoided  
| Promotes social welfare                                    | - absence of exploitation  
|                                                           | - reduction of economic inequalities  
|                                                           | - avoidance of trade cycles  
|                                                           | - increase in productive efficiency help to promote social welfare  

**Demerits of Socialism**

| Red Tapism and Bureaucracy                                 | - as decision are taken by government agencies, approval of many officials and movement take time lead  

<table>
<thead>
<tr>
<th>Economic Systems</th>
<th>Description</th>
</tr>
</thead>
</table>
| Socialist          | - Communism  
                      -Pure planned economy  
                      -Example – North Korea, China, Venezuela |
| Capitalist         | -Pure competition  
                      -Pure free market economy  
                      -Example – France, Sweden, USA, Japan |
| Mixed Economics    |                                                                            |
| Mixedism           | -Socialist learning  
                      -Capitalist learning |
| Mixed Economy      | -System both private and public sectors co-exist  
                      -Work together towards economic development  
                      -It is a combination of both capitalism and socialism  
                      -Eliminate the evils of both capitalism and socialism  
                      -In these economies resources are owned by individuals and the government  
                      -Example: India, Brazil |
### Features of Mixed Economy

- **Ownership of property and means of production**
  - owned by both private and public
  - public and private have right to purchase, use or transfer their resources

- **Co-existence of public and private sectors**
  - private industries undertake activities primarily for profit
  - public sector firms are owned by the government
  - to maximise social welfare

- **Economic planning**
  - the central planning authority prepares the economic plans
  - national plans are drawn up by the government
  - both private and public sectors abide
  - in general, all sectors of the economy function according to the objectives, priorities and targets laid down

- **Solution of economic problems**
  - the basic problems of what to produce, how to produce, from whom to produce, how to distribute are solved through the price mechanism as well as state intervention

- **Freedom and control**
  - through private has freedom to own resources
  - produce goods and services
  - distribute the same
  - overall on the economic activities rests with the government

### Merits of Mixed Economy

- **Rapid economic growth**
  - the best advantages of mixed economy
  - thus, both public requirements and private needs are taken care of

- **Balanced economic growth**
  - mixedism promotes balanced growth
  - it promotes balanced growth balanced agriculture and industry
  - consumer goods and capital goods
  - rural and urban etc
| Proper utilization of resources | - the government can ensure proper utilization of resources  
|                                | - the government controls most of the important activities directly  
|                                | - private sector indirectly |
| Economic equality              | - the government uses progressive rates of taxation  
|                                | - levying income tax to bring about economic equality |
| Special advantages to the society | - the government safeguards the interest of the workers and weaker sections  
|                                | - by legislating on minimum wages and rationing  
|                                | - establishing fair price shops and formulating social welfare measures |
| Demerits of Mixed Economy      |                                                                 |
| Lack of Co – ordination        | - the greatest drawback of mixedism is lack of co-ordination  
|                                | - between public sector and private sector  
|                                | - both work with divergent motives  
|                                | - it creates many co-ordination related problems |
| Competitive attitude           | - both government and private sectors  
|                                | - should work with a complementary spirit towards welfare of the society  
|                                | - but in reality they are competitive in their activities |
| Inefficiency                   | - most of the public sector enterprises remain inefficient  
|                                | - due to bureaucracy, red tapism and lack of motivation |
| Fear of Nationalization        | - discourages the private entrepreneur in their business operations  
|                                | - innovative initiatives |
Widening inequality - ownership of resources laws of inheritance and profit motive - people widens the gap between rich and poor

**Features of Capitalism**

- Ownership means of production: private
- Economic Motive: profit
- Solution of central problems: free market system
- Government Role: internal regulation only
- Income determination: unequal
- Nature of enterprise: private
- Economic freedom: complete
- Major problem: inequality

**Features of Socialism**

- Ownership means of production: public
- Economic Motive: social welfare
- Solution of central problems: central planning systems
- Government Role: complete involvement
- Income determination: equal
- Nature of enterprise: government
- Economic freedom: lack of freedom
- Major problem: inefficiency

**Features of Mixedism**

- Ownership means of production: both private and public ownership
- Economic Motive: social welfare and profit motive
- Solution of central problems: central planning system and free market system
- Government Role: limited role
- Income determination: less unequal
- Nature of enterprise: both private and state
- Economic freedom: limited
- Major problem: inequality and inefficiency

