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Study Material
(INTRODUCTORY MACROECONOMICS)

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Part A: Introductory Macroeconomics

Unit 1: National Income and Related Aggregates

What is Macroeconomics?

Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.

Circular flow of income (two sector model); Methods of calculating National Income

- Value Added or Product method, Expenditure method, Income method. Aggregates related to National Income:

Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP.GDP and Welfare

Unit 2: Money and Banking

Money – meaning and functions, supply of money - Currency held by the public and net demand deposits held by commercial banks.

Money creation by the commercial banking system.

Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.

Unit 3: Determination of Income and Employment

Aggregate demand and its components.
Propensity to consume and propensity to save (average and marginal). Short-run equilibrium output; investment multiplier and its mechanism. Meaning of full employment and involuntary unemployment.
Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply

Unit 4: Government Budget and the Economy

Government budget - meaning, objectives and components.
Classification of receipts - revenue receipts and capital receipts;
Classification of expenditure – revenue expenditure and capital expenditure. Balanced, Surplus and Deficit Budget – measures of Government Budget deficit.

Unit 5: Balance of Payments

Balance of payments account - meaning and components; Balance of payments – Surplus and Deficit
Foreign exchange rate - meaning of fixed and flexible rates and managed floating. Determination of exchange rate in a free market, Merits and demerits of flexible and fixed exchange rate.
Managed Floating exchange rate system

Unit Wise Weightage of Marks
(Introductory Macroeconomics)

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UNIT 1: National Income and Related Aggregates

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- **What is Macroeconomics?**
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- **Circular flow of income (two sector model); Methods of calculating National Income**
- **Value Added or Product method, Expenditure method, Income method. Aggregates related to National Income**
- **Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP. GDPand Welfare.**

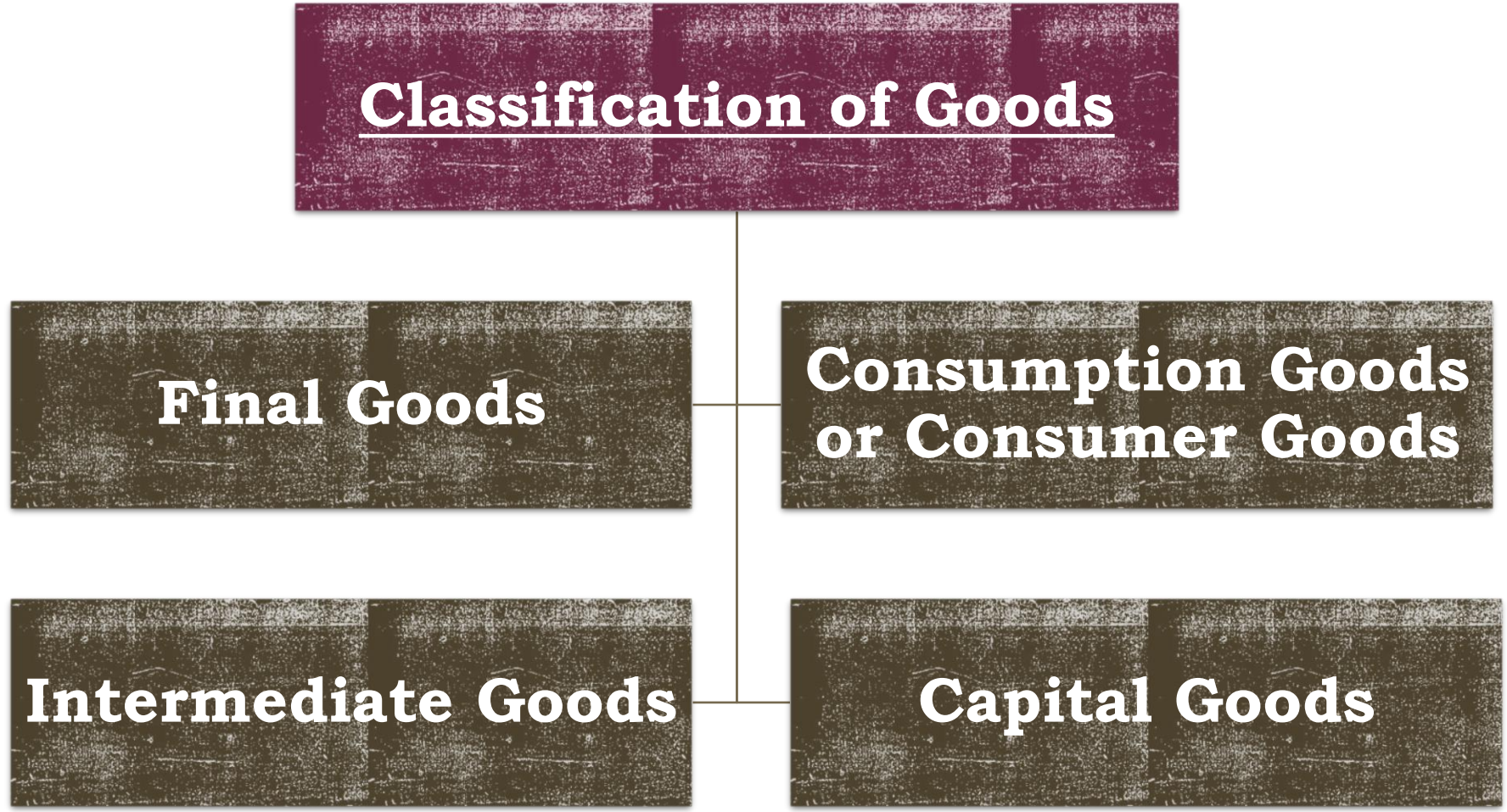
Macroeconomics

Prior to the "GREAT DEPRESSION" of 1930's, Macroeconomics was treated as an extension of Microeconomics. The nosediving of economies of the world caused by 'Great Depression' led to the emergence of Macroeconomics as a separate branch of economics.

Thus, Macroeconomics is that branch of Economics which studies economic problems/issues at the level of the economy as a whole. For e.g. issues relating to level of unemployment, rate of inflation, total output etc. Macroeconomics also studies the manner in which governments can tackle such problems to improve the welfare of all residents of a country.

Classification of Goods

- **Broadly, goods are classified in two ways:**



Consumption Goods or Consumer Goods

Consumption goods (or consumer goods) are those goods which are directly used for the satisfaction of human wants.

They are broadly classified into four categories:

Durable Consumption Goods: **Those goods which can be used for several years and are of relatively high value.**	***Semi Durable Consumption Goods:*** **Those goods which can be used for a period of one year or slightly more.**
Non Durable Consumption Goods or Single Use Consumption Goods: **Those goods which are used up in a single act of consumption.**	***Services:*** **Those non material goods which directly satisfy human wants.**

Capital Goods

Capital goods are fixed assets of the producers. These goods are used in the process of production for several years and are of high value. Use of these goods leads to depreciation. (Loss of value of fixed assets when these are repeatedly used. For example: Plant and Machinery.)

"All capital goods are producer goods, but all producer goods are not capital goods."

Producer goods include:

i. **Goods used as raw material, like wood used to make furniture,**
ii. **Fixed assets lie plant and machinery**

Capital goods include only fixed assets of the producers. These are durable use producer goods.

On the other hand, goods used as raw material are single use producer goods. These are not repeatedly used in the process of production. Accordingly, all producer goods are not capital goods, while all capital goods are producer goods.

Consumption and Capital Goods: TheDifference

Consumption Goods	Capital Goods
Consumption goods lead to directly satisfaction of human wants.	Capital goods do not lead to direct satisfaction of human wants.
These goods are consumed by the households when purchased.	These goods are not consumed by the households. Instead, these are used by the producers for further production.
Expenditure on consumption is called consumption expenditure.	Expenditure on capital goods is called investment expenditure.
Higher production of consumption goods leads to higher level of welfare of the people. It raises the their quality of life.	Higher production of consumption goods leads to higher production capacity in the economy. It is the backbone of GDP growth.

Intermediate and Final Goods :The Difference

Intermediate Goods	Final Goods
These goods remain within the boundary line of production and are not ready for use by their final users.	These goods are outside the boundary line of production and are ready for use by their final users.
Can be used as raw material for production of other goods during an accounting year.	Are not used as raw material for production of other goods during an accounting year.
Can be resold by the form for profit during the accounting year.	Are not resold by the form for profit during the accounting year.
Value is yet to be added to these goods.	Value is not to be added to these goods.
Expenditure on these goods is called intermediate consumption or intermediate cost.	Expenditure on these goods is called final expenditure.
These goods are not included in the estimation of the national income or national product.	These goods are included in the estimation of the national income or national product.

The Same Good May be Final or Intermediate:

- **The same good may be final or intermediate good. The distinction depends on the *end use* of the goods.**

When is it an intermediate good?

- **If the good is used by producers as a raw material, it is to be treated as an intermediate good.**
- **If is purchased and resold by the producer, it is an intermediate good.**

When is it a final good?

- **If it is used as a fixed asset by the producer (example: a tractor used by a farmer), it is a final good.**
- **It is also a final good if goods as purchased by households for consumption.**

STOCKS AND FLOWS: THE DIFFERENCE

STOCK	FLOW
Stock refers to the value of a variable at a point of time.	Flow refers to the value of a variable during a period of time.
Stock is not time dimensional. It is measured at a specific point of time	Flow is time dimensional. It is measured per hour, per month or per year.
Stock impacts the flow. Greater the stock of capital, greater is the flow of goods and services.	Flow impacts the stock. Greater the flow of income, greater is the stock of wealth with the people.
Example: Wealth, Labour Force, Population of a Country, Rice Stored in a Godown.	Example: Income, Expenditure of Money, Number of Births, Sales of Rice

Concept and Components of Investment

Investment refers to capital formation, or a process that increases the stock of capital.

Investment has two components:

i. **Fixed Investment**

Refers to increase in the stock of fixed assets (like plant and machinery) of the producers during an accounting year. Fixed investment is also called fixed capital formation.

Significance of Fixed Investment :

- **Fixed investment raises production capacity of the producers**
- **Fixed investment leads to higher level of output in the economy**
- **Higher level of output leads to higher rate of economic growth/GDP growth**

Concept and Components of Investment

ii. Inventory Investment

At a point of time, producers hold the stock of:

- **Finished goods (unsold goods)**
- **Semi Finished goods**
- **Raw material**

This is called inventory stock. Change in inventory stock during the year is called inventory stock inventory investment of producers.

Significance of Inventory Investment

- **Ensures uninterrupted supply of inputs to the producers**
- **With enough stock of raw material, the producers can avoid uncertainties of the market.**
- **Enables the producers to meet the potential (future) demand for their product.**

Concepts of Gross and Net Investment

Gross Investment	Net Investment
It includes expenditure by the producers on the purchase of new assets as well as expenditure on the replacement of existing assets during an accounting year.	It includes expenditure by the producers on the purchase of new assets only. More specifically, it does not include expenditure by the producers on the replacement of existing assets.
It includes replacement investment: (=depreciation of fixed assets)	In does not include replacement investment.
It does not show net addition to the existing capital stock.	It shows net addition to the existing capital stock.

Concept of Depreciation

Depreciation is the loss of value of fixed assets in use on account of:

i. **Normal wear and tear**
ii. **Accidental damages, and**
iii. **Expected obsolescence**

Depreciation is also called consumption of fixed capital. Because of depreciation, fixed assets need to be replaced from time to time.

Concept of Depreciation Reserve Fund

Depreciation reserve fund refers to that fund which the producers keep for replacement investment.

i. **Lack of depreciation reserve fund implies the lack of replacement investment. Accordingly, overall investment (gross investment) in the economy tends to fall.**

ii. **This leads to a fall in the level of output. The level of income and employment will also fall. The economy will slip into a state of economic slowdown.**

iii. **It might be caught into a low level equilibrium trap: a situation when low income causes low demand, and low demand causes low output; and once again low income.**

Expected Obsolescence and Unexpected Obsolescence – The Difference

Consumption of Fixed Capital	Capital Loss
It refers to a loss of value of fixed assets (capital goods) while these are being continuously used in the process of production.	It refers to a loss of value of fixed assets while these are not in use.
It is a loss due to: a. Normal wear and tear b. Accidental Damages c. Expected Obsolescence	It is a loss due to: a. Natural Calamities (earthquakes, floods etc) b. Fall in the market value of assets during periods of economic recession.
It is managed through depreciation reserve fund.	It is managed through insurance of fixed assets.

FOUR SECTORS OF THE ECONOMY

From the macro point of view, economy is often divided into four sectors, viz:

1. **Household Sector: It includes consumers of goods and services. Households are also the owners of the factors of production.**

2. **Producer Sector: It includes all producing units (firms) in the economy. For the production of goods and services, the firms hire/purchase factors of production (land, labour, capital, and entrepreneurial skill) from the households.**

3. **Government Sector: It includes: government as a welfare agency, and government as a producer. Government as a welfare agency performs such welfare functions as of law and order and defence.**

4. **The External Sector, also called the *REST OF THE WORLD* Sector: It includes: all such activities which are related to import and export of goods, and the flow of capital between the domestic economy and rest of the world.**

INTERSECTIONAL FLOWS:

Each sector of the economy depends on the other in one way or the other. It is called *intersectoral* dependence.

