

MACROECONOMICS

A Comprehensive Guide to Economic Systems
and Performance

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UNIT – I

**NATIONAL INCOME AND RELATED
AGGREGATES**

CHAPTER 1

INTRODUCTION

➤ Economic Sector and their roles

1. **Economic sector** – These are those sectors which played economic roles in the economy.

Economic Sectors	Economic Roles
1. Firm 2. Household 3. Government 4. Foreign sector	Production Consumption Taxes and subsidies Export and Import

2. **Production** – All the goods and services are produced by the firm in a particular year.
3. **Consumption** – All the goods and services are consumed by the household in a particular year.
4. **Taxes** – It is a compulsory payment which paid to the government.
5. **Subsidies** – It is an economic assistance which given by the government to weaker section of the society.
6. **Export** – It is selling of goods and services in the economy to the rest of the world.

7. **Import** – It is purchasing of goods and services in the economy from the rest of the world.
8. **Investment** – It is a part of capital which paid for purchasing the assets.
9. **Saving** – It is a part of income which saved for future.

➤ **Branches of Economics**

There are two types of branches of the economics.

- Microeconomics
 - Macroeconomics
- a) **Microeconomics** – It is a part of economics which study of single firm, household and an industry.
 - b) **Macroeconomics** – It is a part of economics which study as a whole.

➤ **Difference between Microeconomics and Macroeconomics**

<i>Basis</i>	<i>Microeconomics</i>	<i>Macroeconomics</i>
1. Meaning	It is a part of economics which study of single firm, household and an industry.	It is a part of economics which study as a whole.
2. Scope	It has narrow scope	It has wider scope
3. Theory	Price theory	Income and Employment theory
4. Example	Demand, Supply, consumer equilibrium etc.	AD, AS etc.

➤ **Concept of Stock and Flow**

- (a) **Stock** – These are those economic variables which are measured in particular point of time.

Examples are – Money supply, National Wealth, Stock of rice in godowns etc.

(b)Flow – These are those economic variables which are measured over a period of time.

Examples are –National Income, Capital, Investment, GDP etc.

➤ **Difference between Stock and Flow**

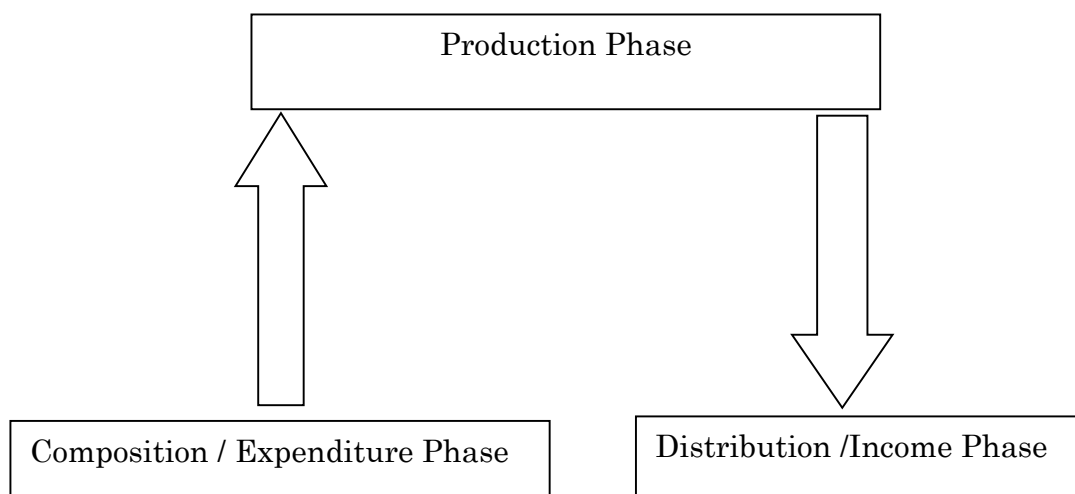
<i>Basis</i>	<i>Stock</i>	<i>Flow</i>
1. Meaning	These are those economic variables which are measured in particular point of time.	These are those economic variables which are measured over a period of time.
2. Measured	It is a measured point of time.	It is a measured over a period of time.
3. Time	It is not time dimensional	It is time dimensional
4. Example	Money supply, National wealth etc.	National income, capital etc

➤ **Concept of Real Flow and Nominal/Money Flow :**

<i>Real Flow</i>	<i>Nominal / Money Flow</i>
➤ It is a flow of goods and services in different sector of economy.	1. It is a flow of money in different sector of economy.
➤ It is related to the barter exchange system.	2. It is related to monetary exchange system.
➤ Examples are - factors service, goods and service etc.	3. Examples are – factor payment, consumption expenditure etc.

➤ **Phases of Circular Flow of Income –**

➤ *It is a flow of income in different sector of economy.*



➤ **Two Sectors Model of Income (Real Flow)**

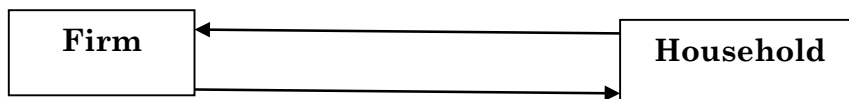
➤ **Factor Service**



➤ **Two Sectors Model of Income (Money Flow)**

Consumption Exp.

Factor Payment



➤ **Great Depression During 1929**

The Great Depression, which began in the United States in 1929 and spread worldwide, was the longest and most severe economic downturn in modern history. It was marked by steep declines in industrial production and in prices (deflation), mass unemployment, banking panics, and sharp increases in rates of poverty and homelessness.

Causes of the Great Depression

1. The stock market crash of 1929 shattered confidence in the American economy, resulting in sharp reductions in spending and investment.

2. Banking panics in the early 1930s caused many banks to fail, decreasing the pool of money.
3. Real output and prices fell precipitously.

Between 1929 and 1932, worldwide Gross Domestic Product (GDP) fell by an estimated 15%; in the U.S., the Depression resulted in a 30% contraction in GDP. Recovery varied greatly around the world. Some economies, such as the U.S., Germany and Japan started to recover by the mid-1930.

➤ **Leakages and Injections**

1. Leakages – It refers to the withdrawal of money by the economic sector.

Examples -

- a) Savings
- b) Tax
- c) Imports

2. Injection - It refers to the income by the economic sector

Examples -

- a) Investment
- b) Government Expenditure
- c) Exports

NCERT QUESTIONS

1. What is the difference between microeconomics and macroeconomics?
2. Describe the four major sectors in an economy according to the macroeconomic point of view.
3. What are the four factors of production and what are the remuneration to each of these called?
4. Distinguish between stock and flow. Between net investment and capital which is a stock and which is a flow? Compare net investment and capital with flow of water into a tank.

CHAPTER 2

SOME BASIC CONCEPTS OF MACROECONOMICS

- **Economic/ Domestic Territory-** The territory where government maintain all law and order and people follows these laws. It is called Domestic Territory.

Example – 1. SBI establishes in USA, the domestic territory in India.

Example – 2. Air India operates China, the domestic territory is India.

- **Normal Residence** – A person who lived in a country more than one year is known as Normal residence.

Example – 1. Akshay live in a USA more than 5 years for a job. So he is a normal residence of USA.

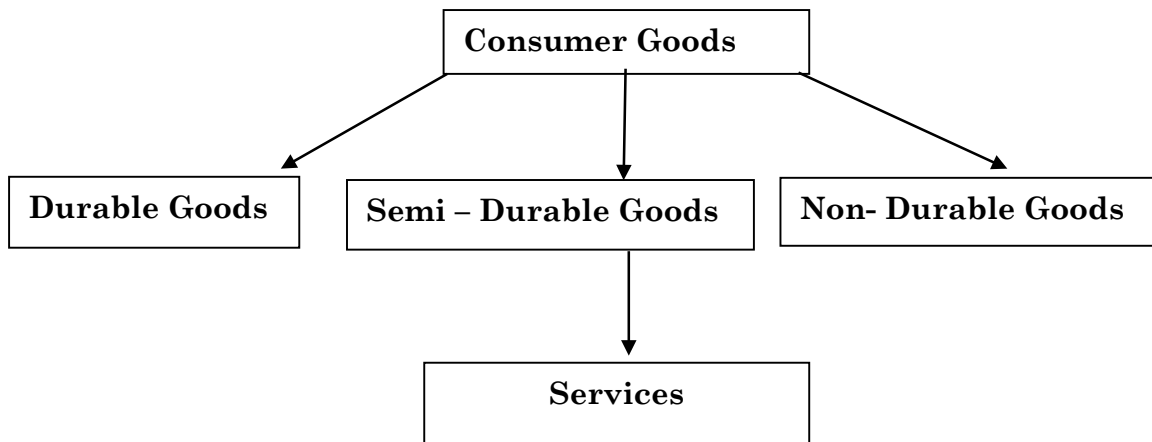
Example – 2. Vinod live in Australia less than 3 months. He is a normal residence of India.

- **Citizenship** – It is a legal concept which is other than Normal residence. It is related to the birth.

Example – Vinod lives in Australia but born in India. He is citizen of India or he is Indian.

- **Consumer Goods and Capital Goods**

- **Consumer Goods** – These are those goods which are consumed by household sector.



- **Durable Goods** – These are those goods which are durable for a long period of time.

Examples - Car, AC, Fridge etc.

- **Semi-Durable Goods** – These are those goods which are durable in one to four years.

Examples – Mobile, Furniture, Cloths etc.

- **Non – Durable Goods** – These are those goods which are non- durable in nature. These are used less than one year or six months.

Examples – Vegetables, Fruits etc.

- **Services** – These are non-good in nature. It is an intangible.

Examples – Doctors, Professors, Engineers etc.

- **Capital Goods** – These are those goods which are used for further production.

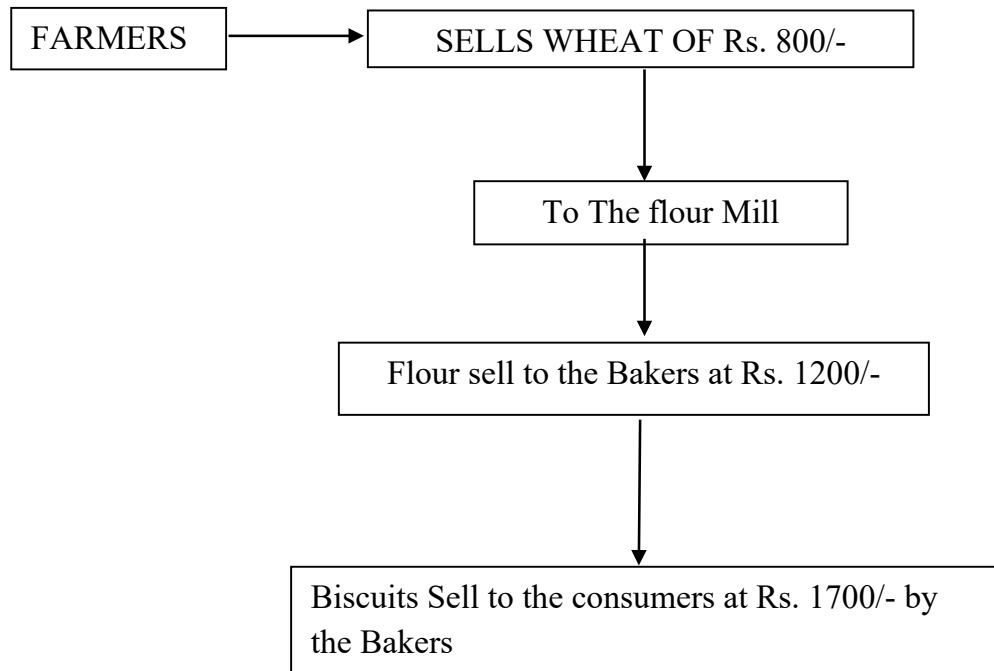
Examples – Plants and Machinery, Land and Building etc.

- **Concept of Final Goods and Intermediate Goods**

1. **Final goods** - These are those goods which are used by final users. Examples are – Matchbox, Shirts, Pens, and Pencils etc.

2. **Intermediate goods** – These are those goods which are used for re-sale.
Examples are – Milk used by Sweet Shops etc.

➤ **Process of Final Goods and Intermediate Goods**



➤ **Distinguish between Final Goods and Intermediate Goods**

Final Goods	Intermediate Goods
These are those goods which are used by final users.	These are those goods which are used for Re-Sale
Final output	Re-sale Purpose
Used by final users	Used by the firms

Examples – Milk used by consumers.	Examples – Milk used by sweet shop.
------------------------------------	-------------------------------------

➤ **Distinguish between Consumption Goods and Capital Goods**

Consumption/Consumer Goods	Capital Goods
These are those goods which are used for consumption.	These are those goods which are used for production.
It is used by consumers	It is used by producers
Examples – Matchbox, Shirts, Pen etc.	Examples – Land and Building, Plant and Machinery etc.

- **Depreciation / Consumption of Fixed Capital** -It is an expenditure on normal wear and tear.
- **Gross Investment** – Investment where depreciation is add in Net Investment. It is a total investment made by the firms.
- **Net Investment** -Investment where depreciation is less in Gross Investment. It is an actual investment made by the firms.

Gross Investment (G_i) = Net Investment + Depreciation/Consumption Of Fixed Capital
 Net Investment (N_i) = Gross Investment – Depreciation/ Consumption Of Fixed Capital

➤ **Concept of Domestic Product/ Income and National Product / Income**

1. **Domestic Product (NDP_{FC})**–These are those products which are produced within the boundry line.
2. **National Product (NNP_{FC})** - These are those products which are produced outside the boundry line.

- **Net Factor Income From Abroad (NFIA)** – Income from rest of the world (Actual) is known as NFIA.

$$\text{Nfia} = \text{Fifa (Factor Income From Abroad)} - \text{Fita (Factor Income To Abroad)}$$

- **Net Indirect Tax (NIT)** – These are those actual taxes which are paid to the government indirectly. Its calculated by:

$$\text{NET INDIRECT TAX (NIT)} = \text{INDIRECT TAX (IT)} - \text{SUBSIDIES (S)}$$

- Subsidies are always treating negative because government has cash outflow as a payment.
- Indirect tax is always treating positive because government has cash inflow as a received income.
- **Market Price (MP)** -It is a price which the entire products are selling and purchase during a period of time.
- **Factor Cost (FC)** -It is a cost of production factor which are paid by the firm to the factors during a period of time.