**Concept of Macro Economics**

- Stock and flow variables: variables used in economic analysis are classified as stock and flow - both stock and flow variables may increase
<table>
<thead>
<tr>
<th>Stock</th>
<th>refers to a quantity of a commodity measured at a point of time</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Macro Economics</td>
<td>money supply, unemployment level, foreign exchange, reserve capital, etc</td>
</tr>
<tr>
<td>Flow variables</td>
<td>measured over a period of time</td>
</tr>
<tr>
<td></td>
<td>national income, imports, exports, consumption, production, investment, etc</td>
</tr>
<tr>
<td>Economic models</td>
<td>simplified representation of real situation</td>
</tr>
<tr>
<td></td>
<td>to describe economic activities</td>
</tr>
<tr>
<td></td>
<td>relationship and their behaviour</td>
</tr>
<tr>
<td></td>
<td>most economic models are built with mathematics, graphs and equations to explain relationships between economic variables</td>
</tr>
<tr>
<td>The commonly used economic models</td>
<td>the supply-demand models and circular flow models and smith models</td>
</tr>
<tr>
<td>Circular flow of income</td>
<td>is a model of an economy showing connections between different sectors of an economy</td>
</tr>
<tr>
<td></td>
<td>it shows flow of income, goods and services and factors of production between economic agents</td>
</tr>
<tr>
<td>Economic agents</td>
<td>such as firms, households, government and nations</td>
</tr>
<tr>
<td>The circular flow analysis</td>
<td>is the basis of national accounts and macro economics</td>
</tr>
<tr>
<td>There are three models</td>
<td>circular flow of income representing the major economic systems</td>
</tr>
<tr>
<td></td>
<td>two sector model</td>
</tr>
<tr>
<td></td>
<td>three sector model</td>
</tr>
<tr>
<td></td>
<td>four sector model</td>
</tr>
<tr>
<td>Two sector model</td>
<td>simple economy with household and firms</td>
</tr>
</tbody>
</table>
Three sector model - mixed and closed economy with households, firms and government

Four sector model - are open economy with households, firms, government and rest of the world (external sector)

Circular flow of income in two sector economy - two sectors namely household and firm sector

Household sector - is the sole buyer of goods and services - the sole supplier of factors of production - it spends its entire income on the purchase goods produced by the business sector - the household sector receives income from firm sector

Firms - revenue from by selling goods and services to household sector - it hires the factors of production owned by the household sector

Two sector economy - production and sales are equal - there will be a circular flow of income of goods

The outer circle - represents real flow (factors and goods)

The inner circle - represents the monetary flow (factors prices and commodity prices)

Real flow - indicates the factor services flow from household sector to the business sector - goods and services flow from business sector the household

Two sector economy - \( Y = C + I \) - where \( Y \) is Income - \( C \) is consumption - \( I \) is investment
Circular flow of income in three sector economy

- in addition to household and firms and government sector
- purchase goods and services from firms
- receive factors of production from household sector

Government also makes

- social transfers such as pension, relief, subsidies households
- pays the firms for the purchases of goods and services

Three forces

- \( Y = C + I + G \)
- three sector model

Circular flow of income in a four sector economy

- in addition to household, firms and government, fourth sector namely external sector
- the external sector comprises exports and imports
- \( Y = C + I + G + (X - M) \)
- \( C + I + G \) domestic expenditure
- \( X - M \) net exports
CHAPTER 2 NATIONAL INCOME

National income
-measure of the economic activities of a nation
-it denotes the country’s purchasing power
-the growth of an economy is measured by its real national income grows

National income serves
-as an instrument of economic planning

National income
-one of the most significant macro economic variables

Nobel laureate
-Simon Kuznets
first introduced the concept of national income

National income
-means the total money value of all final goods and services produced in a country during a particular period of time (one year)

Simon Kuznets
-Creator of GDP 1932

Basic concepts of National Income

Gross domestic product
-is the total market value
-of final goods and services
-produced within the country during the year
-calculated at market prices
-is known as GDP at market prices

GDP by expenditure
-method at market prices = C + I + G + (X – M)
-C = Consumption goods
-I = Investment goods
-G = Government purchases
-X = Exports; M = Imports
-(X – M) is net export which can be positive or negative

Net Domestic product (NDP)
-is the value of net output of the economy during the year
-country’s capital equipment wear out or become outdated
-each year during the production process

Net Domestic product
-GDP – Depreciation
Gross National Product (GNP) - is the total measure of the flow of final goods and services - at market value resulting from current production in a country during a year - including net income from abroad GNP includes five types of final goods and services

1. Consumption (C)
2. Gross Investment (I)
3. Goods and services produced (or) purchased by the government (G)
4. Net exports of goods and services, ie. the difference between value of export and import of goods and services known as (X – M)
5. Net factor income from abroad - which refers to difference between factor income received from abroad - factor incomes paid to the foreign residents for factor services by them in the domestic territory

- GNP at market prices means the gross value of final goods and services + Net factor income from abroad C + I + G + (X – M) + (R – P)
- GNP at market price = GDP at market prices + Net factor income from abroad