Intersectoral interdependence leads to intersectional flows.

Intersectoral flow in the form of money is called Money Flow.

Intersectoral Flow in the form of goods is called Real Flow.

REAL FLOWS

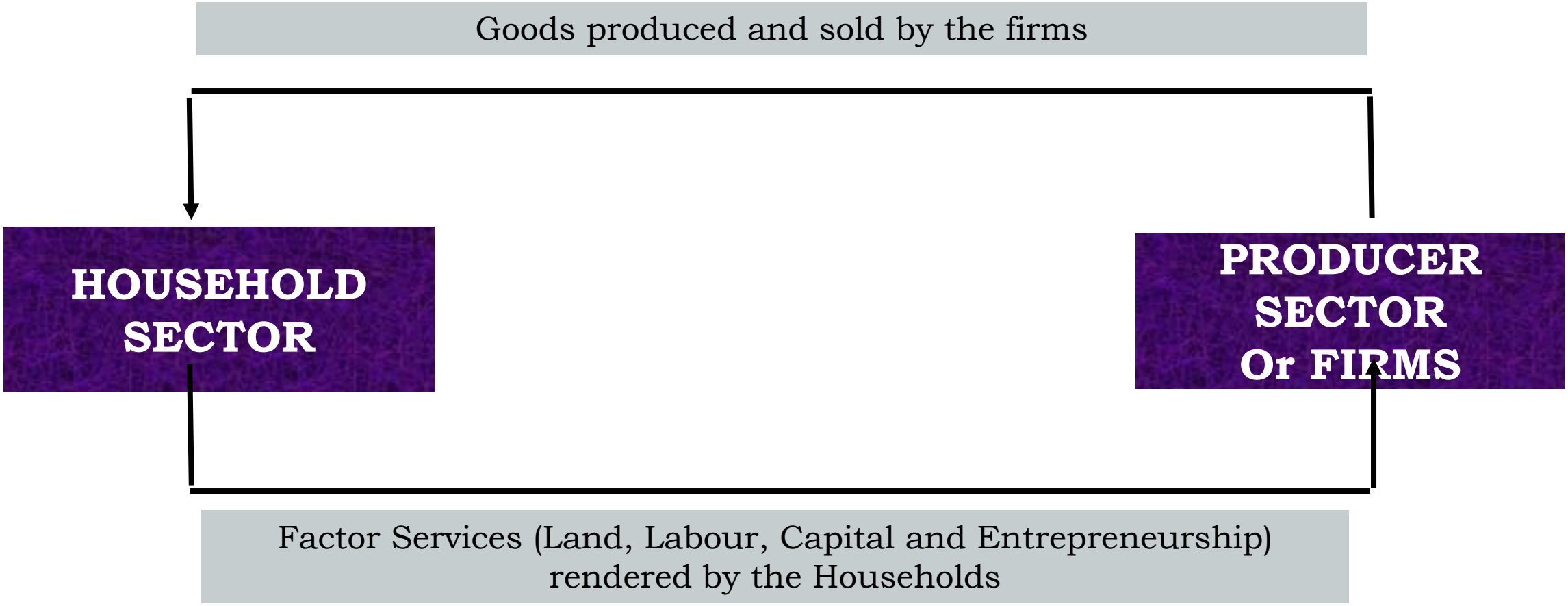


Figure: Real Flows in a Two Sector Economy

MONEY FLOWS

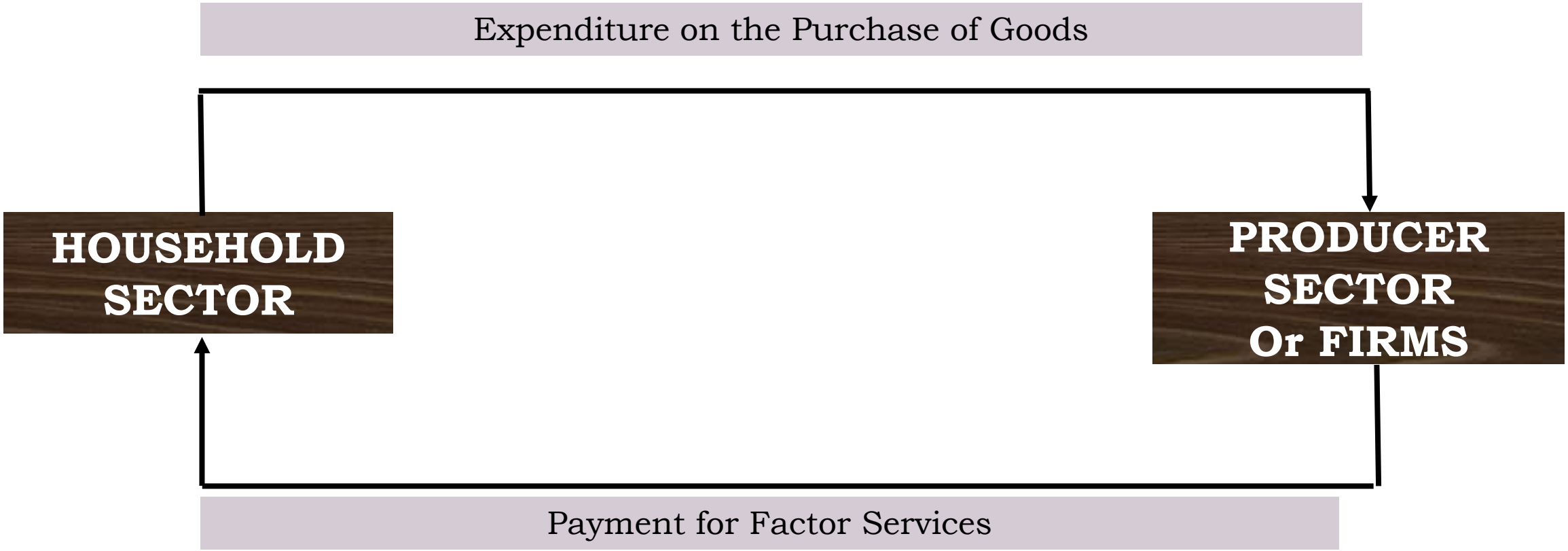
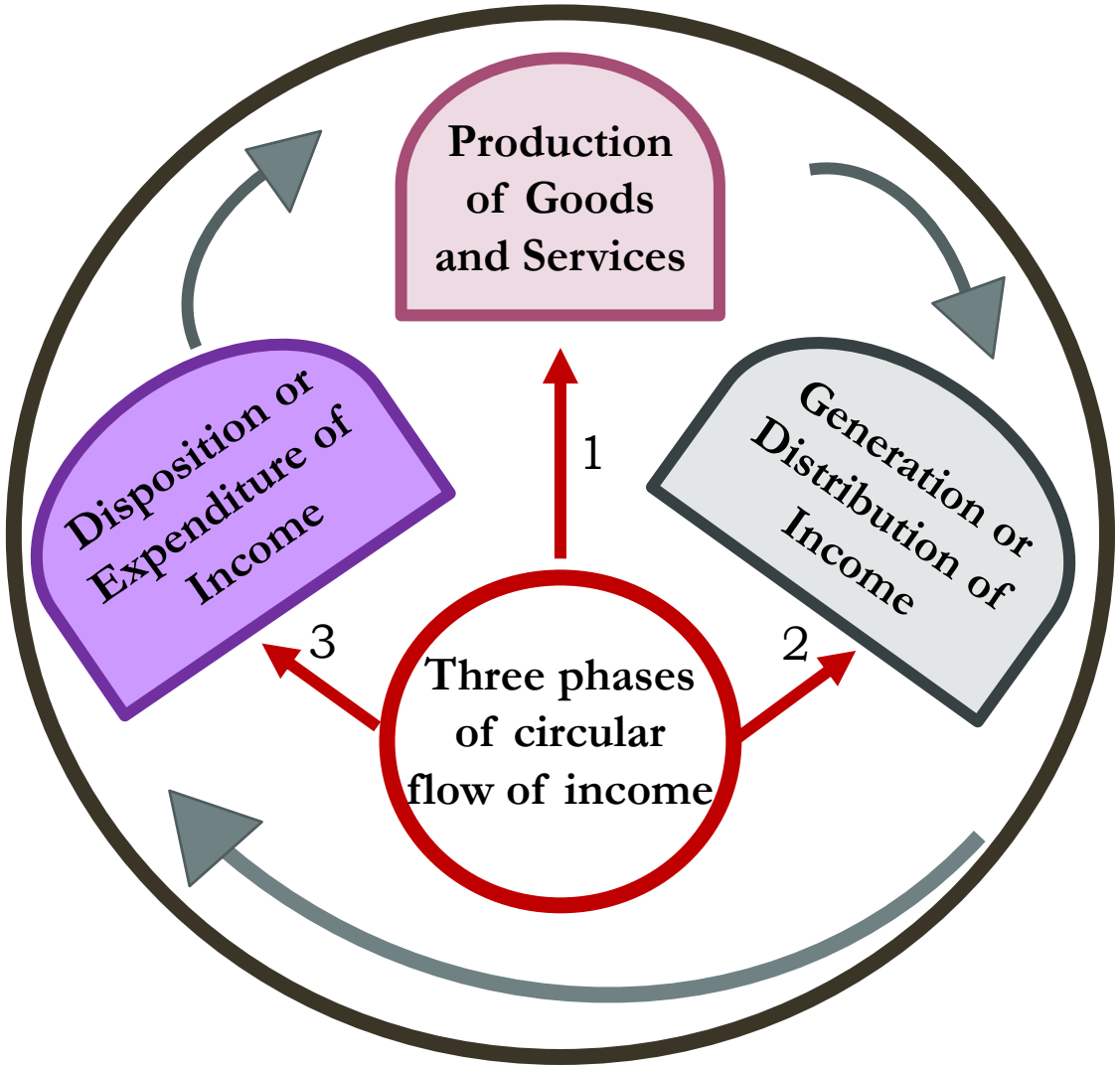


Figure: Money Flows in a Two Sector Economy

CIRCULAR FLOW OF INCOME



Circular Flow of income refers to the unending flow of the activities of production, income generation and expenditure involving different sectors of the economy.

The three phases of circular flow:

a. **Production of goods and services causes generation (or distribution) of income.**
b. **Income causes expenditure (or disposition.)**
c. **By generating demand, expenditure once again causes production.**

The flows of production, income and expenditure form a circularity with no beginning or no end. Which is why it is called circular flow.

CIRCULAR FLOW MODEL

Considering the three phases together, we find that in a two sector economy:

Production (the value of goods and services) = Income Generated = Expenditure

This is called Triple Identity.

ASSUMPTIONS AND SIGNIFICANCE OF THE CIRCULAR FLOW MODEL:

Assumptions:

i. **There are only two sectors in the economy: Households and Producers.**

ii. **The households spend their entire income, so that there are no savings.**

iii. **The domestic economy is closed, i.e. there are no exports and imports.**

iv. **Govt does not play any role in the domestic economy.**

Significance:

i. **Facilitates the estimation of national income.**

ii. **Helps in understanding interdependence among different sectors of the economy.**

Key terms for Aggregates related to National Income

To measure NI in 'Domestic & National' terms the key term is

NET FACTOR INCOME FROM ABROAD(NFIA)

NFIA = Factor income earned by our residents in the rest of the world - Factor income earned by non- residents in our domestic territory.

Domestic Income + NFIA = National Income.

National Income – NFIA = Domestic Income.

E.g. Find Domestic Income if NI = Rs.850 cr. & NFIA = Rs.30 cr.
Domestic Income = NI - NFIA = 850 – 30 = 820 cr.

E.g. Find National Income if Domestic Income = 700 cr.; Factor income earned by our residents from ROW = 50 cr. & Factor income earned by non – residents in our domestic territory = 20cr.
National Income = Domestic Income + NFIA
National Income = 700 + (50 – 20) = 700 + 30 = 730 cr.

Key terms for Aggregates related to National Income

To measure NI in 'Gross & Net' terms the key term is

DEPRECIATION

Gross = Net + Depreciation

Net = Gross – Depreciation

E.g. Find GDP, if NDP = Rs. 350cr. & Depreciation = Rs. 100cr.

GDP = NDP + Depreciation = 350 + 100 = Rs. 450 cr.

E.g. Find NDP, if GDP = Rs.500cr. & Depreciation = Rs. 50cr.

NDP = GDP – Depreciation = 500 – 50 = Rs.450 cr.

Key terms for Aggregates related to National Income

To measure NI at 'Market Price & Factor Cost' terms the key term is

NET INDIRECT TAXES

Net Indirect Tax = Indirect Tax – Subsidies

Market Price = Factor Cost + Net Indirect Tax (I.T – Subsidies)

Factor Cost = Market Price – Net Indirect Tax (I.T – Subsidies)

E.g. Calculate Market price if Factor cost=Rs. 35cr ; Indirect tax= Rs.10cr & Subsidy=Rs. 5cr.

MP= FC+NIT(I.T-Subsidy) = 35+(10-5) = Rs.40cr.

E.g. Calculate Factor Cost if Market price=70cr; Indirect tax= 15cr. & Subsidy=20cr.

FC=MP-NIT(I.T-Subsidy) = 70-(15-20) = 70-(-5) = Rs.75cr.