FORMULAS

From Gross to Net =	(-) Depreciation
From Net to Gross =	(+) Depreciation
From Domestic Product (DP) to National Product (NP) =	(+) NFIA
From National Product (NP) to Domestic Product (DP) =	(-) NFIA
From Market Price (MP) to Factor Cost (FC) =	(-) NIT
From Factor Cost (FC) to Market Price (MP) =	(-) NIT

- **Factor Income from Abroad (FIFA) always treats as positive.**
- **Factor Income to Abroad (FITA) always treats as negative.**

NCERT QUESTIONS

1. Distinguish between Final goods and intermediate goods.
2. Distinguish between consumption goods and capital goods.
3. Machine purchased is always final goods. Do you agree?
4. Distinguish between depreciation and capital loss.
5. Which of the following are Intermediate and Final:
 - a) Milk consumed for Paneer.
 - b) Purchase fan by firm.
 - c) Purchase coarse cereals in wholesale market

CHAPTER 3

NATIONAL INCOME & RELATED AGGREGATES

➤ **There are some aggregates related to National income**

- a) **GDP_{MP} (Gross Domestic Product at Market Price)** – It is a market price of GDP of a country in a particular year.
- b) **GDP_{FC} (Gross Domestic Product at Factor Cost)** - It is a factor cost which GDP are produce.
- c) **GNP_{MP} (Gross National Product at Market Price)** – It is a market price of total National product which are produced in a country.
- d) **GNP_{FC} (Gross National Product at Factor Cost)** – It is a factor cost which national product are produced.
- e) **NDP_{MP} (Net Domestic Product at Market Price)** – It is actual domestic product produced at market price of a country.
- f) **NDP_{FC} (Net Domestic Product at Factor Cost)** – It is actual domestic product produced at cost of factors of a country.
- g) **NNP_{MP} (Net National Product at Market Price)** – It is actual national product produced at market price of a country.
- h) **NNP_{FC} (Net National Product at Factor Cost)** – It is actual national product produced at factor cost of a country.

NDPFC = Domestic Income = Domestic Product

NNPFC = National Income = National Product

CHAPTER 4

MEASUREMENT / METHODS OF NATIONAL INCOME

Meaning of National Income – It is all the factors income earned by the economic sectors in accounting year. Total of these factors income is known as National Income. (NNP_{FC})

{Rent + Wages + Interest + Profit} = Factors Income

Methods / Ways for calculation of National Income

1. Value Added Method
2. Income Method
3. Expenditure Method

Value Added Method – It is a method which are related to calculating national income is includes only final goods and services.

Problem of Double Counting

1. **Double counting** – It is a problem which arises due to counting the items more than once in an accounting year.
2. **Avoids Double Counting** – We have to avoid double counting with the help of two important methods.
 - (a) **Value Added Method** – In this method, only final output are included after excluding Intermediate consumption. For Examples, farmers sells wheat Rs. 500/- to Miller, Miller sells flour Rs. 800/- to Baker, Baker sells Biscuits to the consumers at Rs. 1000/-

$$500 + 800 + 1000 = 2300/-$$

$$\text{Value of Output (VO)} = 2300/-$$

$$\text{Gross Value Added at Market Price (GVA}_{\text{MP}}) = \text{VO} - \text{IC}$$

$$\text{GVAMP} = 2300 - 1000 = 1000$$

(a) Final Output Method – In this method, only final output are included.

For Example,

Wheat - 500/-

Flour – 800/-

Biscuit - 1000/- - Final Output

➤ **Methods for Calculating National Income-**

(a) Value Added Method/ Final Output Method

(b) Income Method

(c) Expenditure Method

➤ **Value Added Method/ Final Output Method**

$$\text{GVA}_{\text{MP}}/\text{GDP}_{\text{MP}} = \text{Value of Output (VO)} - \text{Intermediate Cost/ Consumption (IC)}$$

$$\text{Value of Output (VO)} = \text{Sales} + \text{Change in Stock}$$

$$\text{Change in Stock} = \text{Closing Stock} - \text{Opening Stock (CS - OS)}$$

$$\text{Sales} = \text{Domestic Sales (DS)} + \text{Exports}$$

$$\text{Sales} = \text{Price} \times \text{Quantity (PxQ)}$$

➤ **Precautions under Value Added Method**

(a) Only final goods are included in National Income.

(b) Intermediate goods are not included in the National income.

(c) Sales and purchase of second-hand goods are not.

(d) Production of goods for self – consumption will be included.

(e) Change in stock of goods (Inventory) will be included.

➤ **Income Method**

NDPFC/ Domestic Income = Compensation of Employees (COE) + Operating Surplus (OS) + Mixed Income (MI)

Compensation of Employees (COE) = Wages and Salaries in cash + Wages and Salaries in Kind + Employer's contribution to social security schemes

Operating Surplus (OS) = Rent + Royalty + Interest + Profit

Profit = Corporation Tax + Undistribute Profit + Retained Earnings + Dividend

Mixed Income (MI) = Income of Barbers, shopkeepers, workers etc.

➤ **Expenditure Method**

Under this method, national income is calculated by expenditure of final goods and services.

➤ **Precautions under Value Added Method**

10. Only expenditure of final goods and services are to be calculated.

(a) Expenditure on second hand goods are not included in National income, because this is already included.

(b) Expenditure on self-occupied houses are included in national income.

GDPMP = Private/Public Final Expenditure (G) + Gross Domestic Capital Formation/ Investment Expenditure (GDCF/I) + Government Expenditure (G) + Net Export (X-M)

GDCF = NDCF + DEP

GDCF = NDFCF + DEP + Change in Stock

GDCF = GDFCF + Change in stock

Limitations of Gross Domestic Product and Welfare

1. **Distribution of GDP:** - It is possible that with rise in GDP, inequalities in the distribution of income may also increase, i.e., the gap between rich and poor increases (i.e., rich become richer and poor become poorer). So, if with rise in GDP, inequality increases, then welfare of the people may not rise as much as the rise in GDP.
2. **Change in prices:** - If increase in GDP is due to rise in prices and not due to increase in physical output, then it will not be a reliable index of economic welfare.
3. **Non-monetary exchanges:** - Many activities in an economy are not evaluated in monetary terms. For example, non-market transactions like services of housewife, kitchen gardening, leisure time activities, etc. are not included in GDP, due to non availability of data. However, such activities influence the economic welfare.
4. **Externalities:** - Externalities refer to benefits or harms of an activity caused by a firm or an individual, for which they are not paid or penalised. Activities which result in benefits to others are termed as positive externalities and activities result in harm to others are termed as negative externalities.

Example and Impact of Negative Externality: Environmental Pollution caused by industrial plants. Such pollution reduces the welfare through negative effect on health.

Example and Impact of Positive Externality: Use of public parks by the people for pleasure for which no payments are made by the public. It increases welfare through positive effect on health.

Composition of GDP: Higher GDP will promote welfare only if increased output comprises of goods of mass consumption and essential goods. Increase in production of war goods does not lead to any direct increase in the welfare of people. So, composition of GDP also affects Welfare.

Relationship between GDP and Welfare

While GDP and welfare are often considered complementary indicators of prosperity, they actually represent highly disparate dimensions of success. Indeed, GDP quantifies the economic output, while welfare captures more qualitative dimensions of welfare. Thus, this understanding can be useful to determine whether growth in the economy translates meaningfully into quality of life.

➤ **Key Aspects of Their Relationship**

1. **Correlation in Developing Economies:** Like in most developing countries, the increase in GDP positively correlates with better well-being because growth in the economy translates into better employment opportunities, infrastructure development, and access to essential services.
2. **Disconnect in Developed Economies:** In the developed economy, the relationship between GDP and welfare may be relatively weak. In that case, in some high-income countries, GDP increases without any perceptible contribution to well-being due to complications like income inequality or environmental degradation.
3. **Limitations of GDP as a Welfare Measure:** Since the issues with regard to distributional equity, environmental damage, and social aspects are basic to welfare, it is not at all possible to measure welfare using GDP. It further opens up the need for more comprehensive measures of welfare to determine actual societal welfare.

➤ **Difference between GDP and Welfare**

To understand the nuances of GDP and welfare, it's helpful to compare them across different attributes. This table illustrates the key differences:

Aspect	GDP	Welfare
Definition	The economic output of goods and services	Quality of life and overall well-being
Measurement Approach	Quantitative	Both quantitative and qualitative
Focus	Economic growth	Holistic well-being
Indicators Used	Income, production levels	Health, education, equality, environmental quality
Environmental Impact	Often ignored	Included
Distributional Equity	Not considered	Central aspect

SOLVED NUMERICALS

1. Calculate a) Operating Surplus, and b) Domestic Income;

Items	₹ in Crore
i) Compensation of Employees	2,000
ii) Rent and interest	800
iii) Indirect Taxes	120
iv) Corporation tax	460
v) Consumption of fixed capital	100
vi) Subsidies	20
vii) Dividend	940
viii) Undistributed Profits	300
ix) Net Factor Income to abroad	150
c) Mixed Income	200

[CBSE – 2018]

Solution:-

Profit = Dividend + Corporation tax + Undistributed Profits

Profit = vii + iv + viii = ₹940 + ₹460 + ₹300 = ₹1700

Operating Surplus = Rent (Royalty) + Interest + Profit

a) Operating Surplus = ₹800 + ₹1700 = ₹2500

b) Domestic Income = NDP at FC = Compensation of Employees + Mixed Income + Operating Surplus

$$\text{Domestic Income} = ₹2000 + ₹200 + ₹2500 = ₹4700$$

2. Calculate National Income

Items	(₹ in crore)
i) Compensation of employees	2,000
ii) Profit	800
iii) Rent	300
iv) Interest	250
v) Mixed income of self employed	7000
vi) Net current transfers to abroad	200
vii) Net Exports	– 100
viii) Net indirect taxes	1,500
ix) Net Factor income to abroad	60
x) Consumption of fixed capital	120

[CBSE Foreign – 2017]

Solution:-

NDP at FC = Compensation of Employees + Mixed Income + Rent (Royalty) + Interest + Profit

$$\text{NDP at FC} = ₹2000 + ₹7000 + ₹300 + ₹250 + ₹800 = ₹10350$$

NNP at FC = NDP at FC + NFIA (factor income from abroad – factor income to abroad)

$$\text{NNP at FC} = 10350 + (0 - 60) = 10350 - 60 = \text{₹10290}$$

3. Calculate Net National Product at Market Price:

Items	(₹ in thousand crore)
1. Compensation of Employees	250
2. Mixed income of self employed	600
3. Profit	80
4. Rent	30
5. Interest	40
6. Net factor income to abroad	– 10
7. Net exports	15
8. Consumption of fixed Capital	20
9. Net indirect taxes	10
10. Net current transfers to abroad	8

Solution:-

Domestic Income (NDP at FC) = Compensation of Employees + Mixed Income + Rent(royalty) + Interest + Profit

$$\text{NDP at FC} = 250 + 600 + 30 + 40 + 80 = \text{₹1000}$$

National Income (NNP at FC) = NDP at FC + NFIA (factor income from abroad – factor income to abroad)

$$\text{NNP at FC} = ₹1000 + [- (-10)] = 1000 + 10 = ₹1010$$

$$\text{NNP at MP} = \text{NNP at FC} + \text{Net Indirect taxes (Indirect taxes – Subsidy)}$$

$$\text{NNP at MP} = 1010 + 10 = ₹1020$$

4. Calculate National Income:

Items	(₹ in crore)
1. Profit	1,000
2. Mixed Income of self employed	15,000
3. Dividends	200
4. Interest	400
5. Compensation of employees	7,000
6. Net factor income to abroad	100
7. consumption of fixed capital	400
8. Net exports	– 200
9. Net Indirect taxes	800
10. Net Current transfers to rest of the world	40
11. Rent	500

[CBSE Foreign – 2017]**Solution:-**

Domestic Income = Compensations of Employees + Mixed Income + Rent (royalty) + Interest + Profit

Domestic Income = 7,000 + 15,000 + 500 + 400 + 1,000 = ₹23900

NNP at FC = Domestic Income + NFIA

NNP at FC = 23900 – 100 = ₹23800

5. Calculate the Gross National Product at Market Price:

Items	(₹ in crore)
1. Compensation of employees	2500
2. Profit	700
3. Mixed income of self employed	7500
4. Government final consumption expenditure	3000
5. Rent	400
6. Interest	350
7. Net factor income from abroad	50
8. Net current transfers to abroad	100
9. Net indirect taxes	150
10. Depreciation	70

11. Net exports	40
-----------------	----

Solution:-

Domestic Income = Compensations of Employees + Mixed Income + Rent (royalty) + Interest + Profit

$$\text{Domestic Income} = 2500 + 7500 + 400 + 350 + 700 = ₹11450$$

$$\text{NNP at FC} = \text{Domestic Income} + \text{NFIA}$$

$$\text{NNP at FC} = 11450 + 50 = ₹11500$$

$$\text{GNP at MP} = \text{NNP at FC} + \text{consumption of fixed capital} + \text{Net Indirect taxes}$$

$$\text{GNP at MP} = 11500 + 70 + 150 = ₹11720 \text{ crore}$$

6. Calculate the Net National Product at Market Price

Items	(₹ in Crore)
1. Mixed income of self Employed	8000
2. Depreciation	200
3. Profit	1000
4. Rent	600
5. Interest	700
6. Compensation of employees	3000
7. Net indirect taxes	500
8. Net factor income to abroad	60

9. Net exports	(-) 50
10. Net current transfers to abroad	20

Solution:-

Domestic Income (NDP at FC) = Compensations of Employees + Mixed Income + Rent (royalty) + Interest + Profit

Domestic Income = 3000 + 8000 + 600 + 700 + 1000 = ₹13300

NNP at FC = Domestic Income + NFIA

NNP at FC = 13300 – 60 = ₹13240

NNP at MP = NNP at FC + Net Indirect Taxes

NNP at MP = 13240 + 500 = ₹13740 crore

7. Calculate National Income:-

1. Compensation of employees	2000
2. Rent	400
3. Profit	900
4. Dividend	100
5. Interest	500
6. Mixed income of self employed	7000
7. Net factor income to abroad	50
8. Net exports	60
9. Net indirect taxes	300
10. Depreciation	150

11. Net current transfers to abroad	30
-------------------------------------	----

Solution:-

National Income = NNP at FC

Domestic Income (NDP at FC) = Compensation of Employees + Mixed Income of self employed + Rent + Interest + Profit

NDP at FC = 2000 + 7000 + 400 + 500 + 900

NDP at FC = ₹ 10800

NNP at FC = NDP at FC – Net factor income to abroad

NNP at FC = 10800 – 50

NNP at FC = ₹10750

UNIT – II

MONEY AND BANKING

CHAPTER 5

MONEY AND MONEY SUPPLY

Money – It is a thing which is medium of exchange known as money.