Net national product (NNP) at market prices - refers to the value of the net output of the economy during the year - NNP is obtained by deducting the value of depreciation (or)
- replacement allowance of the capital assets from the GNP

It is expressed as

- NNP = GNP – Depreciation allowance
  (Depreciation is also called Capital consumption allowance)

NNP at factor cost - refers to the market value of output - NNP at factor cost is the total of income
payment made to factors of production
-money value of NNP at market price, we deduct the amount of indirect taxes and subsidies to arrive
-at the Net National Income at factor cost
-NNP at factor cost = NNP at market prices – (Indirect taxes + Subsidies)

Personal Income
-is the total income received by the individuals of a country from all sources before payment of direct taxes in a year

Personal income
-is near equal to the national income
-Personal income = National Income – (Social security contribution and undistributed corporate profits) + Transfer payments

Disposable income
-is also known as disposable personal income
-it is the individuals income after the payment of income tax
-this is the amount available for household for consumption
-Disposable Income = Personal Income – Direct tax
-as the entire disposable income is not spent on consumption
-Disposable Income = Consumption + Saving

Percapita Income
-the average income of a person of a country in a particular year is called percapita income
-percapital income is obtained by dividing

Percapita Income
= \frac{\text{National Income}}{\text{Population}}

Real Income
-nominal income is national income
-expressed in terms of a general price level of a particular year
-is the buying power of nominal income
National income is the final value of goods and services - produced and expressed in terms of money at current prices

Real income derived as follows
National Income at Constant price = National Income at current price \( \div \frac{P_1}{P_0} \)
- \( P_1 \) – Price Index during current year
- \( P_2 \) – Price Index during base year

GDP deflator - is an index of price changes of goods and services included in GDP
- it is a price index which is calculated by dividing the nominal GDP in a given year by the real GDP for the same year and multiplying in by 100
- GDP deflator = \( \frac{\text{Nominal GDP} \times 100}{\text{Real GDP}} \)

Methods of measuring national income - All goods and services produced in the country must be counted and converted against money value during year
- whatever is produced in either used for consumption or saving
- national output can be computed at any of three levels
- viz. production, income and expenditure

Accordingly three methods
- 1. Production or value added method
- 2. Income method or Factor earning method
- 3. Expenditure method

The following equation must hold
- Output = Income = Expenditure

GDP expenditure - consumption
- government spending
- investment spending
- change in value of stocks
- exports
- imports
- GDP (Known as aggregate demand)

GDP factor income
- income from people in jobs and in self employment eg. wages and salaries
- profit of private sector business
- rent income from the ownership of land

GDP value of output
- value added from each of the main economic sectors
- these sectors are
- primary
- secondary
- manufacturing
- quaternary

Because the three methods
- are circular in nature
Product method
- measures the output of the country
- it is also called inventory method

Gross value of output
- from different sectors like agriculture, industry trade and commerce etc.
- is obtained for the entire economy during a year
- the value obtained is actually the GNP at market prices
- to avoid double counting
- the value of the final product
- is derived by the summation of all the value added in the productive process
- to avoid double counting
- either the value of the final output should be taken estimate of GNP
- or the sum of values added should be taken

In India, the gross value of the farm output is obtained
- total production of 64 agriculture commodities is estimated
The output of each crop is measured by multiplying the areas own by the average yield per hectare. The total output of each commodity is valued at market price. The aggregate value of total output measures the gross value of agricultural output. The net value of the agricultural output is measured by making deductions for the cost and depreciation from the gross value.

Precautions
- The product method is followed in the underdeveloped countries.
- But it is less reliable because the margin of error in their method.
- In India, this method is applied to agriculture, mining and manufacturing including handicrafts.
- Double counting is to be avoided under value added method.
- Raw material or intermediate goods for the final production should not be included e.g. cloth.
- The value of output used self consumption should be counted while measuring national income.
- In the case of durable goods, sale and purchase of second hand goods should not be included.

Income method
- Factor earning method.
- This method approaches national income from the distribution side.
- National income is calculated by adding up all the income generated.

Steps involved
The enterprises are classified into various industrial groups.

Factor incomes are grouped under labour income, capital income, mixed income.