Aggregates Related to National Income

- **Gross Domestic Product: Gross market value of all final goods & services produced within the domestic territory of a country during an accounting year.**

- **Net Domestic Product: Gross market value of all final goods & services produced within the domestic territory of a country during an accounting year excluding Depreciation.**

- **Gross National Product: Gross market value of all final goods & services produced by the normal residents of a country during an accounting year.**

- **Net National Product: Gross market value of all final goods & services produced by the normal residents of a country during an accounting year excluding Depreciation.**

Aggregates Related to National Income

- **Real and Nominal GDP**

Real GDP	Nominal GDP
Also known as GDP at constant prices.	Also known as GDP at current prices.
Market value of final g/s produced within the domestic territory of a country during an accounting year, as estimated at base year prices.	Market value of final g/s produced within the domestic territory of a country during an accounting year, as estimated at current year prices.
Can increase only when flow of g/s in the economy increases.	Can increase if price level rises even when there is no increase in flow of g/s in the economy.
A better measure of welfare of the people in a country.	Not a reliable measure of welfare of the people in a country.
Real GDP= Q x P* where, Q= quantity of final g/s produced during an accounting year. P*= prices prevailing in the base year.	Nominal GDP=Q x P where, GDP= Q x P where, Q= quantity of final g/s produced during an accounting year. P= prices prevailing in the current year.

Aggregates Related to National Income

Estimation of Real and Nominal GDP(Hypothetical example)

Year	Production (Q)	Current year prices (P)	Base year prices (P*)	Nominal GDP (QxP)	Real GDP (QxP*)
2018-19	100	10	10	1000	1000
2019-20	100	15	10	1500	1000
2020-21	150	15	10	2250	1500

NOTE: While Nominal GDP increases from 1000 to 1500 even when Q is constant at 100 units due to rise in prices, the Real GDP remained the same. Real GDP is showing a rise from 1000 to 1500 only when production increases from 100 to 150.

GDP and Welfare

- **Welfare of people is measured in terms of the per capita availability of goods & services.**
  Greater availability of goods & services per person implies greater level of economic welfare. Hence Real GDP is considered as an index of the welfare of people.

- **However there are certain limitations related to GDP as an index of social welfare:**

- **Composition of GDP: Higher GDP will promote welfare only if increased output comprises of goods of mass consumption & essential goods.**

- **Distribution of GDP: It may happen that with rise in GDP, the inequalities in the distribution of income may also rise which will widen the gap between the rich & poor. GDP does not take into account changes in inequalities in the distribution of income.**

- **Non-monetary exchanges: Due to the non-availability of data, many activities which influence the economic welfare such as services of housewives in the economy, are not evaluated in monetary terms & hence not included in GDP.**

- **Externalities: These refer to positive/negative impacts of an activity caused by an individual/firm, for which they are not paid/penalised. The positive externalities increase the welfare while the negative externalities reduce the welfare. GDP does not take into account such externalities.**

- **Rise in prices: If increase in GDP is due to increase in prices and not due to increase in physical output, then it will not be a reliable index of economic welfare.**

Methods of measuring National Income

- **Three aspects of National Income:**

1) **Production aspect**
2) **Income or distribution aspect**
3) **Expenditure aspect**

- **Production Aspect:** **It points to flow of goods and services in the economy or process of value adding.**
- **Income or distribution aspect:** **It points out to generation of income in terms of wages,rent, interest and profit.**
- **Expenditure aspect:** **It indicates disposal of income in terms of consumption expenditure or investment expenditure.**

Product method or value-added method

- **Product Method or Value-added method is that method which measures national income by estimating the contribution of each producing enterprise to production in the domestic territoryof country in an accounting year.**
- **Value of output=Sales + change in stock**
- **Change in stock = closing stock-opening stock**

Estimating Value Added

Item produced	Value of Output	Intermediate goods	Value Added
Wheat	600	200	400
Flour Mill	800	600	200
Baker	1000	800	200
Shop- keeper	1200	1000	200
Total	3600	2600	1000

- **Thus, the gross value added by all producing enterprises is :**

  Rs (400+ 200+200+200 = 1000)

- **Gross value added by all producing enterprises within the domestic territory of a country duringthe period of one year is called GDP at M.P.**
- **Thus, Gross Value added by all producing enterprises in (PRIMARY SECTOR + SECONDARY SECTOR + TERTIARY SECTOR) = GDP at M.P**

Measurement of N.I. by Value-added method

- **GDP at M.P - Depreciation =N.D.P. at M.P.**
- **N.D.P. at M.P - Net Indirect Taxes = $N.D.P_{FC}$**
- **N.D.P at F.C + NFIA = NNP_{FC}(National Income)**

Precautions regarding Product- method or Value –added method

- **Sale and purchase of second-hand goods is notincluded in value- added. Because, value of second-hand goods is already accounted for during the year of production.**
- **Commission earned on sale and purchase ofsecond-hand goods is included.**
- **Own account production of goods is taken into account. They are simply not sold owing to theirneed by producers themselves.**
- **Value of intermediate goods is not included, because value of intermediate goods is alreadyreflected in value of final goods.**
- **Imputed rent of owner-occupied houses is also taken into account, because all houses have rental value.**
- **Services for self-consumption is not considered, because it is difficult to estimate their market-value.**
- **Value added in Govt. sector is equal tocompensation of employees only.**

Problem of double-counting

- **The problem of double-counting is the problem of estimating the value of goodsand services more than once.**
- **This leads to over-estimation of value ofgoods and services produced.**

How to avoid double-counting?

- **Final output method- According to this method, valueof intermediate goods is deducted from value of output. In other words, value of final goods and services only is included in National Income.**

  Value of Final Output= {Value of output-value ofintermediate goods}

  = 3600-2600=1000

- **Value-added method- Value-added refers to the difference between value of output and value of intermediate consumption of each producing unit. SUM-TOTAL of value-added by all producing unitswithin the domestic territory of a country is equal todomestic-product. (400+200+200+200=1000)**

ADDED/PRODUCT/INDUSTRIAL ORIGIN/ NET OUTPUT METHOD

Q1. Find out:

a) Value Added by Firm A and B **b) Gross Value Added(GDP at FC)**

Items	Rs (in lacs)
1. Sales by Firm A	100
2. Purchases from Firm B by Firm A	40
3. Purchases from Firm A by Firm B	60
4. Sales by Firm B	200
5. Closing stock of Firm A	20
6. Closing stock of Firm B	35
7. Opening stock Firm A	25
8. Opening stock of Firm B	45
9. Indirect taxes paid by both Firms	30

SOLUTION :

V.A by firm A= V.O of firm A - I.C of firm A
V.O of firm A = Sales+ change in stock
V.O of firm A= Sales by firm A + (closing stock – opening stock of firm A)
V.O of firm A = 100 + (20 – 25) = 100 - 5 = 95
I.C of firm A = Purchases from Firm B by Firm A
I.C of firm B = 40
Hence V.A by firm A = V.O of firm A – I.C of firm A = 95 – 40 = 55 lacs

V.A by firm B= V.O of firm B - I.C of firm B
V.O of firm B = Sales+ change in stock
V.O of firm B= Sales by firm B + (closing stock – opening stock of firm B)
V.O of firm B = 200 + (35 – 45) = 200 - 10 = 190
I.C of firm B = Purchases from firm A by firm B = 60
Hence V.A by firm B = V.O of firm B – I.C of firm B = 190 – 60 = 130 lacs

G.V.A at MP/G.D.P at MP = V.A by firm A + V.A by firm B
= 55 + 130 = 185
G.D.P at MP – I.Tax + Subsidy = G.D.P at FC
=185 – 30 + 0 = 155 lacs

PRACTICE NUMERICALS VALUE ADDED/PRODUCT/INDUSTRIAL ORIGIN/ NET OUTPUTMETHOD

Q2. Calculate:

a) **Gross Value Added/GDP at MP** **b) National Income (NNP at FC)**

Items	Rs (in lacs)
1. Value of Output:	
a. Primary Sector	**800**
b. Secondary Sector	**200**
c. Tertiary Sector	**300**
2. Value of Intermediate Inputs purchased by:	
a. Primary Sector	**400**
b. Secondary Sector	**100**
c. Tertiary Sector	**50**
3. Indirect taxed paid by all sectors	**50**
4. Consumption of Fixed Capital of all sectors	**80**
5. Factor income received from ROW	**10**
6. Factor income paid to non residents	**20**
7. Subsidies received by all sectors	**20**

SOLUTION :

(a)

G.V.A at MP/ G.D.P at MP = V.A by Pri. Sec + V.A by Sec. Sector + V.A by Ter. Sec.

V.A by Primary Sector = V.O of Pri. Sec - I.C by Pri. Sec. = 800 - 400 = 400

V.A by Secondary Sector = V.O of Sec. Sector - I.C by Sec. Sec. = 200 - 100 = 100

V.A by Tertiary Sector = V.O of Ter. Sector - I.C by Ter. Sector = 300 - 50 = 250

Hence G.V.A/G.D.P at MP = V.A by Pri. Sec + V.A by Sec. Sec. + V.A by Ter. Sec.
= 400 + 100 + 250 = 750

(b)

G.D.P at MP -- Depreciation = N.D.P at MP = 750 -- 80 = 670

N.D.P at MP + NFIA(Factor income received from R.O.W -- Factor income paid to non residents) = N.N. P at MP
670 + (10 -- 20) = 670 - 10 = 660
N.N.P at MP – I. Tax + Subsidy = N.N.P at FC =660 -- 50 + 20 = 630 lacs

Income-Method

- **Income-method is that method which measures National income in terms of payments made in the form of wages, rent, interest and profit to factors of production for their services.**

What are Factor-Incomes? How are they different from Transfer incomes?

- **Factor-Incomes are earned-incomes, transfer payments are unearned.**
- **Factor-incomes are rewards for rendering factor-services. Transfer payments are just one-sided payments. No service is rendered in return for transfer payments.**

Classification of Factor-Incomes

- **COMPENSATION OF EMPLOYEES**
  - **It includes:-**

- **wages and salaries in cash**
- **payment in kind**
- **employers' contribution to social-security scheme**
- **pension on retirement**

- **OPERATING SURPLUS:**
  - **It includes:-**

- **income from property and entrepreneurship. It is earned in both private and Govt. sector. It includes:**
- **Rent**
- **Interest**
- **Profit (Dividend + corporation tax + savingof enterprise or undistributed profits)**

Classification of Factor-Incomes

- **MIXED INCOME:**

- **Mixed- Income refers to the income of SELF- EMPLOYED persons using their labour, land, capital and entrepreneurship to produce goods and services.**
- **These incomes are mixed in termsof wages, rent, interest and profit. That is why, itis called mixed income.**

NDP at F.C. = sum-total of factor-incomes generated within domestic territory of countryduring an accounting year.

Measurement of National-Income (Income- Method)

NDP at F.C. = {compensation of employees +operating surplus +mixed income}

NDP at F.C. + NFIA = NNP at F.C.

Precautions while estimating Factor-Incomes

- **Transfer-earnings like old-age pensions, unemployment allowances, scholarships, pocketexpenses etc. should not be included in N.I. because corresponding to transfer-payments, there is no value-addition in the economy. However, it should be remembered that retirement pension is included in N.I. as it is a part of compensation of employees.**
- **Income from illegal activities not to be included.**
- **Sale proceeds of second-hand goods not to beincluded.**
- **Sale-proceeds of shares and bonds are not included in N.I. Because such transactions are not related to flow ofgoods and services.**
- **Windfall gains, like lotteries and capital-gains not to be included as there is no value addition corresponding to windfall gains.**
- **Imputed rent of owner-occupied houses is included in N.I.**
- **Goods for self-consumption should be included.**

Precautions while estimating Factor-Incomes

- **Indirect taxes like sales-tax, excise-duty, tend to increase M.P of goods and services. These are includedin estimation of N.I. at M.P but are NOT to be included while estimating N.I. at F.C**
- **Corporate tax, dividends and undistributed profits are all components of corporate profits.Once profit is included in N.I, any of these components should not be separately added.**
- **Income-tax is paid out of compensation of employees. It should not be separately added.**
- **Gift tax, wealth tax, taxes on windfall gains are paid not out of current income but out of past savings of tax-payer. These are not to be included in estimation of N.I**

PRACTICE NUMERICALS.....INCOME METHOD/DISTRIBUTED SHARE METHOD/ FACTOR PAYMENT METHOD

Q1. GIVEN THE FOLLOWING DATA, CALCULATE :

a) Net Domestic Income
b) Gross Domestic Income
c) Net National Income
d) Net National Income at MP.