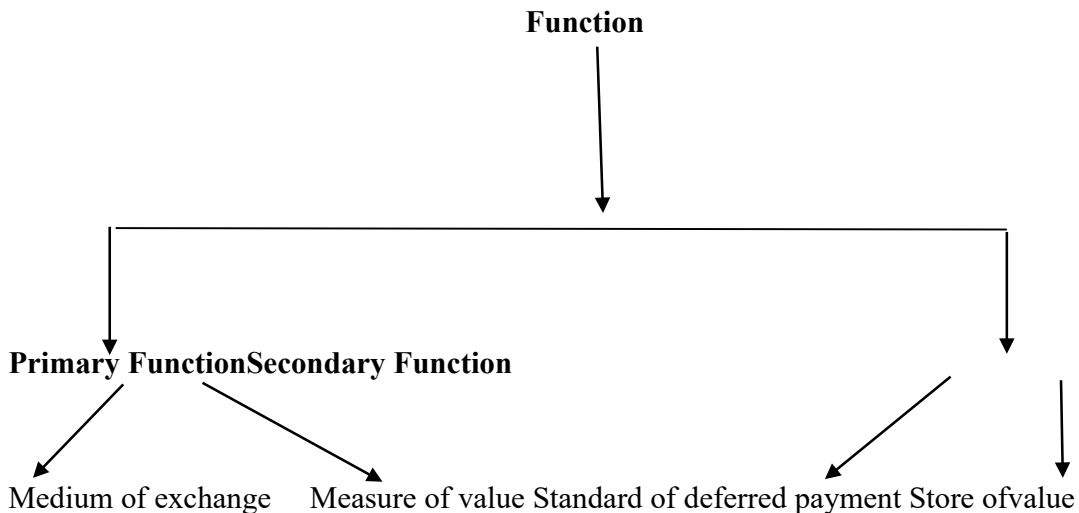
Barter Exchange System – When exchange of commodities to commodities is said to be known as Barter system. It is also known as C-C Economy.

Ex – A person wants wheat and B person wants Rice. They are exchange the commodities.

➤ **Problems/Drawbacks under Barter System**

- (a) **Lack of Double Coincidence of wants** – Under this system, two persons are not coinciding the wants to each other. If A person wants rice and B person have wheat then these two persons not coincide him wants.
- (b) **Lack of measures of value** – Under this method, we can't measure the value of commodities. For example- if we exchange 5 kg of wheat then what value of wheat is measured?
- (c) **Lack of standard for deferred (future) payment** – Under Barter system, future payments are not possible. For example- if two persons sell and purchase of any commodity they are not willing to pay any future amount. Amount will paid at a time of purchase and sell of a commodity.
- (d) **Lack of store of value** – Under Barter system, commodities will not be stored for the future, because commodities (Agricultural products) are perishable in nature. We can't store longer period of time.

➤ Functions of Money



1. **Medium of Exchange** – Money is medium of exchange, anything which we have purchase or sell in terms of money.
2. **Measure of value** – Money value is measures in terms of rupees. All the commodities value is measured in the form of money.
3. **Standard of Deferred (future) Payment** – Under money system, it is possible for future payment in the form of money.
4. **Store of Value** – Under money system, we have easily store value of money in our account.

➤ Money Supply

It refers to total volume of money held by the public at a particular point of time. It is a **stock** concept.

➤ Who supply the money?

- (a) Reserve Bank of India (RBI)
- (b) Central Government
- (c) State Government
- (d) Commercial banks
- (e) General public

➤ **Components of Money Supply**

- (a) **Currency with public** – It is a paper notes and coins held by the general public. Coins denomination 10,5,2,1 and 20 and paper notes denomination 500, 200, 100, 50, 20, 10 and 5. These all are includes in currency held with public.
- (b) **Demand Deposits with banks** – It refers to demand deposit (Bank Money) of the public with the commercial banks. Only Net Demand Deposits are included but term – deposits are not included.

➤ **Measures of Money Supply**

Four alternative measures are of money supply (M_1 , M_2 , M_3 and M_4)

- (a) **M_1** – It basic measures of money supply. It is a most liquid measures and easily used for medium of exchange.

$M_1 = \text{Currency and coins with public} + \text{Demand deposits of commercial banks} + \text{other deposits with RBI.}$

- (b) **M_2** – It is a broader concept of money supply as compared to M_1 .

$M_2 = M_1 + \text{saving deposits with post office saving bank.}$

- (c) **M_3** – The concept is broader as compared to M_1 . It includes –

$M_3 = M_1 + \text{Net Time Deposits with banks}$

- (d) **M_4** – this measure of money supply includes total deposits with post office banks.

$M_4 = M_3 + \text{Total Deposits with post office saving bank not included of National Saving Certificate}$

- **Legal Tender Money** – It is a form of money which legally used for make a payment of debts. Ex- papernotes and coins.
- **Non- Legal Tender Money** – It is a form of money, which generally accepted but legally bounded. Ex – Cheques, bank draft, bill of exchange.
- **Fiat Money** – It is a form of money which are used under order from the government.

CHAPTER 6

COMMERCIAL BANKS: THE CENTRAL BANK

Commercial Banks – These are the financial institutions, which acceptance of deposits and advancing of loans with the motive of profit earning. Examples – ICICI, SBI, PNB, Canara Bank etc.

➤ **Functions of Commercial Banks.**

- (a) Primary Functions
- (b) Secondary Functions

➤ **Primary Functions** – Main functions of commercial banks are acceptance of deposits and advancing of loans.

(a) **Acceptance of deposits** – The first function of commercial banks are accepting deposits. Banks are accepting deposits money from general public.

1. **Current Accounts**– These accounts are maintained by commercial banks for the businessman. In this account, banks do not pay any interest to the account holders. There are no any boundations to withdrawl money through the cheques.
2. **Term Deposit/ Fixed Deposit/Time Deposit Accounts** –These are those accounts which are mainted fixed period of time. When amount is deposited in this account then we can't withdrawl money before maturity period or date. In this account, banks paid high interest to the account holders but withdrawl is very restricted before the maturity period.
3. **Saving Account** – These accounts are maintained by general public. In this account, banks paid interest lower than fixed deposit accounts. Account

holders will withdraw easily through the cheque but some restrictions are to be made by the banks.

(b) Advancing of Loan – Another primary functions are made by the commercial banks are loans which is given to the general public at the time of financial crises.

1. **Cash credit** – The credit which is given to the general public on the behalf of current assets like shares, bonds, stocks etc.
2. **Demand loan** – Commercial banks are demand for the loan and recall the customers to the loan.
3. **Short term loan** – The loan which is given to the public on the behalf of some collateral security.

➤ **Secondary Functions**

(a) Overdraft Facility – The credit worthiness of businessmen or account holder, banks are given overdraft facilities for these consumers or account holders. If account holders don't have required fund then banks are transfer extra funds (overdraft) to his account. *Ex – A person paid Rs. 2, 50,000/- to the third party, but his account have only 2, 00,000 then bank automatically credit his account Rs. 50,000 more funds to make payment by the bank*

(b) Discounting of bill of exchange – Banks are given discounting of bill of exchange facility to the consumers. This facility is also beneficial to current account holders (Businessmen). *Ex – A and B are two persons. A purchased 10 machines from B, but he partly paid the amount of these machines. He paid only amount of 5 machines, remaining 5 machines amount he will pay within 90 days. B provides bill of exchange to A. In the bill of exchange both the parties will signed it. B any time discounting bill of exchange from Banks whenever he was not received payment on time.*

➤ **Agency Functions**

- (a) Purchase and sell of securities
- (b) Transfer of funds
- (c) Collection and payments various items
- (d) Income tax consultancy

➤ **General Utility Functions**

- (a) Locker's facility
- (b) Travellers Cheque

➤ **Money Creation or Credit Creation**

Two Assumptions are –

- (a) The entire commercial banking system is one unit is termed as bank.
- (b) All receipts and payments are routed through cheques and all receipts are deposited in banks.

	Deposits (Rs.)	Loans (Rs.)	LRR (20%)
Initial deposit	1,000	800	200
I Round	800	640	160
II Round	640	512	128
-----	-----	-----	-----
Total	5,000	4,000	1,000

$$\text{Money Multiplier} = \frac{1}{LRR}$$

$$LRR = 20\% \text{ OR } 0.2$$

$$\frac{1}{0.2} = 5 \text{ times}$$

➤ **Central Bank (Reserve Bank of India)**

Reserve Bank of India was established in 1935 but nationalised after independence. This is a Supreme body which controls all the monetary system of our economy.

Definition of Central Bank

It is an apex (supreme) institution of regulates, controls and directs of all the entire banking and monetary strucutre of the country.

➤ **Functions of Central Bank (RBI)**

- (a) Issue of Currency** – All the currency except one rupee note and coins are issued by RBI. One Rupee note and coins are issued by minister of finance. The signature of finance secretary bears on one rupee note and coins. The paper currency notes bear the signature by the RBI governor.
- (b) Bankers Bank and Supervisor** – RBI work as bankers of all the commercial banks regarding the rate of interest or financial decisions.
- (c) Government Bank and Supervisor** – RBI supervised the union government relates to the financial issues. RBI is lender of union government of India.
- (d) Lender of Last Resort** – In a financial crises when the banks are not much amount to pay the general public then last lender is central bank.
- (e) Clearing Housing Functions** – Any issue regarding the accounts related to commercial banks like cheques are not cleared of two banks then RBI clearing the cheques.

➤ **Controller of Credit Control**

Central Bank (RBI) is a credit controller when economic problems are arising. Two main techniques are used for credit control.

(a) Quantitative Technique/ Method

(b) Qualitative Technique/ Method

➤ **Quantative Techniques/Methods**

(a) Repo Rate (Short Term) – It is a rate in which central bank lends a money (funds) to the commercial banks. It is a short term rate. It is Repurchase rate.

Inflation	Repo Rate Increase
Deflation	Repo Rate Decrease

(b) Reverse Repo Rate – It is a Rate in which commercial banks are deposits their funds or money to the Central Bank. It is a Reverse Re-Purchase Rate.

Inflation	Reverse Repo Rate Increase
Deflation	Reverse Repo Rate Decrease

(c) Bank Rate (Long Term) – It is a rate in which commercial banks lends money to the general public. It is also known as Discount Rate.

Inflation	Bank Rate Increase
Deflation	Bank Rate Decrease

(d) Open Market Operations (OMO) – It is a market where buying and selling the government securities to the general public and banks.

Inflation	Sales Market Securities
Deflation	Purchase Market Securities

(a) Legal Reserve Requirements (LRR) –It is a minimum reserve requirement by the Central Bank or Commercial Banks. There are two reserves under LRR.

(b) Cash Reserve Ratio (CRR) -It is a ratio of minimum reserves which are reserve by the commercial banks with the central bank.

Inflation	Increase in CRR
Deflation	Decrease in CRR

(ii) Statutory Liquidity Ratio (SLR) - It is the ratio of minimum reserves which are reserve by commercial banks only.

Inflation	Increase in SLR
Deflation	Decrease in SLR

➤ **Qualitative Techniques/Methods**

- (a) **Moral Suasion** – It is oral and written advice to all the commercial banks by the central bank. These advices are related to the financial situations or operations of the country.
- (b) **Margin Requirement** – It is a difference between the amount of loan and market value of the security offered by the borrower against the loan. For example, If central bank is fixed 40% Margin then commercial banks give upto 60% loan to the borrowers.

Increase in Margin Requirement, Reduces the borrowing capacity

Decrease in Margin Requirement, Raising the borrowing capacity

NCERT QUESTIONS

1. Explain the functions of a commercial bank.
2. What is Multiplier? What determines the value of multiplier?
3. What are the instruments of monetary policy of RBI?
4. Do you consider a commercial bank ‘creator of money’ in the economy.
5. What role of RBI is known as ‘Lender of last resort’.

UNIT – III

**AGGREGATE DEMAND AND
AGGREGATE SUPPLY**

CHAPTER 7

AGGREGATE DEMAND & ITS COMPONENTS

Aggregate Demand Definition:

Total demand for all goods and services in an economy is called Aggregate Demand.

Components of Aggregate Demand (AD)

- (a) Private Final Consumption Expenditure (C)** – Demand for goods and services for private consumption or value of goods and services that households are able and willing to buy.
- (b) Private Final Investment Expenditure (I)** –It refers to intended (ex-ante) expenditure on creation of new capital assets like machines, buildings, raw materials etc. by private entrepreneurs.
- (c) Government Expenditure or Demand (G)** –It refers to the government intended (Ex-ante) expenditure on purchase of consumer and capital goods to fulfill or satisfy common needs of the society.
- (d) Net Exports (X-M)** – It refers to the difference between exports and imports of an economy.