Labour income
- Wages, salaries, fringe benefits, employer’s
contribution to social security

Capital Income

- profit, interest, dividend or royalty

Mixed income

- farming, sole proprietorship and other professions

National income

- is calculated as domestic factor income plus net factor incomes from abroad

\[ y = w + r + i + \pi + (R - P) \]

- \( w \) = wage; \( r \) = rent; \( i \) = interest; \( \pi \) = profits;
- \( R \) = exports; \( P \) = imports

- this method is adopted for estimating the contribution of the remaining sectors
- income from abroad are obtained from the account of the balance of the country

Precautions

Items not to be included

- transfer payments are not be included in estimations of national income
- these payments are not received for any services provided in the current year
- such as pension, social, insurance, etc.
- the receipts from the sale of second hand goods should not be treated as a part of national income
- windfall gains such as lotteries are also not be included
- corporate profit tax should not be separately included

Items to be included

- imputed value of rent for self occupied houses or offices
- imputed value of services provided by owners of production units

The Expenditure method

- outlay method
- the total expenditure incurred by the society in a particular year is added together
- it includes personal consumption expenditure, net domestic investment, government
expenditure on consumption as well as capital goods and net exports

\[ \text{GNP} = C + I + G + (X - M) \]

- \( C \) = Private consumption expenditure
- \( I \) = Private investment expenditure
- \( G \) = Government expenditure
- \( X - M \) = Net exports

<table>
<thead>
<tr>
<th>Precautions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Second hand goods</td>
<td>expenditure on second hand goods should not be included</td>
</tr>
<tr>
<td>Purchase of shares and bonds</td>
<td>in the secondary market should not be included</td>
</tr>
<tr>
<td>Transfer payment</td>
<td>old age pension should not be included</td>
</tr>
<tr>
<td>Expenditure on intermediate goods</td>
<td>expenditure on seeds and fertilizers by farmers, cotton and yarn by textile industries not to be included to avoid double counting only expenditure on final product are to be included</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor cost</th>
<th>there are number of inputs are included into production process</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>land, labour, capital and entrepreneurship</td>
</tr>
<tr>
<td></td>
<td>incur a cost for using these factors of production</td>
</tr>
<tr>
<td></td>
<td>these costs are ultimately added onto the price of the product</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The factor cost refers to</th>
<th>the cost of production that is incurred by a firm when producing goods and services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>cost of renting machine, purchasing machinery and land, paying salaries and wages, cost of obtaining capital, and the profit margins added by the entrepreneur</td>
</tr>
</tbody>
</table>
The factor cost does not include -the taxes that are paid to the government -taxes are not directly involved in the production process -not part of the direct production cost

Subsidies received -included in the factor cost as subsidies are direct inputs into the production

Market price -once goods and services are produced they are sold -in a market place at a set market price -is the price that consumers will pay -when they purchase it from the sellers

Taxes charged -by the government will be added on the factor price

Subsidies -provided will be reduced from the factor price to arrive at the market price

\[ \text{MP} = \text{FC} + \text{Indirect taxes} - \text{Subsidies} \ldots \text{Equation 1} \]
\[ \text{FC} = \text{MP} - \text{Indirect taxes} + \text{Subsidies} \ldots \text{Equation 2} \]

National income (NNP\(_{\text{FC}}\)) =Gross value added by all the production enterprises within the domestic territory of the country – Depreciation – Net indirect taxes + Net factor income from abroad (or)

Value of output = Price X Quantity sold

GDP\(_{\text{MP}}\) =Private final consumption + Government final consumption expenditure + Gross domestic capital formation + Net exports

Importance of National Income analysis -National income is of great importance for the economy of a country -national income is regarded as accounts of the economy -which are known as social accounts -to know the relative importance of the various
sectors of the economy and their contribution
-to formulate the national policies such as monetary policy, fiscal policy and other policies
-to formulate planning and evaluate plan progress
-to build economic models both in short – run and long – run
-to make international comparison inter – regional comparison and inter – temporal comparison of growth
-to know a country’s per capita income which reflects the economic welfare of the country
-to know the distribution of income for various factors of production in the country
-to arrive at many macro economic variables namely tax – GDP ratio current account Deficit – GDP ratio, Fiscal deficit – GDP ratio Debt – GDP ratio, etc.

Difficulties in measuring national income
- Transfer payment
- difficulties in assessing depreciation allowance
- unpaid services
- income from illegal activities
- production for self – consumption and changing price
- capital gains
- statistical problems

Transfer payments
-form of pensions, unemployment allowance, subsidies, etc.
-these are government expenditure
-they are not included in the national income
-because they are paid without adding anything to the production processes
-interest on national debt is also considered transfer payments
-past savings without any productive work
Difficulties in assessing depreciation allowance
- accidental damages, repair and replacement charges from the national income is not an easy task

Unpaid services
- a housewife renders a number of useful services not paid for them

Income from illegal activities
- like gambling, smuggling, illicit extraction of liquor, etc. not included in national income

Production for self – consumption and changing price
- farmers keep a large portion of food and other goods produced on the farm for self consumption
- product method is measured by the value of final goods and services at current market prices
- price do not remain stable
- they rise or fall
- calculate the real national income at a constant price index

Capital gains
- capital asset such as a house, other property, stocks or shares, etc.
- sold at higher price than was paid for it at the time of purchase
- capital gains are excluded from national income

Statistical problems
- to avoid double counting
- accurate and reliable data are not adequate
- farm output in the subsistence sector is not completely informed
- different languages, customs create computing estimates
- people in India are different to the official inquiries
- most of the statistical staff are untrained and inefficient
National income estimates outside the country are not very accurate or adequate. There is at least a 10% margin of error in underestimated or overestimated GDP estimates for India, which varies from 2 trillion US dollars to 5 trillion US dollars.