ITEMS	(Rs.in crores)
i) Indirect Taxes	9,000
ii) Subsidies	1,800
iii)Consumption of fixed capital	1,700
iv)Mixed Income of self-employed	28,000
v) Operating Surplus	10,000
vi)NFIA	(-) 300
vii)Compensation of employees	24,000

SOLUTION

a) **Net Domestic Income / NDP at FC= C.O.E+ O.S + Mixed Income**

NDP at FC = 24000 + 10000 + 28000 = Rs. 62,000

b) **Gross Domestic Income/ GDP at FC = NDP at FC + Depreciation**

GDP at FC = 62000 + 1700 = Rs. 63,700

c) **Net National Income/ NNP at FC = NDP at FC + NFIA**

NNP at FC = 62000 + (-300) = Rs. 61,700

d) **Net National Income at MP/NNP at MP = NNP at FC + I.T - SUBSIDIES**

NNP at MP = 617000 + 9000 - 1800 = Rs. 68,900

FACTOR PAYMENT METHOD

Q 2. **GIVEN THE FOLLOWING DATA, CALCULATE :**

a) Domestic Income

b) National Income

FACTOR PAYMENT METHOD

ITEMS	(Rs.in crores)
i) Wages	10,000
ii) Rent	5,000
iii)Interest	400
iv)Dividend	3,000
v) Mixed Income	400
vi)Undistributed Profit	200
vii)Social Security Contribution by Employer	400
viii)Corporate Profit Tax	400
ix)Net Factor Income from Abroad	1,000
x) Social Security Contribution by Employee	600

Ans. **a) Domestic Income/NDP at FC = C.O.E + O.S + M.I**

C.O.E = Wages + Social security contribution by employer

C.O.E = 10000 + 400 = Rs. 10,400

O.S =Rent + Interest + Profit(dividend+undistributed profit+corporate profit tax)

O.S = 5000 + 400 + 3000 + 200 + 400 = Rs. 9,000

M.I = 400

Hence, NDP at FC = 10400 + 9000 + 400 = Rs. 19,800

b) National Income/NNP at FC = NDP at FC + NFIA

NNP at FC = 19800 + 1000 = Rs. 20,800

EXPENDITURE METHOD

- **Expenditure Method is the method which measures final expenditure on GDP_{MP} during an accounting year. Final Expenditure is equal to GDP_{MP}.This is also called Income-Disposal method.**

What is Final-Expenditure?

- **It refers to expenditure on final goods and services in a year.**
- **If an enterprise uses goods purchased from other enterprises for re-sale or as raw-material, the expenditure on such goods will be inter-mediate expenditure.**
- **On the other-hand, if goods and servicesare produced for final consumption, the expenditure on them is final expenditure.**

Classification of Final - expenditure

- **PRIVATE FINAL CONSUMPTIONEXPENDITURE:**

  It refers to expenditure on final goods and services by individuals, households and non-profit organizations.

- **GOVT. FINAL CONSUMPTIONEXPENDITURE:**

  It refers to expenditure on final goods and services by Govt.

- **INVESTMENT EXPENDITURE(Gross Domestic Capital Formation) : It refers to expenditure on purchase of final goods by producers. These goods are to be further used in process of production. Investment expenditure is classified as:**

- **Fixed Investment/Gross domestic fixed capital formation : Investment in fixed assets by business, household, Govt.**
- **Inventory Investment:It refers to change instock (closing stock-opening stock)**

- **NET EXPORTS (X-M): It refers to difference between exports and imports during a year.**

Measurement of N.I (Expenditure method)

Final consumption expenditure{PFCE+GFCE}

+

Gross Domestic Capital Formation {GDFCF + Changein stock}

+

Net Exports (Exports-Imports) = GDP at M.P

GDP at M.P – depreciation = NDP at M.P

NDP at M.P - Net Indirect Taxes = NDP at F.C

NDP at F.C + NFIA = NNP at F.C

PRACTICE NUMERICALS ON EXPENDITURE/CONSUMPTION & INVESTMENT/ INCOME DISPOSAL METHOD

Q1. From the following data, calculate :

a) GDP_{MP} **b) GDP_{FC}**

ITEMS	(Rs. in crores)
a) Gross Investment	90
b) Net Exports	10
c) Net Indirect Taxes	5
d) Depreciation	15
e) Net Factor Income from Abroad	(-) 5
f) Private consumption Expenditure	350
g) Government purchases of goods and services	100

SOLUTION

a) $GDP_{MP} = C + G + I + (X-M)$

GDP at MP = Private consumption expenditure + Government purchases of goods & services + Gross investment + Net exports.

$GDP_{MP} = 350 + 100 + 90 + 10 = Rs.\ 550\ cr.$

b) GDP at FC = GDP_{MP} – N.I.T

$GDP_{FC} = 550 - 5 = Rs.\ 545\ cr.$

PRACTICE NUMERICALS ON EXPENDITURE/CONSUMPTION & INVESTMENT/ INCOME DISPOSAL METHOD

Q2. Find NNP at FC from the following data

ITEMS	(Rs. in lacs)
a) Gross domestic fixed investment	10,000
b) Inventory investment	5,000
c) Depreciation	2,000
d) Indirect tax	1,000
e) Subsidies	2,000
f) Consumption expenditure	20,000
g) Residential construction investment	6,000
h) Net factor Income from Abroad	3,000

SOLUTION

GDP at MP = C + G + I + (X-M)

= Consumption expenditure + Government expenditure + (Gross domestic fixed Investment + Inventory investment) + (X-M)

= 20,000 + 0 + (10,000 + 5,000) + 0 = GDP at MP = 35,000

GDP at MP – Depreciation = NDP at MP = 35,000 - 2,000 = 33,000

NDP at MP – I.T + Subsidies= NDP at FC =33,000-1,000 + 2,000= 34,000

NDP at FC + NFIA = NNP at FC = 34,000 + 3,000 = 37,000

Relevant Videos:

- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_313080246 26002329618680
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_313082555 490598912111258
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SOURCE ACKNOWLEDGMENT:

1. Introductory Macroeconomics : NCERT
2. Diksha Portal; Ministry of Education Govt. of India.
2. Introductory Macroeconomics : Jain & Ohri
3. Introductory Macroeconomics : Sandeep Garg

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UNIT 2 : MONEY & BANKING

MONEY

➢ **DEFINITION**

❖ **Money is a matter of functions four, a Medium, a Measure, a Standard, a Store.**

❖ **Money is what Money does. It is generally defined as an instrument which is commonly used as a MEDIUM OF EXCHANGE.**

❖ **The definition of Money conveys the basic functions of Money. These are:**

✓ **Money Acts as a Medium Of Exchange: Money acts as a medium for the sale & purchase of goods & services. This has removed the major difficulty of double coincidence of wants.**

✓ **Money serves as a Store of Value: Since Money is easy & economical to store and it's value remains relatively constant, people save i.t.o Money & hence it acts as a store of value.**

✓ **Money as a Measure of Value : Money serves as a measure of value in terms of unit of account. i.e market price of goods & services is measured i.t.o Money.**

✓ **Money serves as a Standard for Deffered Payments: Money acts as an instrument of business contracts where future payments are involved.**

Supply of money

It is a stock concept. Stock of all type of money (currency + liquid assets) held by the people of a country at a point of time is termed as Supply of money. It refers to that stock of money which is held by the people who demand money and not by those who supply money.

The suppliers/producers of money includes the :

a) Government of a country

b) Banking system of a country (both commercial banks and the central bank of a country.

Accordingly, Supply of Money does not include :

a) the stock of Money held by the government

b) stock of money held by the banking system of a country

MEASURES OF MONEY SUPPLY IN INDIA

➢ MEASURES OF MONEY SUPPLY IN INDIA

Four alternative measures of money supply :

- **M1 measure which includes :**

*** currency(coins & notes) held by the public (C)**

***chequable demand deposits of the people with the commercial banks (DD)**

*** other deposits (OD) which include : (i) Dd. Deposits with RBI of public financial institutions like NABARD (ii) Dd. Deposits with RBI of foreign central banks and of the foreign governments (iii) Dd. deposits of international financial institutions like IMF etc.**

M1 = C + DD + OD

MEASURES OF MONEY SUPPLY IN INDIA

- **M2 measure of money supply is a broader concept in comparison to M1.**

M2 = M1 + Deposits with Post Office Saving Bank Account

- **M3 measure of money supply is a broader concept in comparison to M1.**

M3= M1 + Net Time Deposits with Commercial Banks

If money supply is measured using M3, it is called *AGGREGATE MONETARY RESOURCES* of the country.

- **M4 measure of money supply is a broader than even M3**

M4 = M1 + Total deposits with Post Offices(except NSC)

NOTE: If M1/M2 measures are used for estimating total money supply In the country it is called NARROW MONEY CONCEPT. If M3/M4 are used then it is known as BROAD MONEY CONCEPT.

BANKING

Money/Credit creation by Commercial Banking System

Commercial banks contribute to money supply by creating credit.. This is done by advancing loans many times more than their cash reserves. Money creation is determined by:

- **The amount of initial/primary fresh deposit.**
- **Legal Reserve Ratio(LRR): The minimum ratio of deposit legally required to be kept as cash by the commercial banks. LRR includes :**
  - ✓ **Cash Reserve Ratio: It is the minimum proportion of cash reserves which is kept by commercial banks with the central bank against its total deposits**
  - ✓ **Statutory Liquidity Ratio – It is that proportion of the total deposits which a commercial bank has to keep with itself in the form of liquid assets (i.e. cash, gold and unencumbered approved securities).**
- **It is assumed that all the money that goes out of banks is redeposit into the banks.**

CONCEPT OF MONEY MULTIPLIER/ CREDIT MULTIPLIER

Initial deposits	Deposits	Loans	LRR=20%
Round - 1	10000	8000	2000
Round-2	8000	6400	1600
Round-3	6400	5120	1280
	----	----	----
	----	----	----
Total	50000	40000	10000

CONCEPT OF MONEY MULTIPLIER/ CREDIT MULTIPLIER

Money Multiplier is the number of times the commercial banks can create credit, per unit of their cash reserves with RBI.

Higher the CRR, lower is the capacity to create credit and vice versa.

- **Money Creation = Initial Deposit x 1/LRR, Money Multiplier = 1/LRR**
- **Money Creation = Initial Deposit x Money Multiplier**
- **Money Multiplier = 1/ (20/100),**
- **1/0.20 = 5**
- **Money Creation = Initial Deposit x Money Multiplier**
- **Money Creation = 10000 x 5 = 50000**

CENTRAL BANK AND IT'S FUNCTIONS

- **1. Currency Authority or Bank of Note Issue - Central bank is a sole authority to issue currency in the country. The main advantages of sole authority of note issue. (a)Uniformity in note circulation, (b) Better supervision and control, (c) It is easy to control credit, (d) Ensure public faith, (e) Stabilization in internal and external value of currency.**
- **2. Banker's Bank-**
- **RBI acts as Bankers bank in 3 capacities-**
- **Banker's Bank and Supervisor – There are no of commercial bank in country. There should be some agency top regulate and supervise their proper functioning. Being the apex bank, The RBI regulates and controls the commercial banks. The regulation of banks may be related to their licensing, branch expansion, liquidity of assets, management. Merging, winding up etc. The control is exercised by periodic inspections of banks and the returns filed by them.**
- **Custodian of Cash Reserve – Commercial Banks must keep a certain proportion of cash reserves with the central banks from their total Deposit (known as Cash Reserve Ratio or CRR).**
- **Lender of Last Resort - The central bank also acts as lender of last resort for the other banks of the country. It means that if a commercial bank fails to get financial accommodation from anywhere, it approaches the central bank as a last resort. Central bank advances loan to such a bank against approved securities. As a lender of the last resort, central bank exercises control over the entire banking system of the country.**

CENTRAL BANK AND IT'S FUNCTIONS

- 3. **Banker to the Government** – The central bank act as a banker, an agent and a financial advisor to the central government and all the state governments except J&K).
- **Banker to the Government** – As a Banker - to the govt., it acts like commercial bank to the public. Accepts receipts & makes payment for the govt. It provides short term credit to the govt. It provides foreign exchange resources to the govt. to repay external debt. It manages public debt. It advises the govt. on banking & financial matters.
- **As an Agent** – The central bank also has the responsibility of managing the public debt and collect taxes.
- **As a financial Advisor** – The central bank advises the government from time to time on economic, financial and monetary matters.