- **In Open Economy there are Four Components of Aggregate Demand**

$$AD = C+I+G+(X-M)$$

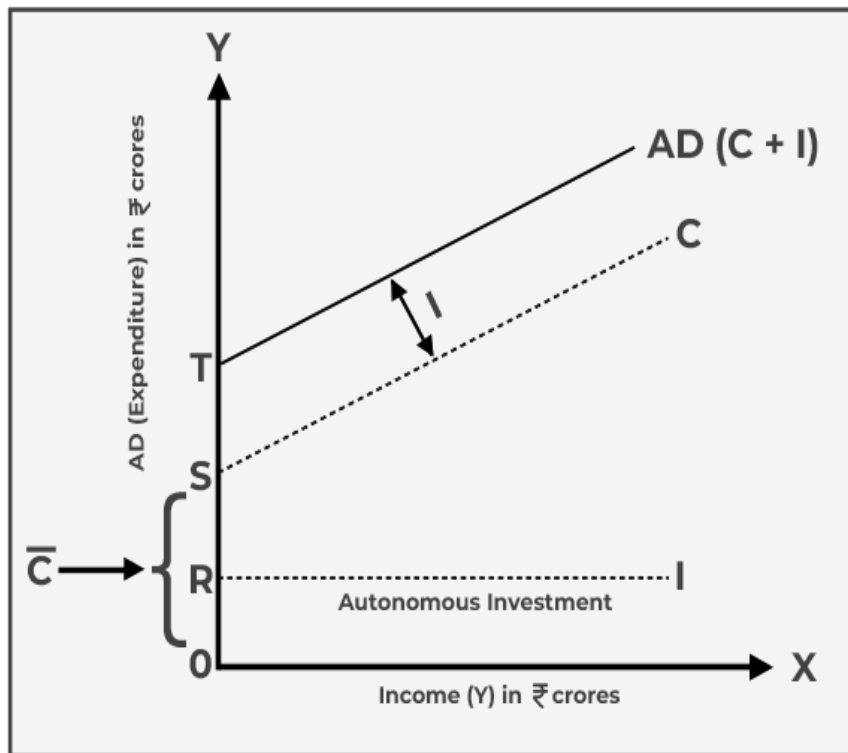
- **In Closed Economy there are Two Components of Aggregate Demand (Assumed by J.M. Keynes)**

$$AD = C+I$$

➤ AD Schedule (Rs. in Crore)

Income (Y)	Consumption (C)	Investment (I)	AD (C+I)
0	10	2	12
10	15	2	17
20	20	2	22
30	25	2	27
40	30	2	32
50	35	2	37

➤ AD Curve



Observations

- (a) Investment Curve (I), which is straight line parallel to x-axis. The Keynes assumes that autonomous consumption.
- (b) C is a consumption curve, which has positive (upward) slope. The consumption increase with increase in income.
- (c) The value of consumption at zero level is known as Autonomus consumption ($\bar{C}$).
- (d) AD curve always starts from above the origin; because of AD is the vertical summation of consumption and investment at zero level of income.
- (e) AD curve shows positive relation between Income and AD.

Aggregate Supply Definition:

It is the money value of the total output available for purchase in an economy during a given period.

$$AS = Y$$

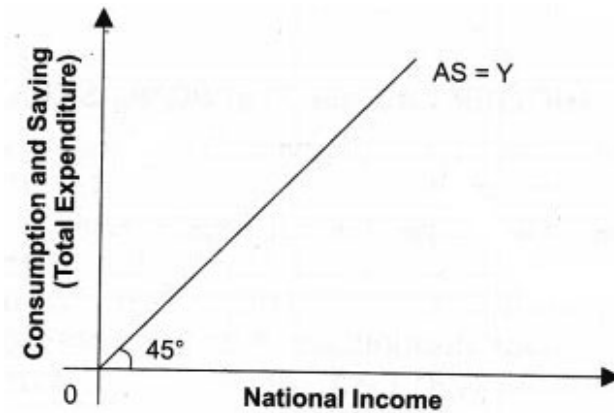
$$AS = C+S$$

$$AS = \text{TOTAL OUTPUT} = \text{NATIONAL INCOME}$$

➤ AS Schedule (Rs. in Crore)

Income (Y)	Consumption (C)	Savings (S)	AS (C+S)
0	10	-10	0
10	15	-5	10
20	20	0	20
30	25	5	30
40	30	10	40
50	35	15	50

➤ AS Curve



Observations

- (a) The AS curve is 45° positively sloped curve.
- (b) AS curve or income line (Y) implies that total national income is equal to total expenditure, i.e., consumption + savings.
- (c) At all points on 45° line, consumption is equal to income. It helps under the Keynesian economic analysis.

➤ Consumption Function

The functional relationship between consumption and income is called consumption function.

$$C = f(Y)$$

➤ Equation under Consumption Function

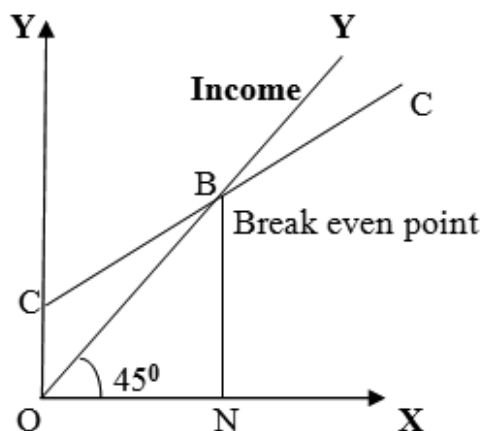
$$C = \bar{C} + b(y)$$

$$b = MPC$$

➤ **Consumption Schedule (in Crores)**

Income (Y)	Consumption (C)
0	15
10	20
20	25
30	30
40	35
50	40

➤ **Consumption Curve**



Observations

- (a) 45° line is the income line or line of equality.
- (b) Consumption Curve has a positive sloped curve, which shows that as income rises, consumption will also raise but in less proportion.
- (c) The point where consumption is equal to income (**B Point**) is known as Break - even point.

➤ **Propensity to Consume**

It refers to the situation, which shows the level of consumption at different levels of income in an economy.

➤ **Types of Propensity to Consume**

(a) **Average Propensity to Consume (APC)** – It is the ratio between Total consumption (C) and Total National Income (Y) of the economy.

$$APC = \frac{C}{Y}$$

➤ **Average Propensity to Consume (APC) Schedule**

Income (Y)	Consumption (C)	APC ($\frac{C}{Y}$)
0	15	----
10	20	2
20	25	1.25
30	30	1
40	35	0.875

➤ **Features of Average Propensity to Consume (APC)**

1. As income increases APC falls because the proportion of income spent on consumption decreases.
2. The $APC > 1$, when consumption expenditure (C) is less than national income (Y), ($C < Y$), i.e., beyond the point of BEP.
3. The $APC = 1$, when consumption expenditure (C) is equal to national income (Y), $C = Y$.
4. APC can never be zero, because consumption (C) is never equal to zero at any level of income.

(b) **Marginal Propensity to Consume (MPC)** – It is the ratio between Change in consumption (ΔC) and Change in National Income (ΔY) of the economy.

$$MPC / b = \frac{\Delta C}{\Delta Y}$$

➤ **Marginal Propensity to Consume (MPC) Schedule**

Income (Y)	Consumption (C)	ΔY	ΔC	MPC ($\frac{\Delta C}{\Delta Y}$)
0	15	----	----	----
10	20	10	5	0.5
20	25	10	5	0.5
30	30	10	5	0.5
40	35	10	5	0.5

➤ **Features of Marginal Propensity to Consume (MPC)**

(a) $MPC > 0$ but $MPC < 1$

(b) The value of MPC always lies between 0 and 1. MPC is assumed to be positive and less than unity which means that when income increases, when income falls, consumption expenditure (C) does not decline in the same proportion and never be zero.

(c) If entire additional income (ΔY) is saved, then change in consumption (ΔC) is zero, in such the situation (**$MPC = 0$**)

(d) The MPC is low in the case of rich people and high in the case of poor.

(e) MPC of developing or underdeveloped countries is high than developed countries.

➤ **Saving Function**

The functional relationship between saving and income is called consumption function.

$$S = f(Y)$$

➤ **Equation under Consumption Function**

$$(1-b) = MPS$$

$$S = \bar{s} + (1 - b) y$$

OR

$$S = \bar{s} + (1 - MPC) y$$

OR

$$S = \bar{s} + (MPS) y$$

OR

$$S = \bar{C} + (1 - b) y$$

OR

$$S = \bar{C} + (1 - MPC) y$$

OR

$$S = \bar{C} + MPS (y)$$

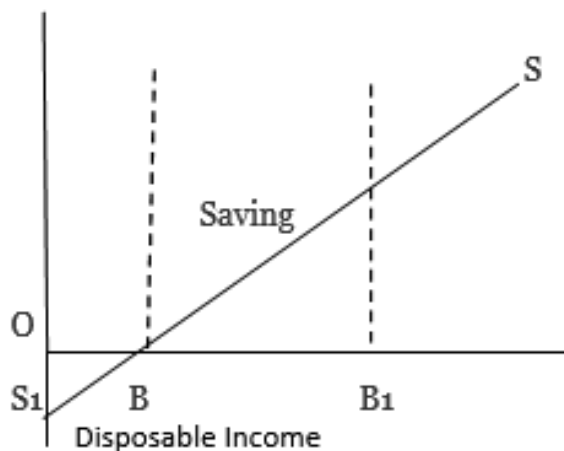
Saving – The part of income (Y) which is not spent on consumption is called saving.

$S = Y - C$

➤ **Saving Schedule (in Crores)**

Income (Y)	Consumption (C)	Saving (S)
0	15	-15
10	20	-10
20	25	-5
30	30	0
40	35	5

➤ Saving Curve



Observations

- (a) S is a positively slope saving curve, which shows the direct relationship between saving and income (When income increases savings also increase and vice-versa)
- (b) Zero level of income ($Y=0$), there is dissaving, which is equal to autonomous consumption.
- (c) After the BEP (**B point**), savings are positive with increase income.

➤ Propensity to Save

It shows the amount that will be saved at different level of income

➤ Types of Propensity to Save

- (a) **Average Propensity to Save (APS)** – It is the ratio between Total Saving (S) and Total National Income (Y) of the economy.

$$APS = \frac{S}{Y}$$

➤ **Average Propensity to Save (APS) Schedule**

Income (Y)	Saving (S)	APS ($\frac{S}{Y}$)
0	-15	----
10	-10	-1
20	-5	-0.25
30	0	0
40	5	0.125

➤ **Features of Average Propensity to Save (APS)**

- (a) As income increases, APS also increases (Positive relation between Income and Savings)
- (b) APS can be negative, when consumption expenditure (C) is higher than income (Y)
- (c) APS can be zero, when consumption expenditure is equal to income i.e., (APC = 1)
- (d) APS can never be more than one because savings can never be more than income.

➤ **Marginal Propensity to Save (MPS) –** It is the ratio between Change in saving (ΔS) and Change in National Income (ΔY) of the economy.

$$\text{MPS} / (1-b) = \frac{\Delta S}{\Delta Y}$$

➤ **Marginal Propensity to Consume (MPC) Schedule**

Income (Y)	Saving (S)	ΔY	ΔS	MPS ($\frac{\Delta S}{\Delta Y}$)
0	-15	----	----	----
10	-10	10	5	0.5
20	-5	10	5	0.5

30	0	10	5	0.5
40	5	10	5	0.5

➤ **Features of Marginal Propensity to Save (MPS)**

- (a) Value of MPS lies between 0 and 1
- (b) If entire additional income (ΔY) is saved then, $MPS = 1$
- (c) If entire additional income (ΔY) is consumed then, $MPS = 0$
- (d) MPS is high in the case of rich people and low in the case of poor.
- (e) MPS of underdeveloped or developing countries is lower than developed countries.

➤ **Relation between Average Propensity to Consume (APC) and Average Propensity to Save (APS)**

(a) $APC + APS = 1$

$$\frac{C}{Y} + \frac{S}{Y} = \frac{C+S}{Y}$$

$$\frac{C+S}{Y} = \frac{Y}{Y}$$

$$\frac{Y}{Y} = 1$$

(b) $APC = 1 - APS$

(c) $APS = 1 - APC$

➤ **Relation between Marginal Propensity to Consume (MPC) and Marginal Propensity to Save (APS)**

(a) $MPC + MPS = 1$

$$\frac{\Delta C}{\Delta Y} + \frac{\Delta S}{\Delta Y} = \frac{\Delta C + \Delta S}{\Delta Y} \qquad \Delta Y = \Delta C + \Delta S$$