### National Income and social accounting

National income is also being measured by the social accounting method. The social accounting framework is useful for economists as well as policy makers. It represents the major economic flows and various sectors of the economic systems.

### Social accounting and sector

The economy is divided into several sectors:

- **Firms**: Undertake productive activities and employ factors of production to produce goods and services.
- **Households**: Consuming entities and represent the factors of production. They receive payment from firms and spend money incomes received on the goods and services produced by the firms.
- **The government sector**: Public bodies at all levels of the government, including the national government, state governments, and local governments, in their work concerning social accounting.
- **Edey and Peacock**: Defined government as a collective “person” that purchases goods and services from firms. These purchases may be financed through taxation, public borrowing, or any other fiscal means.
- **Social goods**: The main function of the government includes defense, public health, education, etc.
Rest of the world sector - relates to international economic transactions of the country

Capital sector - refers to saving and investment activities
- it included the transaction of bank, insurance corporations, financial houses, other agencies of the money market
- these are not included under “firms”
- these agencies provide financial assistance to the firm activities

Sectoral contribution to GDP - the economy is divided into three namely, primary, secondary and tertiary sectors

National income and welfare

National income - is considered as indicator of the economic well being of a country

The economic progress of countries - is measured in terms of their GDP per capita and their annual growth rate

A country with a higher per capita income - is supposed to enjoy greater economic welfare and higher standard of living

Limitations - composition of goods and services not favour economic welfare
- ex. greater the proportion of capital goods over consumer goods
- improvement in economic welfare will be lesser

Higher GDP - greater environmental hazards such as air, water and soil pollution will be little economic welfare
- the production of was goods not welfare
- employment of children not promote economic welfare

| Physical Quality of Life Index (PQLI) | - better indicator of economic welfare
|   | - it includes standard of living, life expectancy at birth and literacy

| National income and erosion of national wealth | - higher GDP, larger natural resources are being depleted or damaged

| National income in terms of US $ | - the former looks very low
|   | - if Purchasing Power Parity (PPP) method is adopted India looks better

| Social environment cost | - considered while enumerating national income

| Personal income | - total income received by the individuals of a country before payment of direct taxes

| Capital sector | - it includes saving and investment activities

| Social accounts | - national income considering the social cost generated by economic activities

| Transfer payments | - government makes payments in the form of pensions, unemployment allowance, subsidies, etc. |
CHAPTER 3 THEORIES OF EMPLOYMENT AND INCOME

Unemployment - is the most vexing

Both Classical economists and Keynes - have explained the relationship between employment and income

The classical economists - great faith in the law of markets - articulated by J.B. Say - the French economist

J.M. Keynes - greatest and most influential economists of the mid 20th century

Meaning of full employment - refers to a situation in which every person willing to work - at the prevailing wage rate is employed

Keynes defines - full employment as the absence of involuntary unemployment

Lerner defines - that level of employment at which any further increase in spending would result in inflationary of wages and prices

Full employment equilibrium - efficiently employed to achieve maximum level of output

Concept of full employment - generally refers to full employment of labour force of a country

Unemployment and its types

Unemployment - who are willing to work and able to work but cannot find suitable jobs

India’s rural economy - both unemployment and underemployment
The major features of rural unemployment -existence of unemployment in the form of disguised unemployment and seasonal unemployment

In India -frictional, structural and open unemployment exist in urban areas

**Types of unemployment**

In India -nature of unemployment is different from developed countries

Developing countries -largely structural unemployment -which is due to slow rate of capital formation

Developed countries -the unemployment is purely temporary or cyclical or frictional

**Types of unemployment**

- Cyclical unemployment -Seasonal unemployment -Frictional unemployment -Educated unemployment -Technical unemployment -Structural unemployment -Disguised unemployment

Cyclical unemployment -exists during the downturn phase of trade cycle -during period of recession and depression, income and output fall -leading to widespread unemployment -its caused deficiency of effective demand -cyclical unemployment can be caused by public investment or expansionary monetary policy