CENTRAL BANK AND IT'S FUNCTIONS

- **4. Clearing House - Every bank keeps cash reserves with the central bank. The claims of banks against one another can be easily and conveniently settled by simple transfers from in to their account. Supposing, Bank A receives a cheque of Rs 10,000 drawn on Bank B and Bank B receives a cheque of Rs. 15000 drawn on Bank A. The most convenient method of settling or clearing their mutual claims is that Bank A should issue a cheque amounting to Rs 5000 in favour of Bank B, drawn on central Bank. As a result of this transference, a sum of Rs 5000 will be debited to the account of Bank A and credited to the account of B. There is no need of cash transactions between the banks concerned. It facilitates cash transaction across the entire banking system, it also reduce requirement of cash reserves of the commercial banks.**
- **5. Custodian of Foreign Exchange Reserves - Another important function of Central Bank is the custodian of foreign exchange reserves. Central Bank acts as custodian of country's stock of gold and foreign exchange reserves. It helps in stabilizing the external value of money and maintaining favourable balance of payments in the economy.**

CREDIT CONTROL BY THE CENTRAL BANK

Central bank or RBI plays an important role during the times of economic fluctuations. It influences the money supply Through Quantitative instruments and Qualitative instruments

QUANTITATIVE INSTRUMENTS

- **1. Bank Rate Policy - It refers to the rate at which the central bank lends money to commercial banks as a lender of the last resort. Central Bank increases the bank rate during inflation (excess demand) and reduces the same in times of deflation (deficient demand).**
- **2. Repo Rate Policy – It is the rate at which the central bank of the country (RBI) lends money to the commercial banks to meet their short term needs.**
- **3. Reverse Repo Rate – It is the rate at which RBI borrows money from the commercial banks. This is used (Increased) when excess money supplies exist in an economy.**
- **4. Open Market Operations - It refers to the buying and selling of securities by the Central Bank from/ to the public and commercial banks. It sells government securities during inflation/excess demand and buys the securities during deflation/deficient demand.**
- **5. Legal Reserve Ratio - R.B.I. can influence the credit creation power of commercial banks by making changes in CRR and SLR.**

- **6. Cash Reserve Ratio (CRR) - It refers to the minimum percentage of net demand and time liabilities to be kept by commercial banks with central bank. Reserve Bank increases CRR during inflation and decreases the same during deflation.**
- **7. Statutory Liquidity Ratio (SLR) - It refers to minimum percentage of net demand and time liabilities which commercial banks required to maintain with themselves in the form of specified liquid assets including cash, gold and govt. securities. SLR is increased during inflation or excess demand and decreased during deflation or deficient demand.**

QUALITATIVE INSTRUMENTS:

- **1. Margin Requirements - It is the difference between the amount of loan and market value of the security offered by the borrower against the loan. Margin requirements are increased during inflation and decreased during deflation.**
- **2. Moral Suasion - It is a combination of persuasion and pressure that Central Bank applies on other banks in order to get them act in a manner in line with its policy.**
- **3. Selective Credit Controls - Central Bank gives direction to other banks to give or not to give credit for certain purposes to particular sectors.**

SUGGESTED VIDEOS

https://diksha.gov.in/play/collection/do_31322470198184345617 56?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3132245099286118401377

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SOURCE ACKNOWLEDGEMENT

1. Reserve Bank of India's Financial Education Initiative.
2. Diksha Portal; Ministry of Education Govt. of India.
3. Introductory Macroeconomics : NCERT
4. Introductory Macroeconomics : Jain & Ohri
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UNIT 3 : DETERMINATION OF INCOME & EMPLOYMENT

UNIT 3 : DETERMINATION OF INCOME & EMPLOYMENT

AGGREGATE DEMAND & IT'S COMPONENTS

CONCEPT OF AGGREGATE DEMAND(AD) :

It is the sum total of expenditure that the people plan to incur on the purchase of goods & services produced in the economy during an accounting year corresponding to their different levels of income.

BEHAVIOUR OF AD : Expressed by way of AD schedule & AD curve:

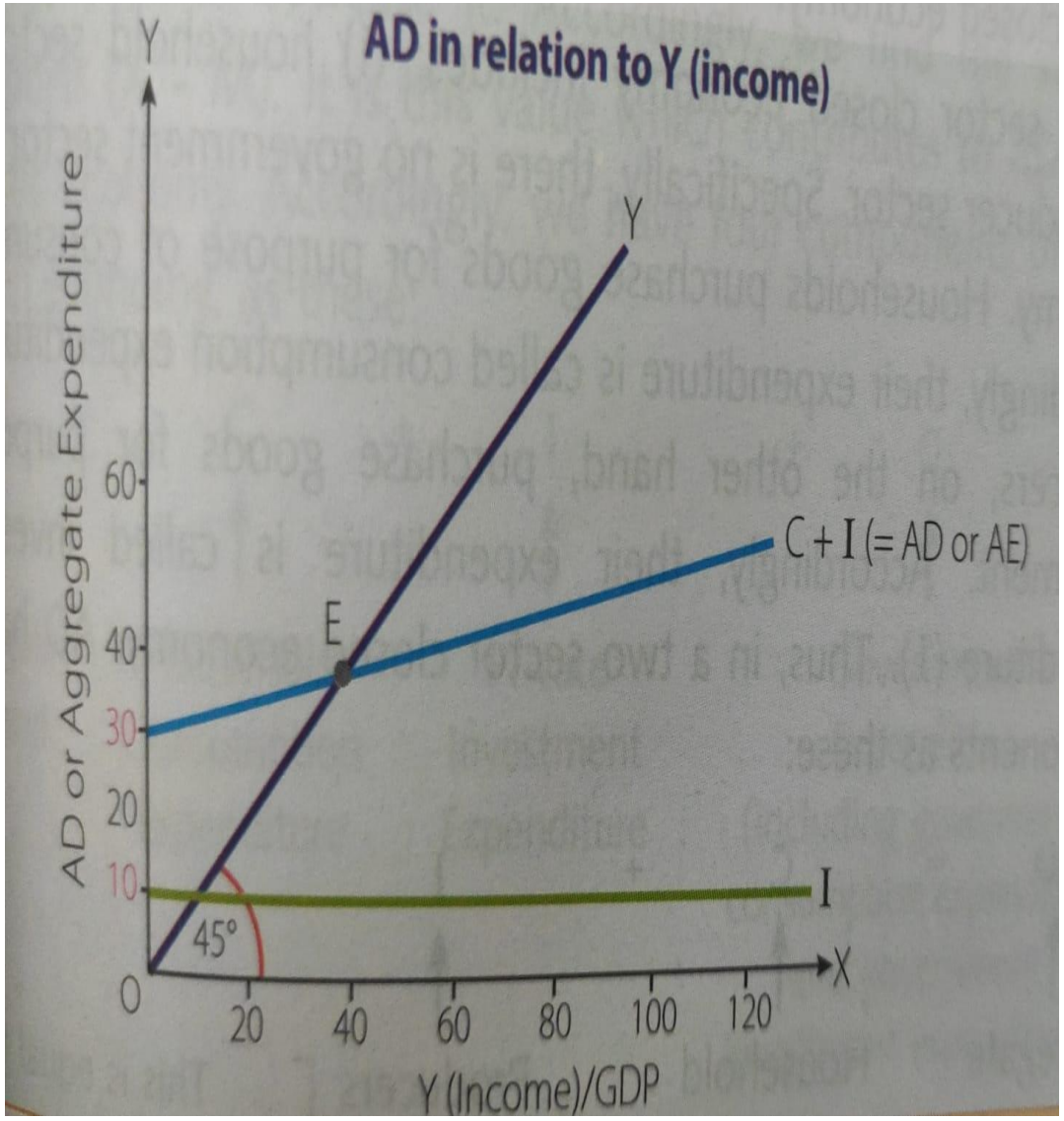
AD schedule

Income	AD
0	30
20	35
40	40
60	45
80	50
100	55
120	60

- A table showing aggregate demand/expenditure at different levels of income.
- AD is positively related to Income.
- There is always some minimum level of AD=30 even when Y=0
- At higher levels of Income, AD remains behind Income (Y=60,AD=45 & Y=80,AD=50. This happens since people start saving some part of their Income at higher levels of Income.

BEHAVIOUR OF AD

AD CURVE



- AD curve is a diagrammatic presentation of AD schedule.
- It tends to slope upward showing a positive relationship between AD and Income.
- AD=Y at point E, where Y=40.
- Before point E, AD>Y due to minimum level of AD.
- After point E, AD<Y due to savings started by people at higher levels of Income.
- Minimum level of AD=30 which is the expenditure independent of the level of Income.
- 45^0 line indicates level of Y.

CONCEPT OF AGGREGATE SUPPLY(AS)

AS refers to flow of goods & services as planned/desired by the producers during an accounting year. It is identical with the flow of Income during the accounting year. Hence, AS & Y, may be treated as identical to each other.

Major portion of National income is spent on consumption of goods 7 services & the balance is saved. Thus, Y = AS = C + S

BEHAVIOUR OF AS : Expressed by way of AS schedule & AS(Y) curve:

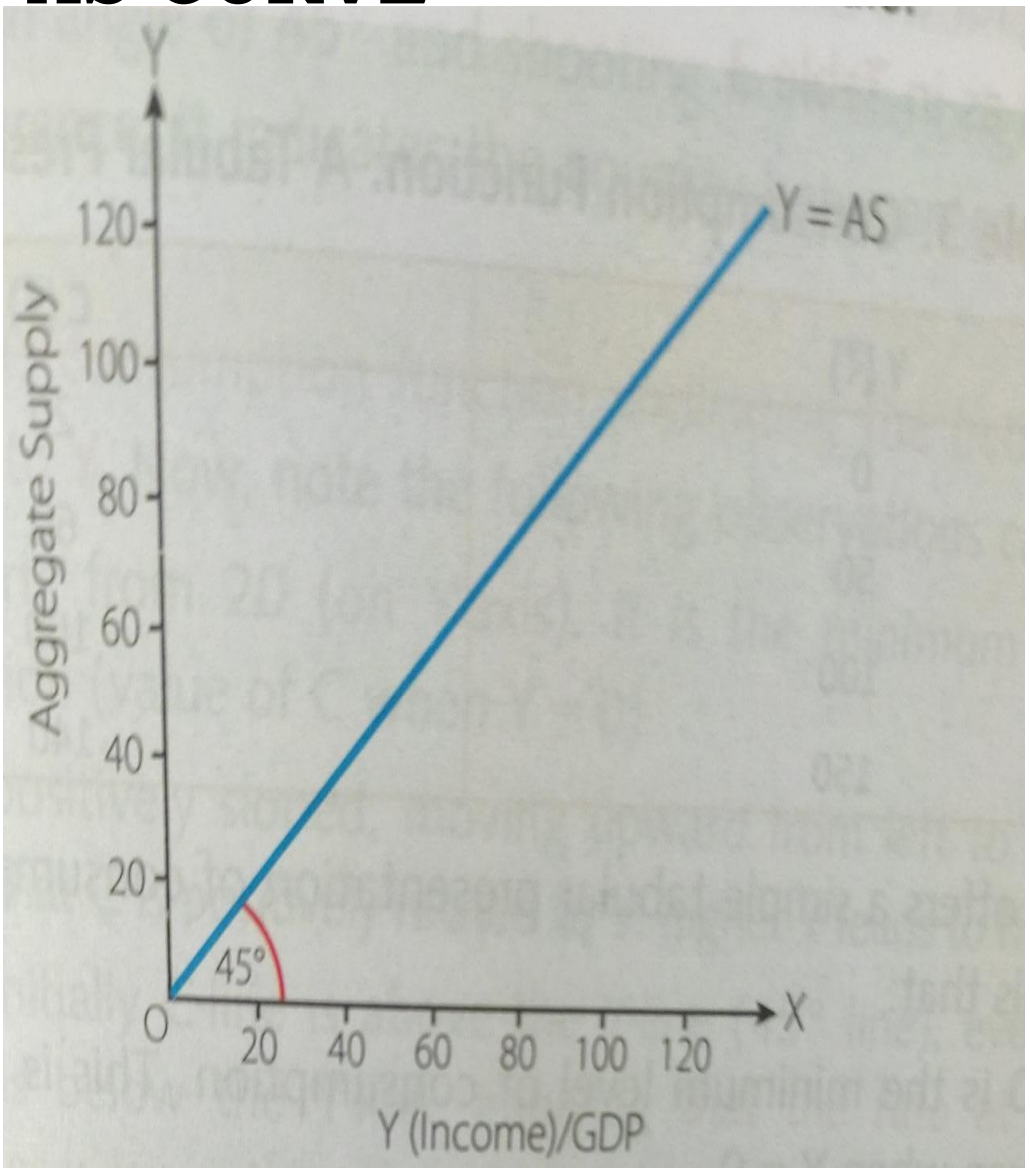
AS SCHEDULE

Y	C	S	AS (C+S)
0	40	- 40	0
100	120	- 20	100
200	200	0	200
300	280	20	300
400	360	40	400
500	440	60	500
600	520	80	600

- A table showing aggregate supply at different levels of income.
- Identity between AS & Y shows that producers in the economy are ready to supply/sell all that they wish to produce.
- Whenever there is rise in demand, the producers respond to it by planning an equal rise in supply so that their excess capacity is utilized.
- A proportionate rise in AS to any corresponding increase in AD leads to a constant price level in the economy. Hence, price has no role to play as a determinant of AS.
- The assumption of 'Excess capacity' is basic to Keynesian macroeconomic model in wake of Great Depression of 1930s.

CONCEPT OF AGGREGATE SUPPLY(AS)

AS CURVE



- AS curve is a diagrammatic presentation of AS schedule.
- It tends to slope upward showing a positive relationship between AS and Income.
- AS line happens to be a 45^0 line because AS on the Y-axis is identical with Income on the X-axis.
- Behaviour of AS as 45^0 line is true only when there is excess capacity & AS can proportionately rise whenever there is any rise in AD.