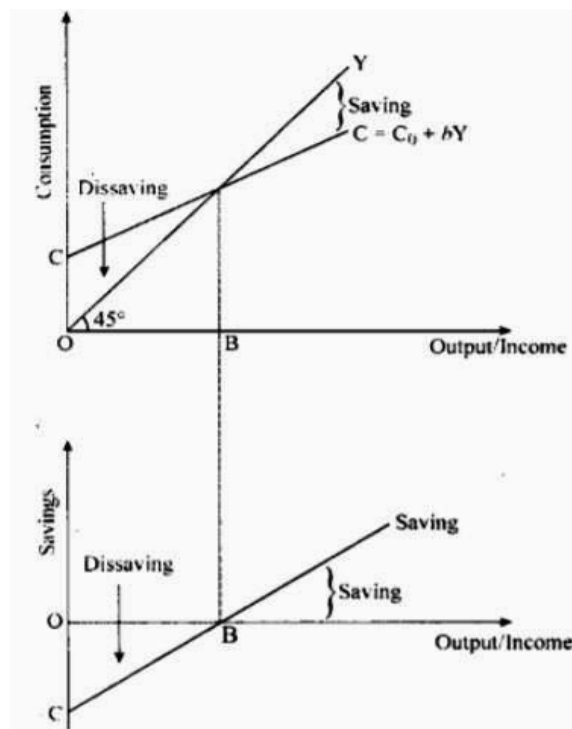
$$\frac{\Delta C + \Delta S}{\Delta Y} = \frac{Y}{Y}$$

$$\frac{Y}{Y} = 1$$

(b) $MPC = 1 - MPS$

(c) $MPS = 1 - MPC$

➤ **Derivation of Saving Curve from Consumption Curve**

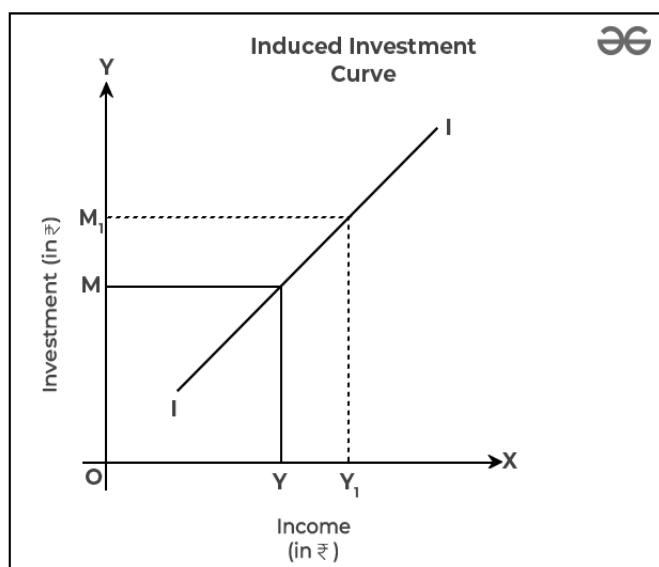


Observations -

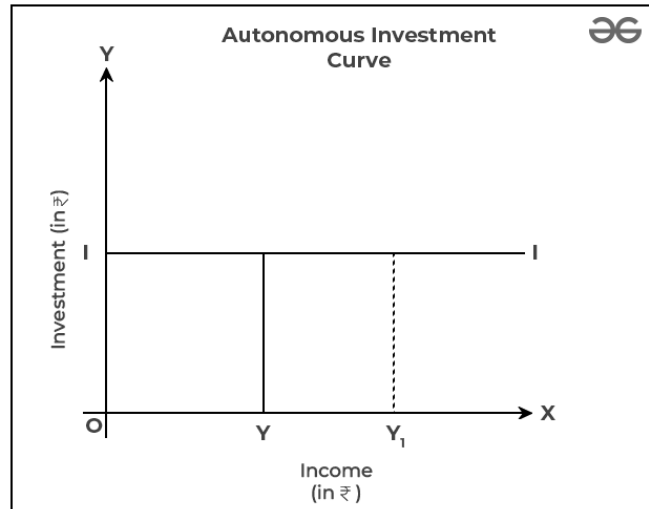
- The 45° positive line curve is Income curve.
- The consumption curve will draw above the income curve.
- The gap of OC is dissaving, because consumption expenditure (C) is more than Income (Y)
- Sometime both curves (Consumption and Income) are intersect to each other, and the situation is Breakeven point ($C=Y$)
- The saving curve drawn below the ox – axis, its shows negative, i.e. dissaving.
- Then the saving curve positive above the ox-axis, i.e savings.
- When Consumption expenditure and Income are equal to each other ($C=Y$), in this situation Saving is Zero ($S=0$) at point B.

➤ Types of Investment

- a) **Induced Investment** – It refers to the investment which is made with the motive of earning profit as is done by the private sector.



- b) Autonomous Investment** – It refers to the investment which is independent of the level of income as is generally done in government sector. It is not affected by change in income level.



- **Ex-ante Saving** – The savings which are planned to be made by all the households at different levels of income in the economy during a period.
- **Ex-ante Investment** – The investment which is planned or desired to be made by the firms or entrepreneur at different levels of income in the economy during a period.
- **Ex-post saving** – The actual or realized saving in an economy during a year.
- **Ex-post investment** – The actual addition in the capital stock of an economy is termed as ex- post or actual investment during the year.
- **Concept of Unemployment and Employment**
 - a) Involuntary Unemployment** – It occurs when those who are able and willing to work at the prevailing wage rate do not get work.
 - b) Voluntary Unemployment** – It refers to a situation when people are not willing to do work although work is available for them.
 - c) Full Employment** – It refers to a situation in which every able person who is willing to work at prevailing wage rate is employed.

Solved Numericals

1. If the value of Average Propensity to Save is (-) 0.6, what will be the value of Average Propensity to Consume?

Solution

Here, Average Propensity to Save (APS) = -0.6

Hence, Average Propensity to Consume (APC) = $1 - \text{APS} = 1 - (-0.6) = 1.6$

Average Propensity to Save (APS) = 1.6

2. If the value of Average Propensity to Consume is 1.5, what will be the value of Average Propensity to Save?

Solution

Here, Average Propensity to Consume (APC) = 1.5

Now, we know that

Average Propensity to Save (APS) = $1 - \text{APC}$

So, Average Propensity to Save (APS) = $1 - 1.5 = -0.5$

3. Calculate APC and APS from the following schedule

Income (Y)	100	200	300
Consumption (C)	80	120	180

Solution:

Income in (Y) ₹	Consumption in (C) ₹	Savings in (S) ₹	APC C/Y = APC	APS S/Y = APS
100	80	20	$80/100=0.80$	$20/100=0.20$
200	120	80	$120/200=0.60$	$80/200=0.40$
300	180	120	$180/300=0.60$	$120/300=0.40$

1. If APS is 0.6, then how much will be APC?

Answer:

$$APC = 1 - APS$$

$$= 1 - 0.6$$

$$= 0.4$$

2. If MPC is 0.75, then how much will be MPS?

Answer:

$$MPS = 1 - MPC$$

$$= 1 - 0.75$$

$$= 0.25$$

3. If the saving function, $S = 120 + 0.3Y$, then what will be the value of MPC?

Answer:

0.3 indicates that $MPS = 0.3$

$$\text{So, } MPC = 1 - MPS$$

$$= 1 - 0.3$$

$$= 0.70$$

CHAPTER 8

INCOME DETERMINATION & MULTIPLIER

Meaning of Equilibrium –

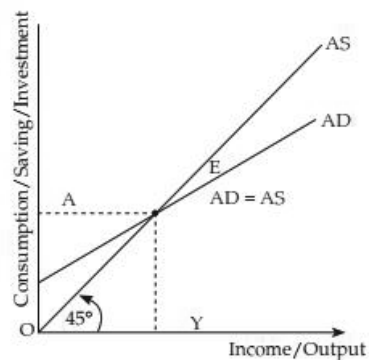
Where Aggregate Demand (AD) is equal to Aggregate Supply (AS) and level of planned saving equals planned investment.

$AD = AS$ $C+I = C+S$ $I = S$

➤ Two Approaches of Determination

- (a) AD = AS Approach
- (b) I = S Approach

➤ AD = AS Approach



➤ **There are two main economic situation under AD=AS Approach**

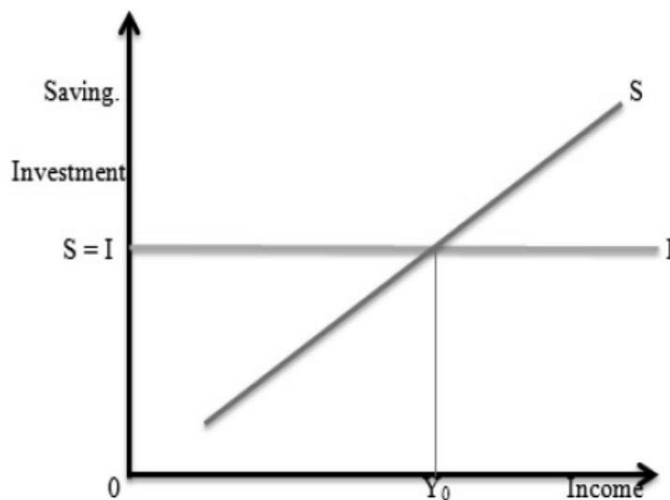
❖ **When $AD > AS$**

- a) If Aggregate Demand (AD) is greater than Aggregate Supply (AS), then firm start producing more planned spending is more than planned output, the producers find the stocks falling below the desired level. Existing stock (Inventory) of producers would be sold.
- b) Producers respond by producing more output.
- c) More output means generate more national income in the economy.

❖ **When $AD < AS$**

- a) When Aggregate Supply (AS) is greater than Aggregate Demand (AD), it means the flow of goods and services in the economy tends to exceed their demand.
- b) To clear unwanted stock (inventory), the firms would plan for less production.
- c) Decrease in production and Decrease in National Income in the economy.

➤ **S=I Approach**



➤ **There are two main economic situation under $S=I$ Approach**

❖ **When $S > I$**

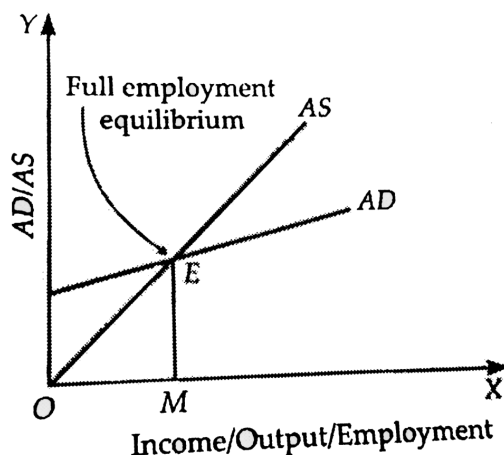
- In this level, the household savings are more than firms planned investment.
- As a result, there will be undesired or unplanned stocks of unsold goods in the economy.
- Lesser output implies lesser investment in the economy.
- Lesser employment implies lesser national income in the economy.

❖ **When $S < I$**

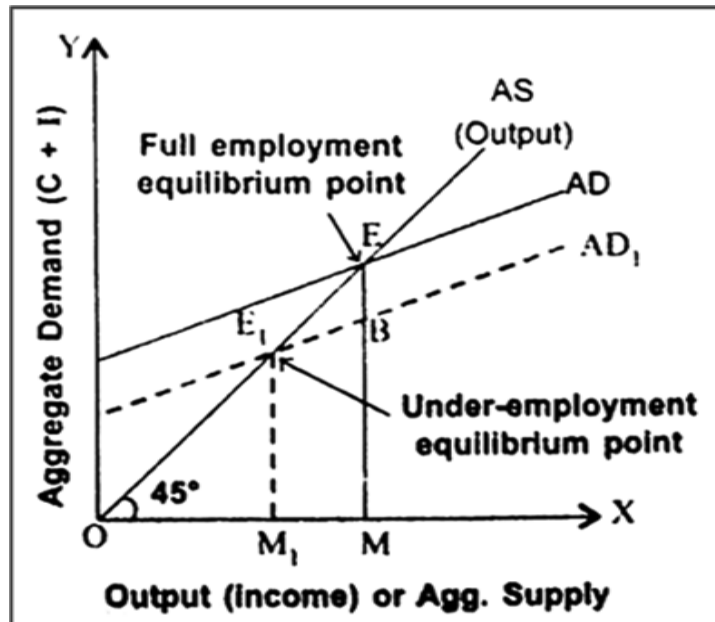
- At this level of income household savings are less than firms planned investment.
- There will be an undesired unplanned reduction of stock (Inventory) of unsold goods in the economy.
- Increase in output implies increase in investment in the economy.
- Increase in employment implies increase in national income in the economy.

➤ **Full Employment, Under Employment and Over Employment Equilibrium**

- Full Employment Equilibrium** – It is a situation when all resources in an economy are fully utilised.



- b) Under Employment Equilibrium – It is a situation when resources are not fully employed.



- c) Over Employment Equilibrium -It is a situation when resources are fully employed at beyond the equilibrium level.

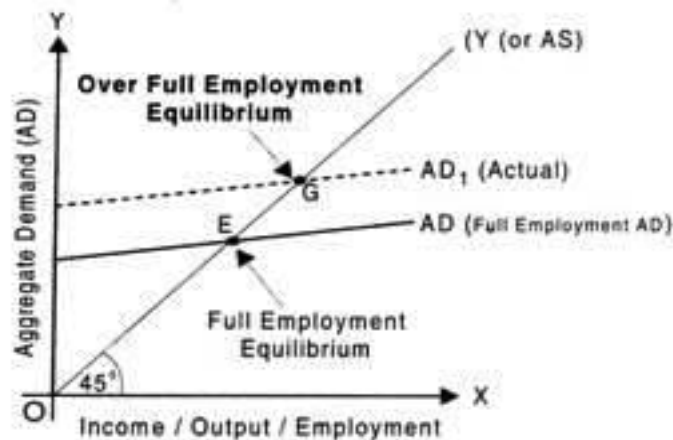


Fig. 8.5

➤ **Concept of Investment Multiplier (k)**

It is the ratio of change in national income(ΔY) to the change in Investment (ΔI)

$$k = \frac{\Delta Y}{\Delta I}$$

Example: Investment increases by Rs. 50 cr. and as a result, national income increases by Rs. 200 cr. find the value of multiplier.

Solution:

$$k = \frac{\Delta Y}{\Delta I}$$

$$k = \frac{200}{50}$$

$$k = 4$$

➤ **Relationship between Multiplier (k) with Marginal Propensity to Consume (MPC) and Marginal Propensity to Save (MPS)**

a) Relation between Multiplier (k) and Marginal Propensity to Consume (MPC)

MPC	Multiplier (k)
Higher	Higher
Lower	Lower

The direct relation between Marginal Propensity to Consume (MPC) and the value of Multiplier (k). Higher the value of Marginal Propensity to Consume (MPC), higher will be the value of multiplier (k) and vice-versa.

$$k = \frac{1}{1 - MPC}$$

Example 1: If the value of MPC is 0.4, then what is the value of multiplier?

$$\text{Solution: } k = \frac{1}{1-MPC}$$

$$k = \frac{1}{1-0.4}$$

$$k = \frac{1}{0.6}$$

$$k=1.67$$

Example 2: If the value of MPC is 0.6, then what is the value of multiplier?

$$\text{Solution: } k = \frac{1}{1-MPC}$$

$$k = \frac{1}{1-0.6}$$

$$k = \frac{1}{0.4}$$

$$k=2.5$$

Relation between Multiplier (k) and Marginal Propensity to Save (MPS)

MPS	Multiplier (k)
Higher	Lower
Lower	Higher

The inverse relation between Marginal Propensity to Save (MPS) and the value of Multiplier (k). Higher the value of Marginal Propensity to Save (MPS), lower will be the value of multiplier (k) and vice-versa.

$$k = \frac{1}{MPS}$$

Example 1: If the value of MPS is 0.2, then what is the value of multiplier?