Seasonal unemployment -during certain seasons of the year -Ex: agriculture and agro based industries -therefore people may remain unemployed during off season -happens from demand side also
<table>
<thead>
<tr>
<th>Type of Unemployment</th>
<th>Description</th>
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<tbody>
<tr>
<td>Frictional unemployment</td>
<td>Temporary unemployment that arises due to imbalance between supply of labour and demand for labour</td>
</tr>
<tr>
<td>This is because</td>
<td>Immobility of labour, lack of necessary skills, break down of machinery, shortage of raw materials, etc.</td>
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<tr>
<td></td>
<td>Lose jobs and search of jobs are also included under frictional unemployment</td>
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<tr>
<td>Educated unemployment</td>
<td>Qualification does not match the job</td>
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<tr>
<td></td>
<td>Faulty education system</td>
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<td></td>
<td>Lack of employable skills</td>
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<td></td>
<td>Mass student turnout</td>
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<tr>
<td></td>
<td>Preference for white collar jobs</td>
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<tr>
<td>Technical unemployment</td>
<td>Capital intensive requires less labourers</td>
</tr>
<tr>
<td></td>
<td>Technological unemployment</td>
</tr>
<tr>
<td></td>
<td>Invention and innovations lead to adoption of new techniques</td>
</tr>
<tr>
<td></td>
<td>Existing workers are retrenched</td>
</tr>
<tr>
<td></td>
<td>Labour saving devices are responsible for technological unemployment</td>
</tr>
<tr>
<td>Structural unemployment</td>
<td>To drastic change in the structure of the society</td>
</tr>
<tr>
<td></td>
<td>Lack of demand for the product (or)</td>
</tr>
<tr>
<td></td>
<td>Shift in demand to other products cause this type of unemployment</td>
</tr>
<tr>
<td></td>
<td>Unemployment results from massive and deep rooted changes in economic structure</td>
</tr>
<tr>
<td>Disguised unemployment</td>
<td>When more people are there than what is actually required</td>
</tr>
<tr>
<td></td>
<td>Even if some workers are withdrawn</td>
</tr>
<tr>
<td></td>
<td>Production does not suffer</td>
</tr>
<tr>
<td></td>
<td>This type of unemployment is found in agriculture</td>
</tr>
<tr>
<td></td>
<td>A person contribution to output is less than what he can produce by working for normal</td>
</tr>
</tbody>
</table>
Situation
- Marginal productivity of labour is zero or less or negative

Classical theory of unemployment
- different views of classical economists
- on the issue of income and employment in the economy

Adam Smith wrote the book
- “An enquiry into the nature and causes of the wealth of nations” in 1776

Classical theory was developed by
- David Ricardo, J.S. Mill, J.B. Say and A.C. Pigou

Classical economists assumed
- economy operates at the level of full employment
- without inflation in the long period

They also assumed
- wages and price of goods were flexible
- competitive market existed in the economy (laissez – faire economy)

Say’s law of market
- Jean Baptiste Say (1767-1832)
- French economist and an industrialist
- Core of the classical theory of employment
- he was influenced by the writing of Adam Smith and David Ricardo

J.B. Say enunciated the proposition that
- “Supply creates its own demand”
- Hence there cannot be general over production (or)
- the problem of unemployment in the economy

According to Say
- when goods are produced by firms in the industry
- they pay reward to the factors of production
- the households after receiving rewards of the factors of production
- spend the amount on the purchase of goods
and services produced by them
- each product produced in the economy creates demand equal to its value in the market

Classical theory explains
- A person receives his income from production which is spent on the purchase of goods and services produced by others

For the economy as a whole
- therefore “total production equal total income”

Ex ante and Ex post in Say’s law
- the statement that supply creates own demand (or) equivalently that the aggregate investment equals the aggregate saving always hold good in the ex post sense since it is simply an accounting identity

Say’s law of markets
- however states that these two are equal in ex ante sense
- the total quantity which people produce
- ie. aggregate supply must be equal to the total quantity which they plan to buy
- ie. aggregate demand

Assumptions of the Say’s law of market
- No single buyer or seller of commodity or an input can affect price
- full employment
- people are motivated by self interest
- it determines economic decisions

The laissez faire policy
- is essential for an automatic and self adjusting process of full employment equilibrium
- market forces determine everything right

Perfect competition
- in labour and product market
- there is wage-price flexibility
- money acts only as a medium of exchange
- long run analysis
- there is no possibility for over production or unemployment
### Implications of Say’s law

- There is no possibility for overproduction or unemployment.
- Unutilized resources used in the economy.
- It is profitable to employ them up to the point of full employment.
- Willing to accept rewards on a par with their productivity.

### As automatic price mechanism

- Operates in the economy.
- There is no need for government intervention.