COMPONENTS OF AD

IN A CLOSED ECONOMY

TWO SECTOR

- ✓ Includes household & producer sector.
- ✓ Household purchases goods for consumption.
- ✓ Expenditure of households is called Consumption Expenditure.(C)
- ✓ Producers purchase goods for Investment.
- ✓ Expenditure of producers is called Investment Expenditure.(I)
- ✓ **AD=C + I**

THREE SECTOR

- ✓ Includes household, producer sector & Government sector.
- ✓ Government makes "collective consumption expenditure" on behalf of society as a whole. It also makes investment expenditure such as on roads & bridges etc.
- ✓ Thus apart from C & I, there is G i.e (government expenditure).
- ✓ **AD=C+I+G**

IN AN OPEN ECONOMY

- ✓ An Open economy includes four sectors.
- ✓ Apart from C, I & G it also includes "Rest of the world sector"(R.O.W)
- ✓ R.O.W generates demand for our goods & services in terms of our exports (X).
- ✓ Exports add to AD in the domestic economy.
- ✓ However, we also make imports (M) from R.O.W.
- ✓ Imports decrease the AD in the domestic economy.
- ✓ The difference between X & M gives us the value of 'Net Exports'.
- ✓ **AD= C+I+G+(X-M)**

CONCEPT OF CONSUMPTION FUNCTION

- An expression establishing the functional/algebraic relation between consumption expenditure (C) & level of Income (Y) based on **'Psychological Law of Consumption'** by Keynes.
- A minimum level of consumption will always be there even if Y=0. This is called as **Autonomous Consumption** $\bar{C}$ Savings at this level is negative(-S).
- Rate at which C increases is lower than the rate at which Y increases because entire increase in Y is not converted into C. A part of it is saved as well.

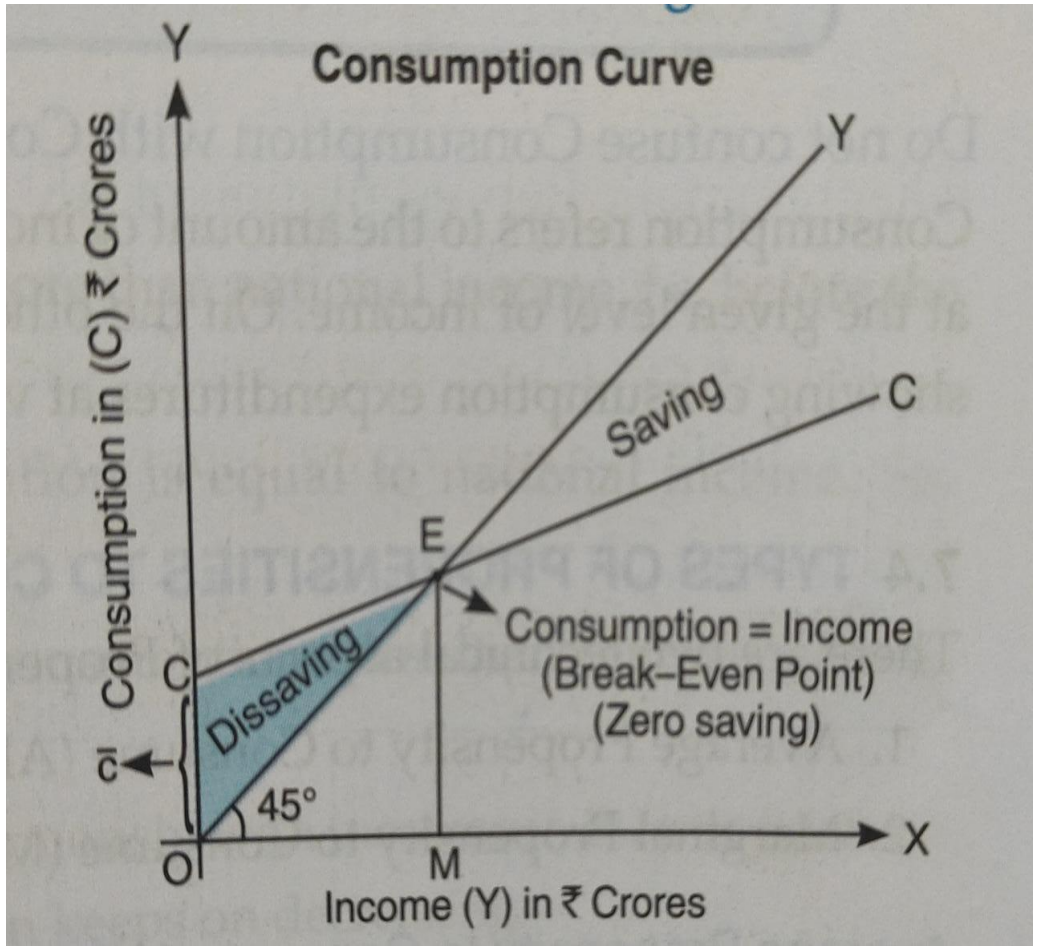
TABULAR PRESENTATION OF CONSUMPTION FUNCTION

Income	Consumption
0	5
10	10
20	15
30	20
40	25
50	30

- ✓ When Y=0 the Autonomous consumption level is 5.
- ✓ As Y rises, C rises in response. C=f(Y)
- ✓ C is positively related to Y.
- ✓ While Y increases each time by 10, C increases by 5 only.
- ✓ Thus the rate at which C increases is lower than the rate at which Y increases.
- ✓ The difference between Y & C indicates Savings out of Income.

CONCEPT OF CONSUMPTION FUNCTION

DIAGRAMMATIC PRESENTATION OF CONSUMPTION FUNCTION



- ✓ Consumption curve starts from point C on Y-axis.
- ✓ There is autonomous consumption of OC even when Y=0.
- ✓ CC has a positive slope indicating rise in consumption as Income rises.
- ✓ When income Y<C i.e. levels less than OM, the gap is covered by 'dissaving' i.e., by utilising previous savings as shown by ΔCOE.
- ✓ At OM level of income, C=Y and Saving =0. This is indicated at point E which is known as the 'Break-even point'.
- ✓ At points to the right of point E, Y>C.
- ✓ Excess of Income leads to Savings.
- ✓ 45^0 line is significant as it indicates whether consumption is equal, greater than or less than the level of income

Algebraic expression of C-function:

$$C = \bar{C} + bY$$

Where, C= Consumption function ; C= autonomous consumption ; b= Marginal Propensity to consume ; Y= level of income

CONCEPT OF PROPENSITY TO CONSUME

Definition: The proportion of total income or of an increase in income that consumers tend to spend on goods and services rather than to save.

There are two technical aspects of Propensity to consume:

1. **Average Propensity to Consume(APC) :** Ratio of consumption expenditure to the corresponding level of Income. **APC= C/Y**

Features of APC :

- **APC>1:-** As long as C>Y, i.e before the Break-even point.
- **APC=1:-** When C=Y, i.e at the Break-even point.
- **APC<1:-** As long as C<Y, i.e beyond the Break-even point.
- **APC falls with rising Income:-** as proportion of income spent on consumption keeps on decreasing.
- **APC can not be Zero:-** as consumption can never be zero. Even at zero level of Y there is autonomous consumption.

CONCEPT OF PROPENSITY TO CONSUME

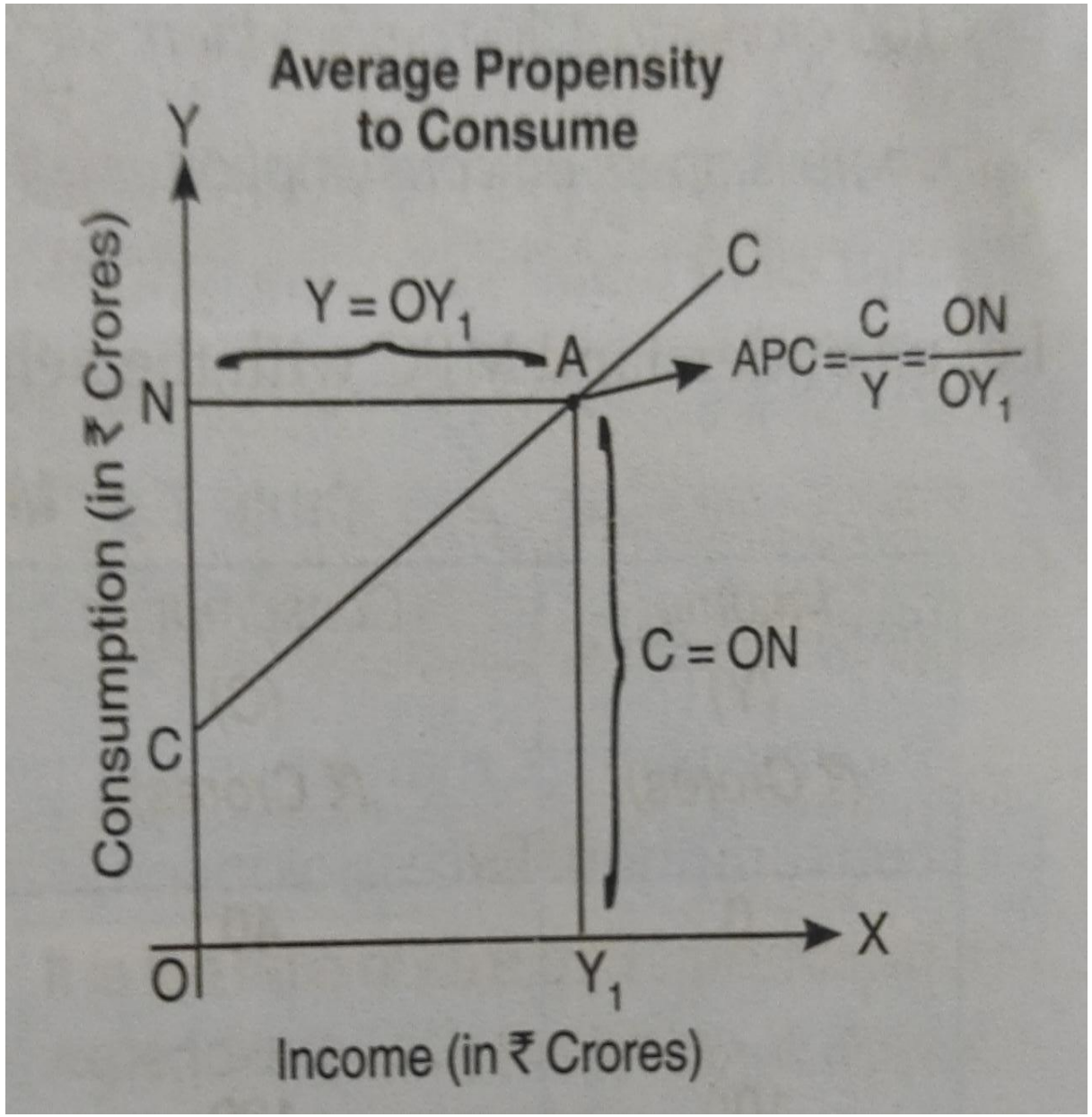
2.Marginal Propensity to Consume(MPC) : Ratio of change in consumption expenditure to the change in total Income. MPC= ΔC/ΔY

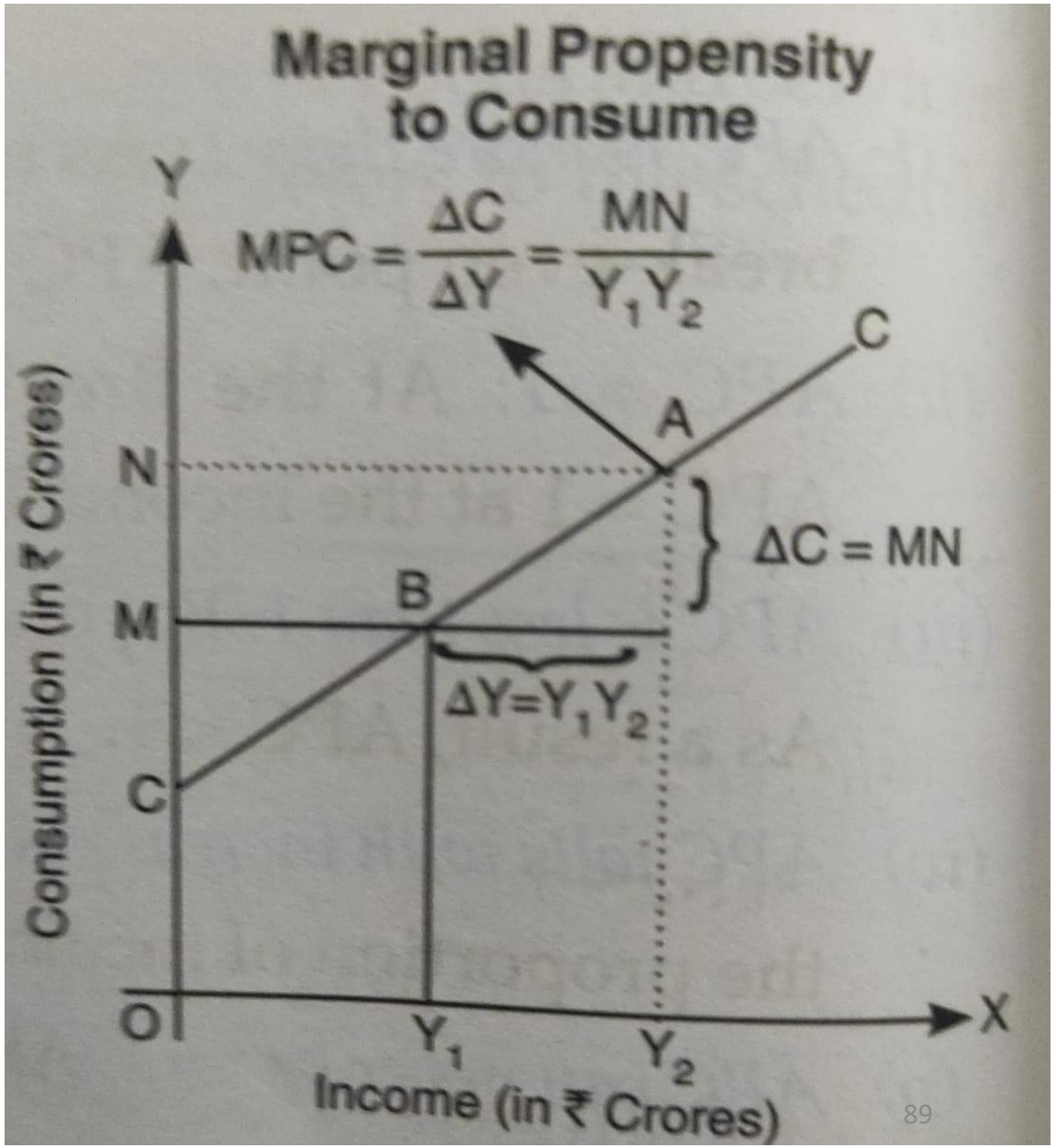
Features of MPC :