Solution: $k = \frac{1}{MPS}$

$$k = \frac{1}{0.2}$$

$$k = 5$$

Example 2: If the value of MPC is 0.5, then what is the value of multiplier?

Solution: $k = \frac{1}{MPS}$

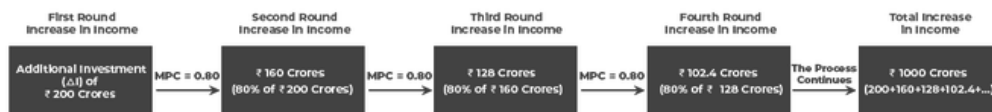
$$k = \frac{1}{0.5}$$

$$k = 2$$

➤ **Maximum and Minimum value of Multiplier**

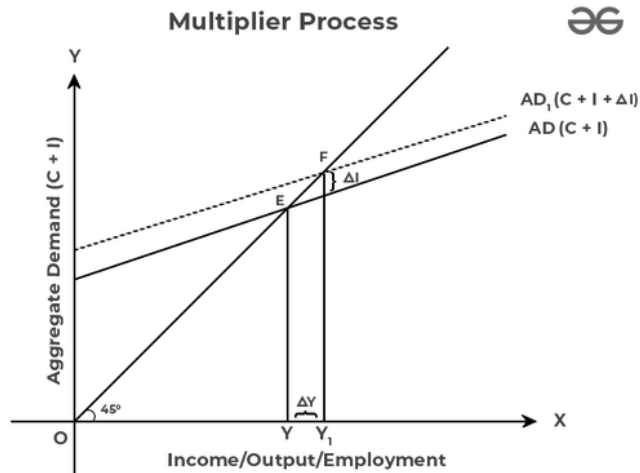
- a) Maximum Value of multiplier (k) is infinity (∞)
- b) Minimum value of multiplier (k) is 1

Working of Investment Multiplier

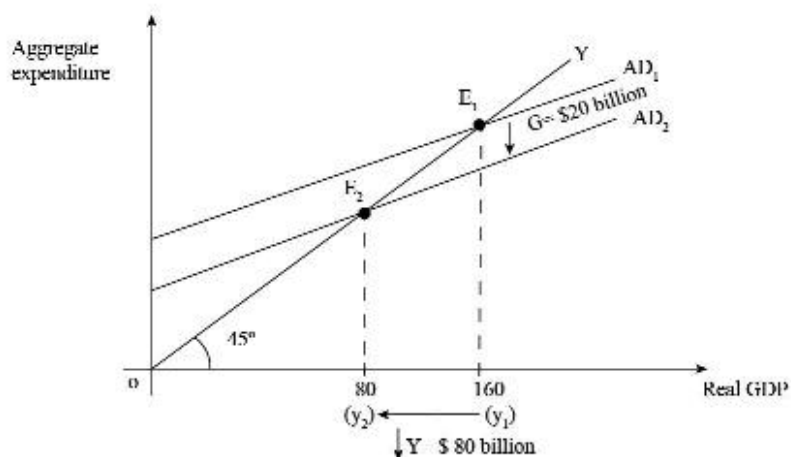


➤ **Forward and Backward operation of the Multiplier**

- a) **Forward Operation of the Multiplier** – It indicates that an increase in investment leads to several times more increase in ultimate income.



- b) **Backward Operation of the Multiplier** – It indicates that a decrease in investment leads to several times more decrease in ultimate income.



Solved Numericals

Question 1

Calculate multiplier if MPC is : (i) 0.75 (ii) 0.90

Solution:

(i) $K = 4$

(ii) Multiplier (k) = 10

Question 2

Calculate the value of multiplier if the MPS is: (a) 0.40 (b) Equal to MPC

Solution:

(a) Multiplier (k) = $\frac{1}{\text{MPS}}$, =, $\frac{1}{0.40}$, =, 2.5

(b) If MPS = MPC, then MPS = 0.5

Multiplier (k) = $\frac{1}{\text{MPS}}$, =, $\frac{1}{0.5}$, =, 2

Question 3

In an economy, income generated is four times the increase in investment expenditure. Calculate the values of MPC and MPS

Solution:

Multiplier 4

(a) Multiplier (k) = $\frac{1}{1-\text{MPC}}$,

$4 = \frac{1}{1-\text{MPC}}$,

$1 - \text{MPC} = \frac{1}{4}$,

MPC = 0.75

MPS = $1 - \text{MPC}$

= $1 - 0.75$

MPS = 0.25

Question 4

In a two-sector economy, the saving function is given as $S = -10 + 0.2Y$ and investment function is expressed as $I = -3 + 0.1Y$. Calculate the equilibrium level of income?

Solution: Equilibrium level of income (Y) is attained when $S = I$. It means:

$$-10 + 0.2Y = -3 + 0.1Y$$

$$0.2Y - 0.1Y = -3 + 10$$

$$0.1Y = 7$$

$$Y = 70$$

Equilibrium level of income = 70

CHAPTER 9

PROBLEMS OF EXCESS DEMAND AND DEFICIENT DEMAND

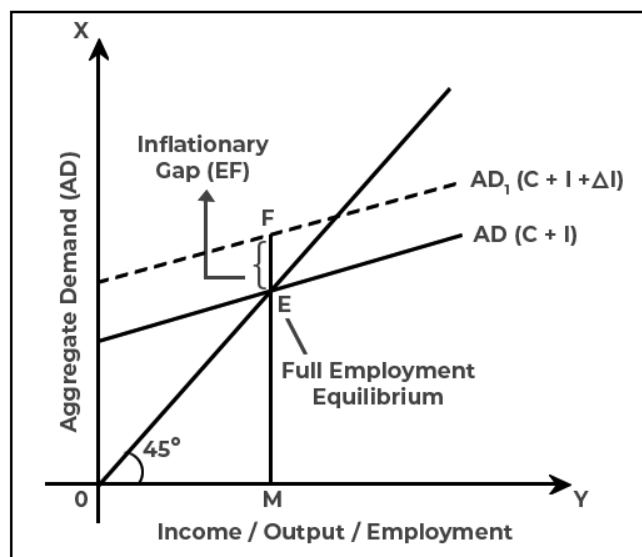
Excess Demand

The excess of Aggregate Demand (AD) over Aggregate Supply (AS) at full employment level in the economy is called Excess Demand.

$$AD > AS$$

It gives rise to an inflationary gap, which causes rise in the price level i.e. inflation.

Excess Demand and Inflationary Gap



Causes or Reason for Excess Demand

- Increase in household consumption expenditure due to rise in **propensity to consume** and falls in **propensity to save**.
- Increase in private investment demand because of rise in credit facilities or **decrease in rate of interest**.
- Increase in government expenditure.
- Rise in exports and fall in imports.
- Increase in money supply by deficit financing.
- Increase in disposable income because of reduction in taxes.

Impact of Excess Demand

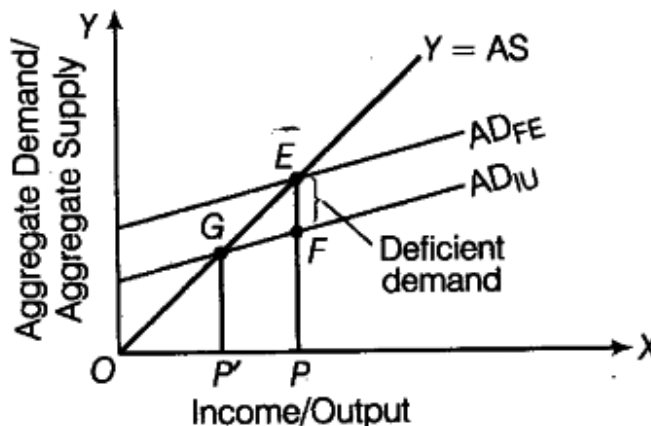
- Employment will unchanged (constant), because all the resources are fully employed.
- Output does not change due to full employment level.
- General Price level is increase, inflation.

Deficient Demand

The excess of Aggregate Supply (AS) over Aggregate Demand (AD) at full employment level in the economy is called Excess Supply.

$AS > AD$

It causes fall in the price level i.e. deflation. It creates deflationary gap.



Causes or Reason for Deficient Demand

- a) Decrease in household consumption expenditure due to fall in **propensity to consume** and rise in **propensity to save**.
- b) Decrease in private investment demand because of fall in credit facilities or **increase in rate of interest**.
- c) Decrease in government expenditure.
- d) Fall in exports and rise in imports.
- e) Decrease in money supply.
- f) Decrease in disposable income because of rise in taxes.

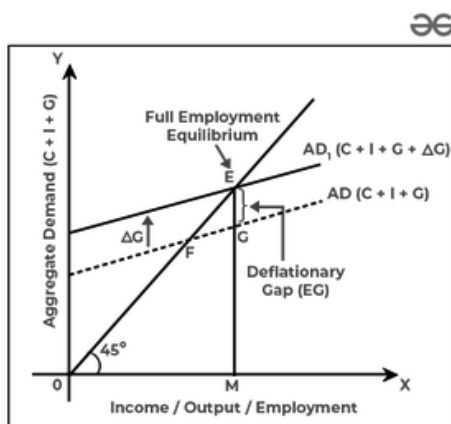
Impact of Excess Demand

- a) Employment will decrease, due to involuntary unemployment.
- b) Fall in output, due to rise in inventory stock
- c) General Price level is decrease, i.e deflation.

Measures to Correct or Control Excess Demand and Deficient Demand

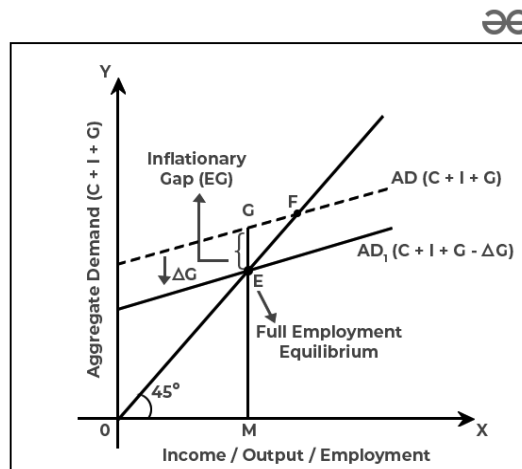
➤ Correct to Excess Demand due to Fiscal Policy

- a) Government Increases the tax rates and Reduces the expenditure on roads, buildings, health, education etc.
- b) Government decreases subsidies.



➤ **Correct to Deficient Demand due to Fiscal Policy**

- Government Decreases the tax rates and Increases the expenditure on roads, buildings, health, education etc.
- Government Increases subsidies.



➤ **Correct to Excess Demand due to Monetary Policy**

- Repo Rate is increase.
- Bank Rate is increase.
- Cash Reserve Ratio and Statutory Liquidity Ratio is increase.
- Sale in government securities to the general public.
- Rise in Margin Requirement for collateral security.

➤ **Correct to Deficient Demand due to Monetary Policy**

- Repo Rate is decreases.
- Bank Rate is decrease.
- Cash Reserve Ratio and Statutory Liquidity Ratio is decrease.
- Purchase in government securities from general public.
- Fall in Margin Requirement for collateral security.
- Give more credit facilities to business firms, services etc.

UNIT – IV

GOVERNMENT BUDGET

CHAPTER 10

GOVERNMENT BUDGET AND THE ECONOMY

➤ **Meaning / Definition**

It is an annual statement of estimate expenditure and estimate receipts of government in a one accounting year.

➤ **Objectives of government Budget**

- a) **Reallocation of resources** – Under budget, government reallocate the resources with according with profit maximisation and public welfare of the country. Government charged heavy tax for discourage harmful products (like liquor, cigarettes etc.) and encourage khadi products through subsidies. Public goods like (water supply, sanitation, law and order, defence etc.) are undertaken by the government and raise social welfare.
- b) **Reducing inequalities in income and wealth** – Government aims to distribution of income by imposing tax rates and spending more for the poor people. Government increases the tax rates to rich people and subsidies given to the poor people. For example, Ujjwala yojana, Indira Gandhi Awas yojana etc.
- c) **Economic Stability** – Government budget is a tool to prevent economy from the inflation or deflation and to maintain economic stability. Government can bring stability in economy to avoiding fluctuation in prices through taxes and expenditure. In case of inflation, government can reduce its own expenditure or increase the tax rates. On the other hand, in case of deflation, government can increase its own expenditure or reduces the tax rates or give tax concessions.

- d) Economic Growth** – It implies increase in volume of goods and services produced in an economy that means sustainable increase in real GDP of an economy. If the government provides tax rebates for productive ventures and projects, it can stimulate savings and investments in an economy.
- e) Managing Public Enterprises** – In the government budget can make various provisions to manage public sector industries and also provides them financial help.

Structure of Government budget

(a) Budget Receipt

(b) Budget Expenditure

Budget Receipt – It refers to estimate receipts during a fiscal year. These are classified as:

- (a) Revenue Receipt** – It refers to those receipts which neither create a liability nor reduce in assets.

Types of Revenue Receipts:

(b) Tax Revenue Receipts

(c) Non – Tax Revenue Receipts

- (d) Tax Revenue Receipts** – Tax is a compulsory payments imposed by the government.

Types of tax –

- (a) Direct Tax** - These are those taxes, which burden cannot be shifted to others.
For example – Income tax, Corporate tax, wealth tax etc.
- (b) Indirect Tax** – These are those taxes, which burden can be shifted. *Ex – GST (Goods and Service Tax)*
- (c) Non – Tax Revenue Receipts** – These are those receipts which are received from other than tax sources.
 - 1. Fees
 - 2. Fines and penalties
 - 3. Interest
 - 4. Escheats
 - 5. Gifts and Grants

- **Fees** – A fee is that revenue which is paid to the government for the special services rendered by it. *For example, passport fees, registration fees, government school fees etc.*
- **Fines and Penalties** – These are those payments which are made for breaking a law.
- **Interest** – It is paid by the state and local governments, private enterprises and general public loans given by the government.
- **Escheats** – Under the right of escheat, the government may acquire the property, bank balances etc., of the person who dies without any legal documents.
- **Gift and Grants** – Gifts which are received by the government from the rest of the world, citizens of the country and foreign organisation.