### Interest flexibility

- Brings about equality between saving and investment.

### Money performs

- Only the medium of exchange function in the economy as people will not hold idle money.

### Criticism of Say’s law

**According to Keynes**

- Supply does not create its demand.
- It is not applicable where demand does not increase as much as production increases.
- Automatic adjustment process will not remove unemployment.
- Unemployment can be removed by increase in the rate of interest.
- Money is not neutral.

**Individual hold**

- Money for unforeseen contingencies.
- While business keep cash reserve for future activities.
Say’s law - is based on the proposition that supply creates its own demand
- there is no over production
- Keynes said that over production is possible
- Keynes regards full employment as a special case
- because there is under employment in capitalist economies

The need for state intervention - in the case of general over production and mass unemployment

Keynes theory of employment and income - the general theory of employment, interest and money
- published in 1936

Highly significant work - turning point in the development of modern economic theory

The theory of Keynes - against the belief of classical economists that the market forces
- in capitalist economy adjust themselves to attain equilibrium

Keynes - not only criticized classical economists but also advocated his own theory of employment

Keynes theory - was a general theory as it tried to explain all types of situations
- i.e. not only equilibrium level of employment but also the concept of full employment as well as possibility of under employment

Keynes theory of employment - was based on the view of the short run

According to him - the factors of production such as capital goods, supply of labour, technology and
efficiency of labour unchanged while determining the level of employment

John Maynard Keynes - most influential economists of the 20th century
- he was born in Cambridge in 1883
- Civil servant, a director of the Bank of England
- leader of British delegation of negotiators at the Bretton Woods Conference

Economic theory based - idea is known as Keynesian economics
- particularly in the field of macro economics

Effective demand

The starting point of Keynes theory of employment and income is the principle of effective demand

Effective demand - denotes money actually spent by the people on products of industry
- entrepreneurs receive is paid in the form of rent, wage, interest and profit
- therefore effective demand equal national income

An increase in the aggregate effective demand - increase the level of employment

A decline in total effective demand - lead to unemployment

Total employment - determined total demand of country

According to Keynes - theory of employment “effective demand signifies the money spend on consumption of goods and services and on investment”

The total expenditure - is equal to the national income, which
The relationship between employment and output of an economy depends upon the level of effective demand which is determined by the forces of aggregate supply and aggregate demand. 

$$ED = Y = C + I = \text{Output} = \text{Employment}$$

Effective demand determines the level of employment in the economy. When effective demand increases, employment will increase. When effective demand decreases, the level of employment will decrease.

The effective demand will be determined by two determinants namely consumption and investment expenditure.

The consumption function depends upon income of the people and marginal propensity to consume. According to Keynes, if income increases, consumption will also increase but by less than increase in income.

The rate of interest and marginal efficiency of capital determine the investment levels. Rate of interest depends on money supply and liquidity preference. Keynes has given importance to the concept of liquidity preference.

Liquidity preference is based on three motives: transactive motive, precautionary motive, and speculative motive.

MEC depends on two factors namely prospective yield of capital asset and supply price of capital.
Aggregate demand function (ADF)

Keynesian model
- Output is determined mainly by aggregate demand
- Is the amount of money which entrepreneurs expect to get by selling the output produced by the number of labourers employed

Therefore it is expected income or revenue
- From the sale of output at different level of employment

Aggregate demand
- Following four components
  - 1. Consumption demand
  - 2. Investment demand
  - 3. Government expenditure
  - 4. Net export (Export – Import)

Desired demand in the economy
- Is the sum total of desired private consumption expenditure, desired investment expenditure, desired government spending and desired net exports

The desired spending is called
- Aggregate spending and can be expressed as
- \( AD = C + I + G + (X-M) \)

The above figure explains
Aggregate demand price increases or decreases
- With increase or decrease in the volume of employment
Aggregate demand curve - increases at and increasing rate in the beginning and then increases at decreasing rate.

This shows that - as income increases owing to increase in employment expenditure of the economy increase at a decreasing rate.

Aggregate Supply Function (ASF) - is increasing functions of the level of employment.

Aggregate supply refers - to the value of total output of goods and services produced in an economy in a year.

In other words, Aggregate supply - is equal to the value of national product ie. national income.

In other words, Aggregate supply refers - to the required amount of labourers and materials to produce the necessary output.

- Production involves cost

Aggregate supply price

Aggregate supply price - is the total amount of money that all entrepreneurs in an economy expect to receive from the sale of output produced by given number of labourers employed.

The term “price” refers - the amount of money received from the sale of output.

Components of aggregate supply are

- 1. Aggregate (desired) consumption expenditure (C)
- 2. Aggregate (desired) private saving (S)
- 3. Net tax payment (T)

Total payment to be received by the government – transfer payment, subsidy and interest payments to be incurred by the government.