- **Value of MPC varies between 0 & 1:- Incremental income is either spent or consumption or saved for future use.**
- **If entire additional income is consumed then MPC=1 because ΔS=0.**
- **If entire additional income is saved then MPC=0 because ΔC=0.**
- **MPC falls with successive increase in Income:- As an economy becomes richer it has the tendency to consume smaller percentage of each increment to its income.**
- **MPC of poor is greater than that of the rich:- As most of the basic needs of poor remain unfulfilled, they tend to spend greater percentage of their increased income on consumption. On the other hand, rich already enjoy a high standard of living and hence tend to spend lesser on consumption as their income increases.**

NOTE: THE SLOPE OF CONSUMPTION CURVE IS DETERMINED BY MPC

CONCEPT OF PROPENSITY TO CONSUME





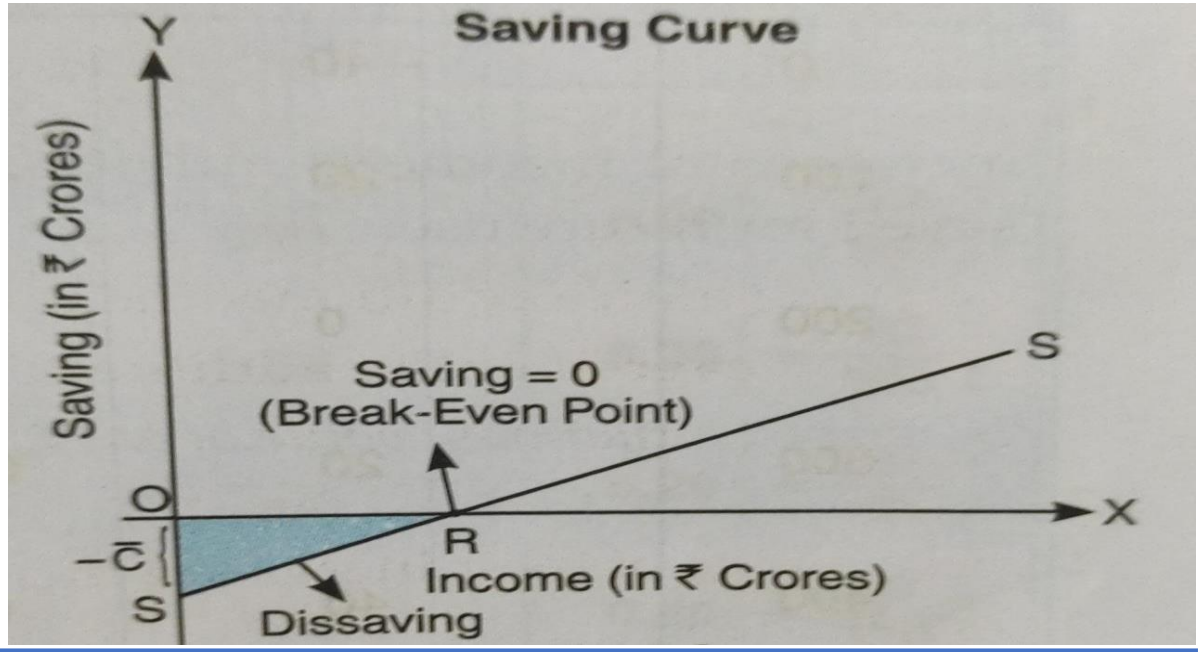
CONCEPT OF SAVING FUNCTION

- **An expression establishing the functional/algebraic relation between Savings (S) & level of Income (Y).**

SAVING SCHEDULE

Income	Consumption	Saving (Y-C)
0	5	- 5
10	10	0
20	15	5
30	20	10
40	25	15
50	30	20

SAVING CURVE



IMPORTANT OBSERVATIONS FROM SAVING SCHEDULE & SAVING CURVE

- ✓ When Y=O, S= - 5. This is called "Autonomous Saving". C= 5 at this level.
- ✓ This happens because if Consumption is positive at zero level of Income, then there would be Dissavings of the same magnitude
- ✓ S rises with a rise in Y. Hence, S=f(Y).
- ✓ S is positively related to Y.
- ✓ S always remains lower than Y.
- ✓ Saving curve starts from point S on the Y-axis indicating negative Saving when Y=0.
- ✓ Saving curve crosses X-axis at point R, which is known as 'Break-even point'.
- ✓ After Break-even point, Saving is positive.

Algebraic expression of Saving Function : $S = -\bar{C} + (1-b)\,Y$

Where, S= Saving function ; $-\bar{C}$ = negative Saving when Y=0 ; 1-b= Marginal Propensity to save ; Y= level of income

CONCEPT OF PROPENSITY TO SAVE

Definition: The proportion of total income or of an increase in income that consumers tend to save rather than to spend on goods & services.

There are two technical aspects of Propensity to save:

1. **Average Propensity to Save(APS) :** Ratio of Saving to the corresponding level of Income. **APS= S/Y.**

Features of APS :

- **APS can never be 1 or more than 1:-** because Saving can never be equal to or more than Income.
- **APS can be Zero :-** at the Break-even point.
- **APS can be negative :-** at income levels which are lower than the Break-even point.
- **APS rises with increase in Income :-** because the proportion of Income saved keeps on increasing.

CONCEPT OF PROPENSITY TO SAVE

2.Marginal Propensity to Save(MPS) : Ratio of change in Savings to the change in total Income. MPS= ΔS/ΔY

Features of MPS :

- **MPS can be Zero :- this will happen when ΔC=ΔY.**
- **MPS can be equal to 1 :- this will happen when ΔS=ΔY.**
- **MPS can never be negative :- because ΔC can never be more than ΔY.**
- **MPS can not be more than 1 :- because ΔS can never be more than ΔY.**

NOTE: THE SLOPE OF SAVINGS CURVE IS DETERMINED BY MPS.

RELATIONSHIP BETWEEN PROPENSITY TO CONSUME & PROPENSITY TO SAVE

APC +APS = 1

APC = C/Y and APS = S/Y

We also know that Y=C+S.

So that,

APC + APS = C/Y + S/Y

$$= \frac{C+S}{Y} = Y/Y = 1$$

MPC + MPS = 1

MPC =ΔC/ΔY and MPS = ΔS/ΔY

We also know that ΔC+ΔS = ΔY.

So that,

MPC + MPS = ΔC/ΔY + ΔS/ΔY

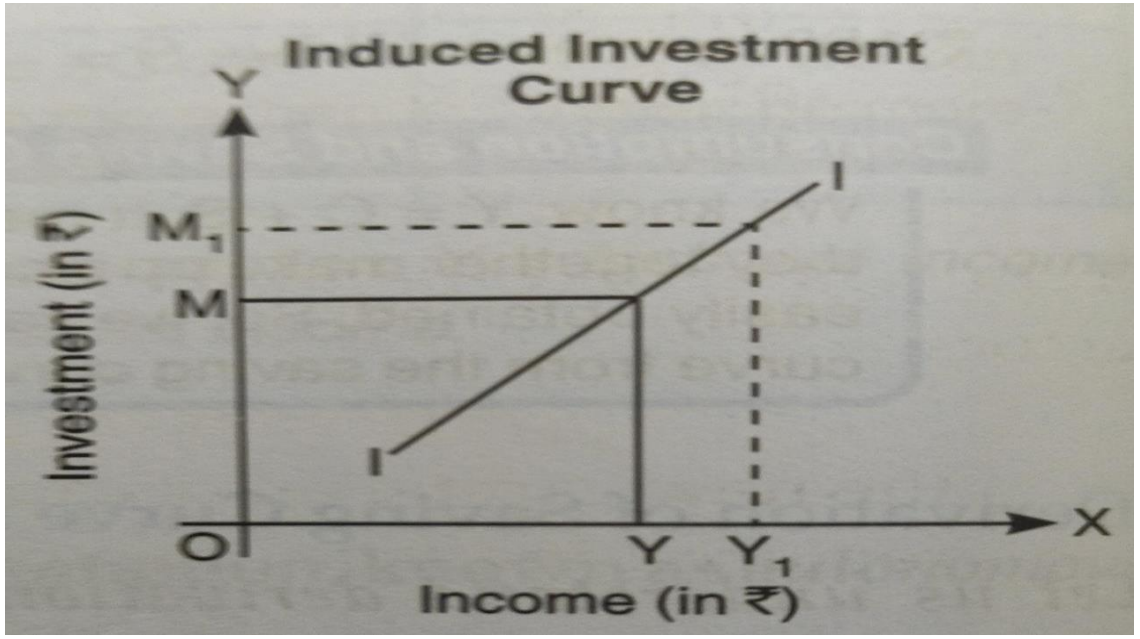
= ΔC+ ΔS = ΔY/ ΔY =1

CONCEPT OF INVESTMENT FUNCTION

- **Investment refers to the expenditure incurred on creation of new capital assets.**
- **Investment expenditure is classified under two heads:**

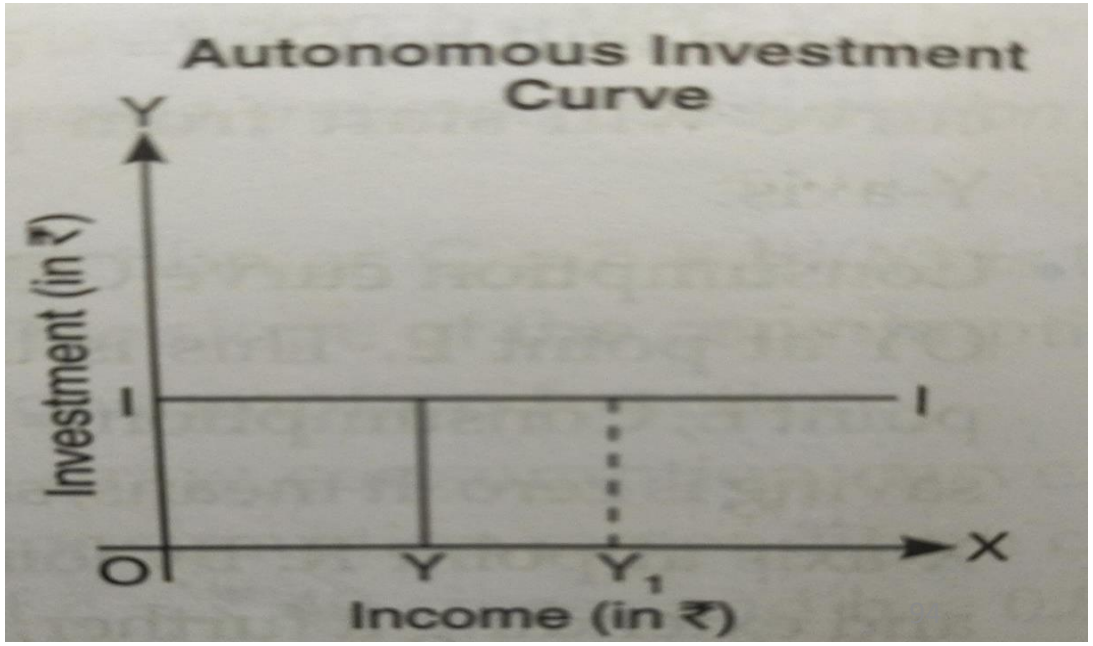
INDUCED INVESTMENT

- ✓ Depends on profit expectations & is directly influenced by income level.
- ✓ Generally done by private sector.
- ✓ Investment curve slopes upwards as it is income elastic



AUTONOMOUS INVESTMENT

- ✓ Not affected by changes in the level of income & is not induced solely by profit motive.
- ✓ Generally done by government sector.
- ✓ Investment curve is parallel to X-axis as it is income inelastic.



DETERMINANTS OF INVESTMENT

According to Keynes, the decision to invest depends on two factors ;

1. **Marginal Efficiency of Investment (MEI) : Expected rate of return from an additional investment.**

MEI is determined by:

a) **Supply price : Cost of producing a new asset of that kind.**

b) **Prospective Yield : Net return expected from capital asset over its lifetime.**

2. **Rate of Interest (ROI) : Cost of borrowing money for financing the investment.**

There is an inverse relationship between ROI & volume of investment.

NOTE : The profitability of an investment can be worked out by comparing MEI with ROI. If MEI > ROI then investment is profitable.