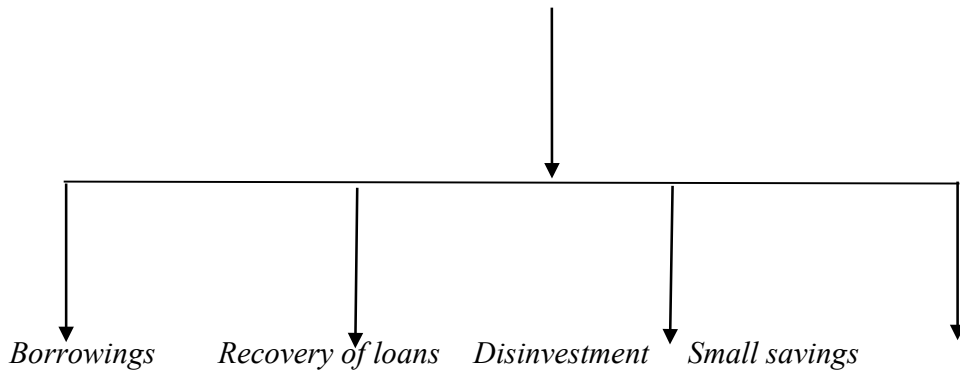
➤ **Difference between Direct Tax and Indirect Tax**

Basis	Direct Tax	Indirect Tax
Scope	Levied on the property and income	Levied on production and sale of the commodities
Shifting	The burden cannot be shift	The burden can be shift
Nature	Progressive in nature	Proportional in nature
Example	Income tax, corporate tax, wealth tax etc.	Sales Tax, excise duty etc.

- (a) Capital Receipt** – It refers to those receipts which either create liability or reduction in the assets of the government.

➤ **Components of Capital Receipts**

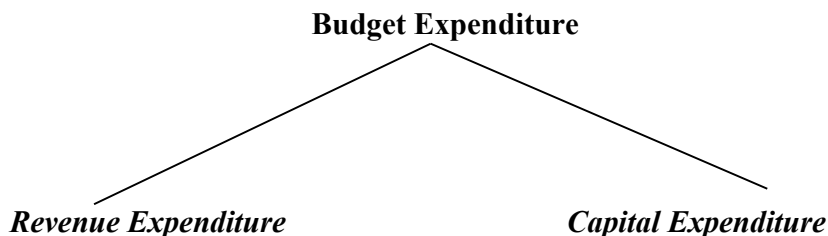
Components



<i>Basis</i>	<i>Revenue Receipts</i>	<i>Capital Receipts</i>
Meaning	It refers to the receipts are the government receipts that neither create a liability nor reduce an asset.	It refers to the receipts are the government receipts that either create a liability or reduce an asset.
Nature	Revenue Receipts are regular and recurring in nature.	Capital receipts are irregular and non-recurring in nature.
Example	Tax revenue, non –tax revenue receipts	Borrowings, disinvestment etc.

➤ Budget Expenditure

It refers to the estimated expenditure to be incurred by the government during a given fiscal year.



- **Revenue Expenditure** – These are that expenditure which neither creates assets nor reduces any liability of the government. Ex- Salaries, pensions, interest payments, subsidies, grants etc.
- **Capital Expenditure** – These are that expenditure which either creates any asset or reduce liability of the government. Ex – Exp. on purchasing assets, land and buildings, equipment, purchase of shares, repayment of loans etc.

Basis	Revenue Expenditure	Capital Expenditure
Meaning	It is regular or recurring in nature	It irregular or non-recurring in nature.
Finance	It is financed out revenue receipt	It is financed out of borrowings from the public and foreign government.
Examples	Salary of employees, pension, interest etc.	Repayment of loan, expenditure on construction etc.

➤ Plan and Non- Plan Expenditure

(a) Plan Expenditure – It refers to the expenditure incurred on various projects and development programmes covered under the current five year plan.

Ex – Irrigation, energy, minerals, industry, transport etc.

(b) Non- Plan Expenditure – It refers to the expenditure on projects other than the expenditure related to the current five year plan.

Ex – interest payments, expenditure of defence services, subsidies etc.

➤ **Development and Non- Development Expenditure**

(a) Development Expenditure – Expenditure incurred on activities which are directly related to economic and social development of the country is called development expenditure. *Ex –expenditure on health, industries, agriculture etc.*

(b) Non – Development Expenditure – Expenditure incurred on providing essential services by the government is treated as non-plan expenditure.

Types of Budgets

(a) Balanced Budget – When estimated expenditure and estimated receipts are equal to each other of the government is called balanced budget.

Balanced Budget - Receipts = Expenditure

(b) Surplus Budget – When estimated receipts are more than estimated expenditure of the government is called surplus budget.

Balanced Budget - Receipts > Expenditure

(c) Deficit budget – When estimated expenditure is more than estimated receipts is called deficit budget.

Deficit Budget – Expenditure < Receipts

➤ **Budget Deficit**

It refers to a situation when budget expenditure of the government is greater than budget receipts.

BD = BE – BR

➤ Types of Budget Deficit:

The budgets are of three types, which are given below:

(a) Balanced Budget

(b) Surplus Budget

(c) Deficit Budget

(a) Balance Budget – When estimated expenditure and estimated receipts are equal to each other of the government is called balanced budget.

$$\text{Balanced Budget} = \text{Receipts} = \text{Expenditure}$$

(b) Surplus Budget – When estimated receipts are more than estimated expenditure of the government is called surplus budget.

$$\text{Surplus Budget} = \text{Receipts} > \text{Expenditure}$$

(c) Deficit Budget – When estimated expenditure is more than estimated receipts is called Deficit Budget.

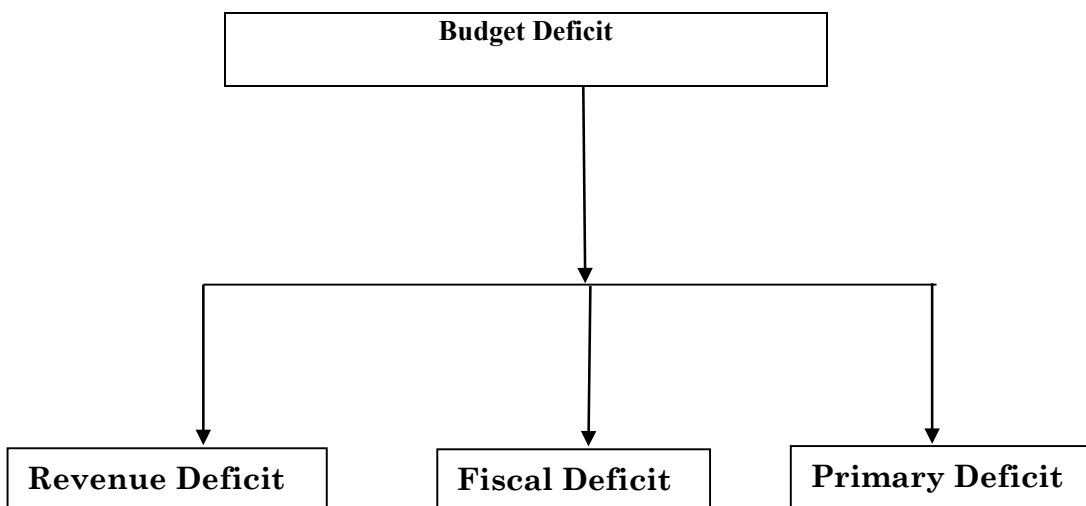
$$\text{Deficit Budget} = \text{Expenditure} > \text{Receipts}$$

Budget Deficit

It refers to a situation when budget expenditure of the government is greater than budget receipts.

$$\text{Budget Deficit (BD)} = \text{Budget Expenditure (BE)} - \text{Budget Receipts (BR)}$$

$$\text{Budget Deficit (BD)} = \text{Total Expenditure (TE)} - \text{Total Receipts (TR)}$$



(a) Revenue Deficit (RD) - It is excess of government total revenue expenditure (RE) over total revenue receipt (RR) during a given fiscal year.

Revenue Deficit (RD) = Revenue Expenditure (RE) - Revenue Receipts (RR)

➤ **Implications –**

- (a) The Revenue Deficit includes only those transactions that affect the current income and expenditure of the government.
- (b) It implies that the government has to finance it from capital receipts (through borrowings or sale of its assets)
- (c) Borrowed funds are used to finance consumption requirements of the government leading to inflationary situation in the economy.

Fiscal Deficit (FD) – It is the excess of total expenditure (TE) over total receipts (TR) excluding borrowings during a given fiscal year.

Fiscal Deficit (FD) = Total Expenditure (TE) - Total Receipts (TR) (other than borrowings)

OR

Fiscal Deficit (FD) = Total Expenditure (TE) - Revenue Receipts (RR) + Non-Debt creating capital receipt)

Fiscal Deficit (FD) = Borrowings

The fiscal deficit will have to be financed through borrowings. Thus it indicates the total borrowings requirements of the government from all sources.

(Net Borrowings at home + Borrowings from Central Bank + Borrowings from Abroad)

➤ **Implications –**

- (a) Debt Trap** – Greater Fiscal deficit implies greater borrowings. This increases the future liability of the government in the form of payment of interest and repayment of loans. The government is required to borrow more to pay interest and repay old loans it is known as “Debt Trap”.
- (b) Inflation** – Government generally borrows from RBI. RBI prints more currency to meet the fiscal deficit. It increases the circulation of money supply in the economy and causes inflation.

(c) Increase in Foreign Dependence –Government can borrow from rest of the world. It increases the dependence of government on other countries.

(d) Hampers in Future growth – The Financial burden of borrowings will be on future generations. It hampers the future growth and development of the economy.

➤ **How is Fiscal Deficit met or financed?**

(a) Borrowings

(b) Deficit Financing (*Printing of New Currency*)

(a) Borrowings – It can be met by borrowings from –

1. Domestic sources public
2. Commercial banks
3. External Sources – Foreign government and International Organisations etc.

(b) Deficit Financing – Government can borrow money from Central Bank. RBI can print currency notes to the extent of the deficit against government securities. It is known as deficit financing.

Primary Deficit (PD)

It is the difference between Fiscal Deficit of current year and interest payment of previous year. **Primary Deficit (PD) = Fiscal Deficit (FD) – Interest Payment (IP)**

SOLVED NUMERICALS

Question 1.

In a government budget, the revenue deficit is ₹35 crores. If the revenue receipts are ₹70 crores and capital expenditure is ₹120 crores, then how much is the revenue expenditure?

Solution:

Revenue deficit = Revenue expenditure – Revenue receipt

₹35 crores = Revenue expenditure – ₹70 crores

Revenue Expenditure = ₹35 crores + ₹70 crores

= ₹105 crores

Question 2

The interest requirement as per the government budget during a year is ₹1,40,000 crores. If the total borrowing requirements of the government are estimated at ₹2,70,000 crores, then how much is the primary deficit?

Solution:

Total borrowing requirements of the government are estimated at ₹2,70,000 crores. It means,

Fiscal deficit = ₹2,70,000

Primary deficit = Fiscal deficit – Interest payment

Primary deficit = ₹2,70,000 crores – ₹1,40,000 crores

= ₹1,30,000 crores

Question 3

In a government budget, the primary deficit is ₹12,000 crores and interest payment is ₹7,000 crores. How much is the fiscal deficit?

Solution:

Primary deficit = Fiscal deficit – Interest payment

₹12,000 crores = Fiscal deficit – ₹7,000 crores

Fiscal deficit = ₹12,000 crores + ₹7,000 crores
 = ₹19,000 crores

Question 4

As per the government budget, the interest payments are estimated at ₹10,000 crores, which is 40% of the primary deficit. Calculate the fiscal deficit.

Solution:

Let primary deficit = x

₹10,000 crores = 40% of x = 0.40 x

x = ₹10,000 crores / 0.40 = ₹25,000 crores

Primary deficit = Fiscal deficit – Interest payment

₹25,000 crores = Fiscal deficit – ₹10,000 crores

Fiscal deficit = ₹25,000 crores + ₹10,000 crores

= ₹35,000 crores

Question 5

From the given table, Find the following:

(a) Fiscal deficit

(b) Primary deficit

Particulars	(₹ in crores)
Revenue expenditure	70,000
Borrowings	15,000
Revenue receipt	50,000
Interest payment	25% of revenue deficit

Solution:

Revenue deficit = Revenue expenditure – Revenue receipt

Revenue deficit = ₹70,000 crores – ₹50,000 crores = ₹20,000 crores

Interest payment = 25% of revenue deficit = ₹20,000 crores x 25/100[1]
= ₹5,000 crores

(a) Fiscal deficit = Borrowings = ₹15,000 crores

(b) Primary deficit = Fiscal deficit – Interest payment

Primary deficit = ₹15,000 crores – ₹5,000 crores
= ₹10,000 crores

Question 6

From the given information, determine the following:

(a) Capital expenditure

(b) Total expenditure

(c) Interest payments

Particulars	(₹ in crores)
Fiscal deficit	12,000
Revenue deficit	9,000
Primary deficit	5,000
Revenue receipts	6,000
Non-debt capital receipts	10,000

Solution:

(a) Fiscal deficit = Revenue deficit + (Capital expenditure – Non-debt creating capital receipts)

₹12,000 crores = ₹9,000 + (Capital expenditure – ₹10,000)

Capital expenditure = ₹12,000 crores – ₹9,000 crores + ₹10,000 crores
= ₹13,000 crores

(b) Total expenditure = Revenue expenditure + Capital expenditure

Revenue expenditure = Revenue deficit + Revenue receipt

= ₹9,000 crores + ₹6,000 crores

= ₹15,000 crores

Total expenditure = Revenue expenditure + Capital expenditure

= ₹15,000 crores + ₹13,000 crores

= ₹28,000 crores

(c) Primary deficit = Fiscal deficit – Interest payments

₹5,000 crores = ₹12,000 crores – Interest payments

Interest payments = ₹12,000 crores – ₹5,000 crores

= ₹7,000 crores

NCERT QUESTIONS

1. Distinguish between revenue expenditure and capital expenditure.
2. 'The fiscal deficit gives the borrowings requirements of the government'. Elucidate.
3. Give the relationship between revenue deficit and fiscal deficit.
4. Does public debt import the burden? Explain.
5. Are fiscal deficit necessarily inflationary?
6. Discuss the issue of deficit reduction.
7. Explain why public good must be provided by the government?