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4. Personal (desired) transfer payments to the foreigners (Rf)
   Eg: Donations to international relief efforts

Aggregate supply
   \[ = C + S + T + Rf = \text{Aggregate income} \]
   generated in the economy

Figure 3.2 shows Aggregate Supply curve - the shape of the two aggregate supply curves drawn for the assumption of fixed money wage and variable wages
- \(Z\) curve is linear where money wages remains fixed
- \(Z_1\) curve is non-linear wage increase with employment

When full employment level - \(N_f\) is reached it is impossible to increase output by employing more men

Aggregate supply curve - become inelastic vertical straight line

The slope of aggregate supply curve - depends on the relation between the employment and productivity

The capital stock - often fixed
   - hence the law of diminishing marginal returns takes place
   - as more workers are employed
based upon this relation

The aggregate supply curve - can be expected to slope upwards

Aggregate supply depends - on the relationship between price and wages

If prices are high - wages low
-the producers will try to employ labourers

If prices are low - wages high
-investment will be curtailed output will fall
-reduction in the productive capacity

Aggregate supply - is an important factor is determining the level of economic activity

Equilibrium between ADF and ASF

Under the Keynes theory of employment - simple two sector economy consisting of the household sector and the business sector understand the equilibrium between ADF and ASF

-all the decisions concerning consumption expenditure
-taken by the individual household while the business firms take decisions concerning investment
-it is also assumed that
**Consumption function**

- is linear and planned investment is autonomous

There are two approaches to determining the equilibrium level of income in Keynesian theory:
- 1. Aggregate demand – Aggregate supply approach
- 2. Saving – Investment approach

**Aggregate demand and aggregate supply approach**

- is alone explained to understand the determination of equilibrium level of income and employment
- the employment level is $N_0$
- the tendency to employ more labour will stop once they reach point $E$
- at all levels of employment beyond $ON_0$
- the aggregate demand curve is below the aggregate supply curve indicating loss to the producers
- they will never employ more than $ON_0$ labour

Thus effective demand concept becomes a crucial point in determining the equilibrium level of output:
- in the capitalist economy or a free market economy in the Keynesian system
- employment need not be the full employment level $N_1$
- it is understand that the difference between $N_0$ – $N_1$ is the level of unemployment

**Equilibrium level**

- The concept of effective demand becomes significant in explaining the unemployment equilibrium

**Keynesianism**

- short-run equilibrium
- saving is a vice

**Function of money**

- is a medium of exchange on the one side and
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a store of value on the other side</td>
<td>-macro approach to national problems</td>
</tr>
<tr>
<td>-state intervention is advocated</td>
<td></td>
</tr>
<tr>
<td>Applicable to all situations</td>
<td>-full employment and less than full employment</td>
</tr>
<tr>
<td>-capitalism has inherent contradictions</td>
<td></td>
</tr>
<tr>
<td>Budgeting</td>
<td>-should be adjusted through changes in income</td>
</tr>
<tr>
<td>The equitability between saving and investment</td>
<td>-is advanced through changes in income</td>
</tr>
<tr>
<td>Rate of interest</td>
<td>-is determined by the demand for and supply of money</td>
</tr>
<tr>
<td>-rate of interest is a flow</td>
<td></td>
</tr>
<tr>
<td>-demand creates its own supply</td>
<td></td>
</tr>
<tr>
<td>Rate of interest</td>
<td>-is a reward for parting with liquidity</td>
</tr>
<tr>
<td>Classicism</td>
<td>-long – run equilibrium</td>
</tr>
<tr>
<td>-saving is a social virtue</td>
<td></td>
</tr>
<tr>
<td>Function of money</td>
<td>-is to act as a medium of exchange</td>
</tr>
<tr>
<td>-micro foundation to macro problems</td>
<td></td>
</tr>
<tr>
<td>-champions of laissez faire policy</td>
<td></td>
</tr>
<tr>
<td>-applicable only to the full employment situation</td>
<td></td>
</tr>
<tr>
<td>-capitalism is well and good</td>
<td></td>
</tr>
<tr>
<td>-balanced budget</td>
<td></td>
</tr>
<tr>
<td>The equality between saving and investment</td>
<td>-achieved through changes of rate of interest</td>
</tr>
<tr>
<td>Rate of interest</td>
<td>-is determined by saving and investment</td>
</tr>
<tr>
<td>-rate of interest is a stock</td>
<td></td>
</tr>
<tr>
<td>-supply creates its own demand</td>
<td></td>
</tr>
<tr>
<td>-rate of interest is a reward for saving</td>
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</tbody>
</table>