UNIT – V

BALANCE OF PAYMENT

CHAPTER 11

FOREIGN EXCHANGE RATE

Meaning of Foreign Exchange

Foreign Exchange refers to foreign currency or all currencies other than the domestic currency.

For Example -US Dollar, Pound etc.

Meaning of Foreign Exchange Rate

The rate at which currency of one country can be exchanged for the currency of the other country is called the rate of foreign exchange.

For Example –\$1 = Rs. 85

Types of Exchange Rates

- (i) Fixed Exchange Rate
- (ii) Flexible Exchange Rate
- (iii) Managed Floating Exchange Rate/ Dirty Floating

(i) Fixed Exchange Rate – It is the rate which is officially fixed by the government or financial authority of the country.

Merits are –

- a) Stability
- b) Encourages International trade

- c) Coordination of Macroeconomics policies

Demerits are –

- a) Huge International reserves
- b) Restricted movement of capital
- c) Rigidity in resource allocation

- **Gold Standard System** – Under this system, the value of each currency was determined in terms of gold. This was called as a '*Mint Par Value of exchange*'.

For Example –

If \$1 = 200 gm of gold

Rs. 50 = 200 gm of gold

\$1 = Rs. 50

Now if it changes

\$1 = 200 gm of gold

Rs. 70 = 200 gm of gold

\$1 = Rs. 70

(ii) Flexible Exchange Rate – In which rate of foreign exchange is determined by forces of demand and supply of foreign exchange, it is called flexible exchange rate system. It is the function of demand and supply.

$$R = f(D, S)$$

- **Determination of Flexible Exchange Rate**

- a) Demand for foreign exchange
- b) Supply of foreign exchange

- **Sources of Demand for Foreign Exchange**

- a) To purchase goods and services from foreign countries.

- b) To purchase financial assets in a foreign country.
- c) To send gifts and grants to abroad (transfer payments)
- d) To make payment of International trade (imports)
- e) To make payments for International loans
- f) To undertake foreign tours (Tourism)

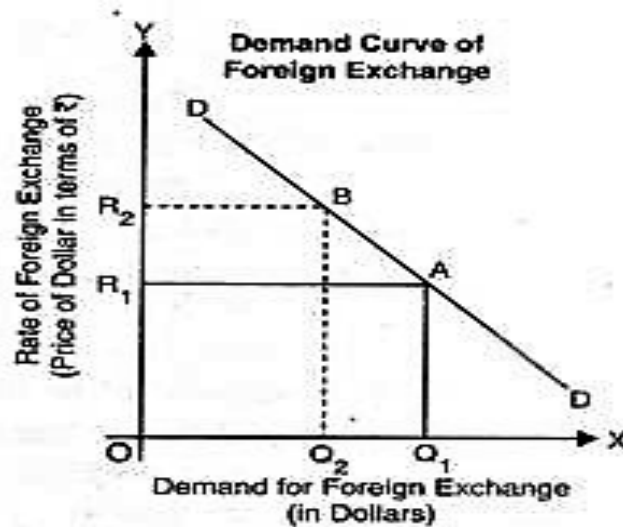
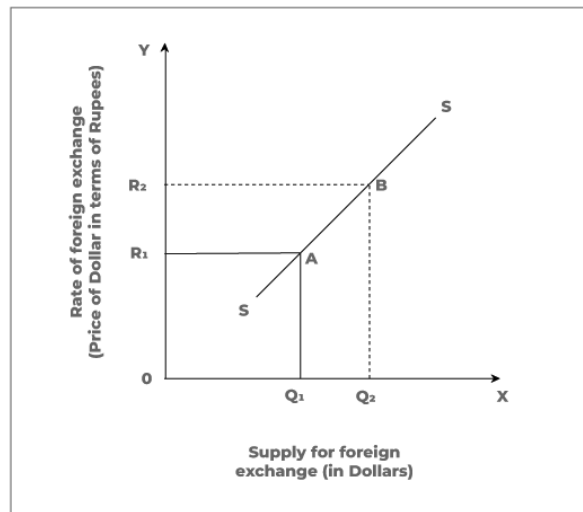


Fig. 11.1

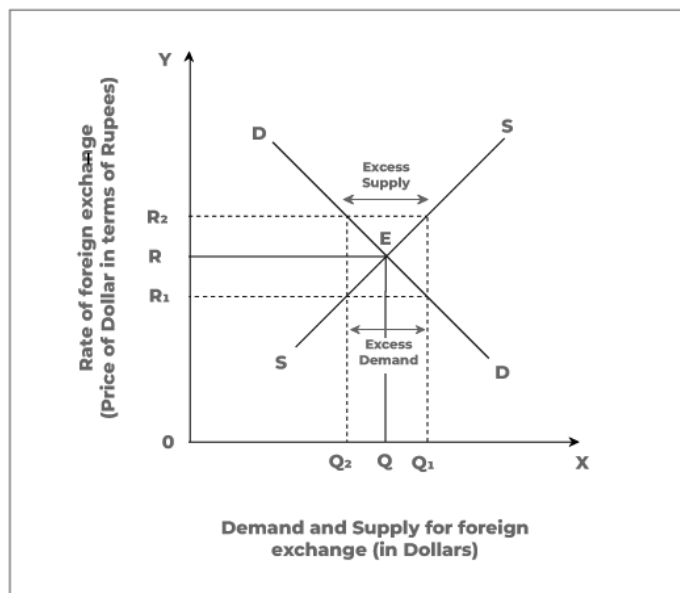
➤ Sources of Supply of Foreign Exchange

- a) Exports of the country to the rest of the world.
- b) Foreign Direct Investment (FDI)
- c) Direct purchase of the goods and services by the non-residents in the domestic market.
- d) Speculative purchase by the non-residents in the domestic market.
- e) Remittances (gifts & grants or transfer payments) by the non-residents living in the foreign countries.



Supply of foreign exchange

➤ **Equilibrium Exchange Rate**



Depreciation and Appreciation of Currency

➤ Depreciation of Indian currency (Increase in the demand for US \$ in India)

It means fall in the value of domestic currency in terms of foreign currency.

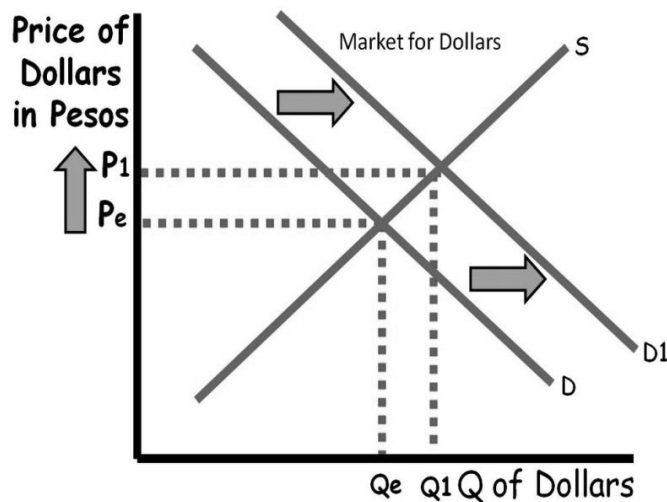
Example –

\$ 1 = Rs.82

\$1 = Rs. 85

Effects are –

1. Increase in exports
2. Decrease in imports
3. Increase in National income



➤ Appreciation of Indian currency (Increase in the Supply of US \$ in India)

It means rise in the value of domestic currency in terms of foreign currency.

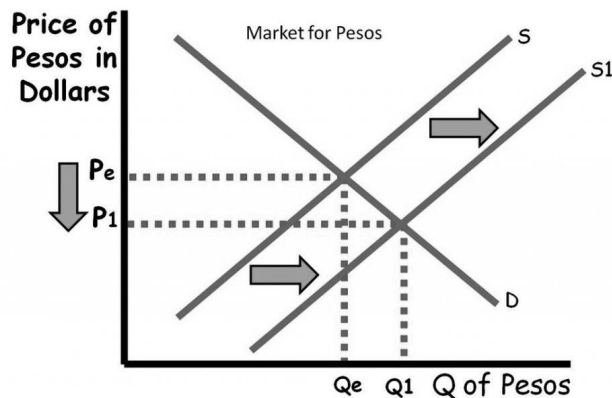
Example –

\$ 1 = Rs.85

\$1 = Rs. 82

Effects are –

1. Decrease in exports
2. Increase in imports
3. Decrease in National income



➤ **Devaluation and Revaluation of the Currency**

1. **Devaluation** – Fall in the value of domestic currency by the government. It is a fixed exchange rate system.
2. **(ii) Revaluation** – Rise in the value of domestic currency by the government. It is a fixed exchange rate system.

➤ **Merits of Flexible Exchange Rate System**

- i. No need for International Reserves
- ii. (ii) Optimum resources allocation
- iii. (iii) International Capital movement

➤ **Demerits of Flexible Exchange Rate System**

- i. Instability
- ii. (ii) Discourages International Trade
- iii. (iii) Macroeconomic Policies

➤ **Managed Floating / Dirty Floating**

It is a rate which can be moderated by the intervention of the Central bank through buying and selling of foreign currencies in the open market.

When Foreign exchange rate is too high, the central bank starts selling the foreign currency from its reserves. When it too low Central bank starts buying foreign currency from foreign exchange market.

➤ **Foreign Exchange Market**

It refers to the market for national currencies of different countries in the world. Types of Foreign exchange market are :

(a) Spot market

Spot Market – The market in which the receipts and payments of foreign exchange are made immediately is called Spot market.

(b) Forward Market

Forward Market – The market in which foreign exchange is bought and sold on a specified future date at a rate agreed upon today, is called forward market.

➤ **Functions of Foreign Exchange Market**

- (b) Transfer Function – It implies transfer of purchasing power in terms of foreign exchange across different countries of the world.
- (c) Credit Function – It implies provisions of credit in terms of foreign exchange for the export and import of goods and services across different countries of the world.
- (d) Hedging Function – It implies protection against the risk related to variations in foreign exchange rate commitments are to be honoured on some future date.

NCERT QUESTIONS

1. How is the exchange rate determined under the flexible exchange rate system?
2. Differentiate between Devaluation and Depreciation.
3. Would the central bank need to intervene in a managed floating system? Explain why?
4. Differentiate between the concept of demand for domestic goods and services and domestic demand for goods and services.
5. If inflation is higher in country A than in country B and the exchange rate between the two countries is fixed, what is likely to happen to the trade balance between the two countries.

CHAPTER 12

BALANCE OF PAYMENT

Balance of payment (BOP) – It is a systematic record of all the economic transactions between residents of a country and the rest of the world, over a given period of time.

➤ **Components of Balance of Payments (BOP)**

(a) Current Account

(b) Capital Account

(a) **Current Account** – It refers to an account which records exports and imports of goods and services and unilateral transfers during a given period of time.

➤ **Components are :**

- i. **Visible trade** (Exports and Imports of goods)
- ii. **Invisible trade** (Exports and Imports of service)
- iii. **Unilateral Transfers** (one side or one way transactions)
- iv. **Income**

(b) **Capital Account** – It refers to an account of BOP records all such transactions between the residents of a country and rest of the world which causes change in the assets or liability of the country or its government.

➤ **Components are :**

1. Investment

(a) FDI (Foreign Direct Investment)

(b) Portfolio Investment

1. **Borrowings and Lending**
2. **Change in Foreign Exchange Reserves (Official Reserves)**

➤ **Autonomous and Accommodating Items in BOP**

1. **Autonomous Items in BOP** – It refers to those international economic transactions which are done for some economic motives such as profit maximisation. It is also known as *“above the line items”*.

Examples – Exports, Imports, Receipts and Payments

2. **Accommodating Items in BOP** – It refers to those transactions which are undertaken to cover the deficit or surplus in balance of payment. It is also known as *“below the line items”*.

Examples – Use of foreign exchange reserves, borrowing by the government from IMF or any foreign monetary Authority etc.

➤ **Disequilibrium in BOP**

It refers to the state of either surplus (Favourable) BOP status or deficit (Unfavourable or adverse) BOP status.

Inflows	Outflows	Net Balance	Position of BOP
More (>)	More (>)	Positive	Disequilibrium
Less (<)	Less (<)	Negative	Disequilibrium

➤ **Causes of Disequilibrium in the BOP (Deficit BOP)**

1. Huge development expenditure
2. Business cycle
3. High rate of inflation
4. Change in the cost structure
5. Increased debt burden
6. Political conditions

➤ **Measures to correct disequilibrium in BOP.**

1. Export Promotion

2. Depreciation

1. Import control
2. Exchange control
3. Devaluation of domestic currency
4. Reducing inflation

➤ **Balance of Trade (BOT) – It is the difference between the money value of exports and imports of goods.**

$$\text{BOT} = \text{Value of exports of visible items (Goods)} - \text{Value of Imports of visible items (Goods)}$$

1. Surplus in BOT = Export (Cash Inflow) > Import (Cash Outflow)
2. Deficit in BOT = Export (Cash Inflow) < Import (Cash Outflow)
3. Surplus in BOP = Export (Cash Inflow) > Import (Cash Outflow)
4. Deficit in BOP = Export (Cash Inflow) < Import (Cash Outflow)

➤ **Balance of Payment always Balance** - In an Accounting sense, BOP accounts are prepared on the basis of double entry system of book-keeping under which receipts (credit side) are always equal to payments (debit side) as a result accounts are always in balance.

➤ **Official reserves Transactions-** Transactions by the central bank that cause changes in its official reserves which are carried out in pursuit of some international economic objectives.

NCERT QUESTIONS

1. Differentiate between balance of trade and current account balance.
2. What are official reserves transactions? Explain their importance in the balance of payments.
3. Should a current account deficit be a cause for alarm? Explain.