SHORT-RUN EQUILIBRIUM OUTPUT

CONCEPT OF SHORT RUN

- According to Keynes, short run is a period of time during which 'technology' plays no role in the determination of output in the economy.
- Output is determined exclusively by the level of employment in the economy.
- Higher level of employment leads to higher level of output and vice-versa.
- Since technology is constant, there is one to one relationship between output & employment.
- Hence, level of employment measures the level of output(GDP) in the economy.
- Output can not increase once there is full employment in the economy.

CONCEPT OF EQUILIBRIUM OUTPUT

- That level of output where AS = AD.
- Also known as 'Equilibrium GDP' OR 'Equilibrium Income'
- Equality between AS & AD implies equality between Y & AD because Y=AS.
- Thus, equilibrium is struck when either AS=AD OR Y=AD.
- In such a state, **Actual stock of the producers = Required(desired) stocks of the producers.**

DETERMINATION OF EQUILIBRIUM LEVEL NATIONAL INCOME EMPLOYMENT AND OUTPUT

- **Equilibrium is achieved when :**

  AD = AS.....(1),

- **We know that AD is sum total of Consumption (C) and Investment (I)**

  AD = C + I.....(2),

- **Also, AS is sum total of Consumption (C) and Saving (S)**

  AS = C + S.....(3),

- **Substituting (2) and (3) in (1), we get:**

  C+I = C+S or

  S = I.

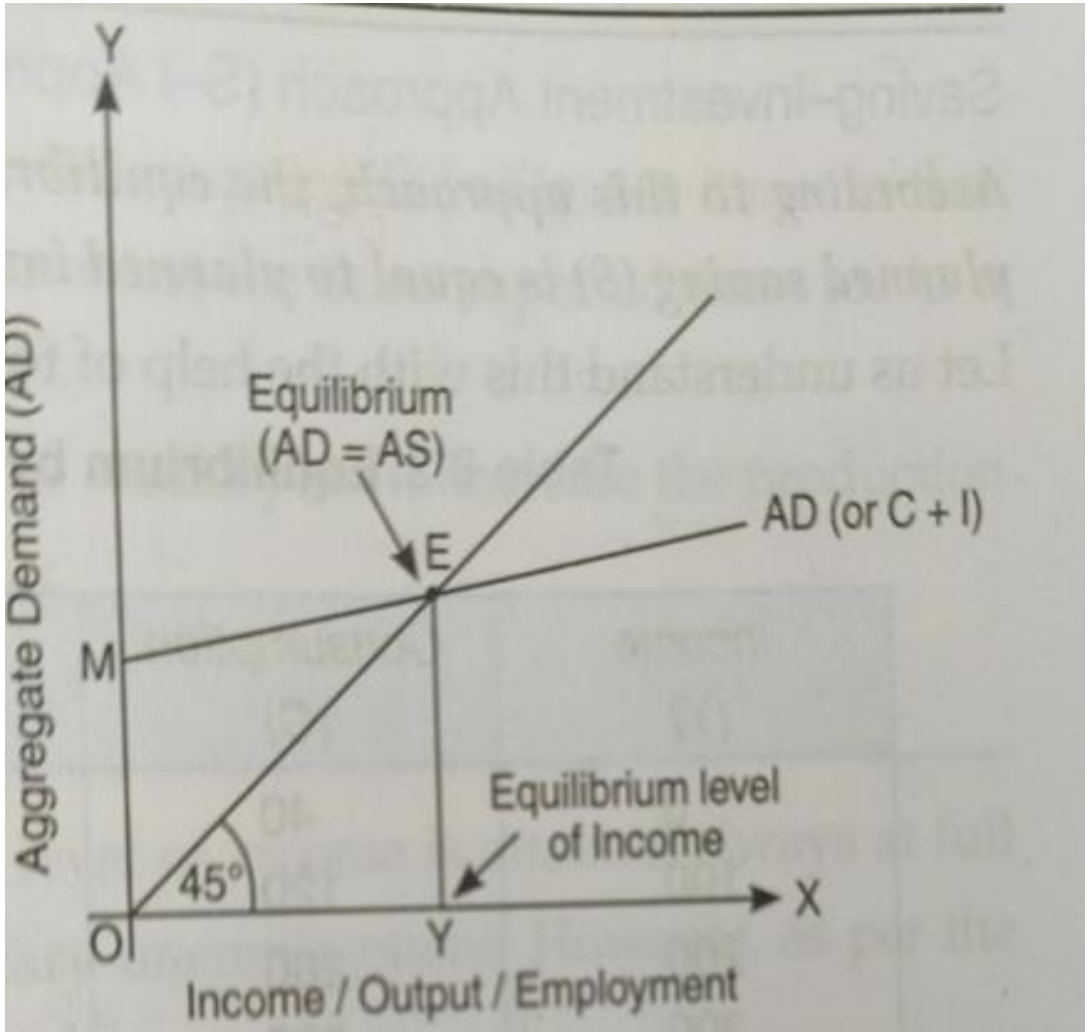
- **So we have two approaches for determining the equilibrium level of income and employment in the economy:**

  (i) AD=AS Approach

  (ii) S = I Approach

DETERMINATION OF EQUILIBRIUM LEVEL NATIONAL INCOME EMPLOYMENT AND OUTPUT

AD = AS Approach :– Equilibrium level is determined when AD is equal to AS.

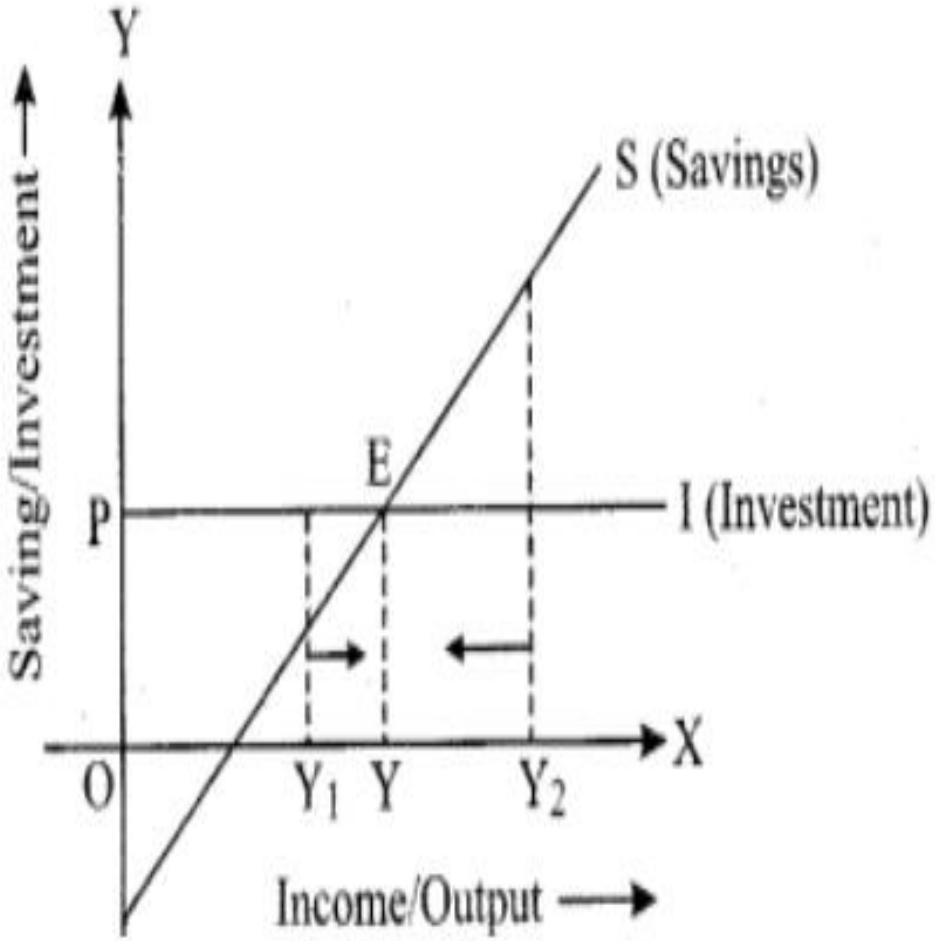


WHEN AD & AS ARE NOT EQUAL:

- **AD>AS = It means that consumers and firms together would be buying more goods than the firms are willing to produce. As a result planned inventory would fall below the desired level. To bring the inventory back to the desired level, firms would resort to increase in employment and output till the economy is back at output level at OY, where AD is become to AS and there is no further tendency to change.**
- **AS>AD = It means that consumers and firms together would be buying less goods than the firms are willing to produce. As a result planned inventory would rise. To clear the unwanted increase in inventory, firms Plan to decrease the employment and output till the economy is back at output level at OY, where AD is become to AS and there is no further tendency to change.**

DETERMINATION OF EQUILIBRIUM LEVEL NATIONAL INCOME EMPLOYMENT AND OUTPUT

S = I Approach :– Equilibrium level is determined when I = S.



WHEN S & I ARE NOT EQUAL:

- **S < I = If planned saving is less than planned investment, i.e. before point E. It means that households are consuming more and saving less than what the firms expected them to. As a result planned inventory would fall below the desired level. To bring the inventory back to the desired level, firms would plan to increase in employment and output till saving and investment equal to each other and there is no further tendency to change.**
- **S > I = If planned investment is less than planned saving, i.e. after point E. It means that households are not consuming as much as the firms expected them to. As a result inventory rises above the desired level. To clear the unwanted increase in inventory, firms would plan to reduce the production till saving and investment equal to each other and there is no further tendency to change.**

CONCEPT OF INVESTMENT MULTIPLIER

- **Investment Multiplier (K) expresses the relationship between an initial increment in investment (ΔI) and the resulting increase in aggregate income (ΔY).**

- **The operation of the Investment multiplier ensures that a change in investment causes a change output (or change in national income) by an amplified amount, which is a multiple of the change in investment.**

- **Multiplier refers to the change in income to a change in investment.**

- **Symbolically,**

$$\Delta Y = K.\Delta I$$

$$\text{OR, } K = \Delta Y / \Delta I$$

$$\text{OR, } K = 1/1\text{-MPC}$$

$$\text{OR, } K = 1/MPS$$

FUNCTIONING OF INVESTMENT MULTIPLIER

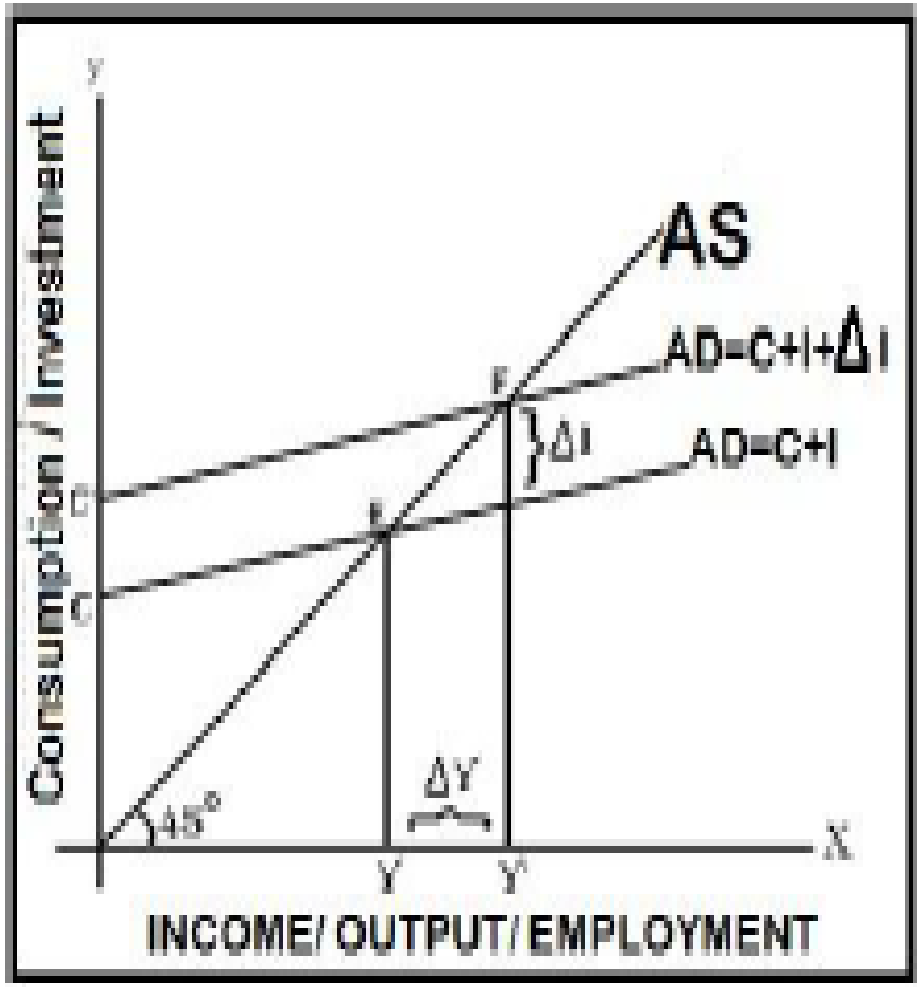
- **The working of the Investment multiplier tells as to what will be the final change in income as a result of change in investment.**
- **Change in investment causes a change in income. As a result, there is a change in consumption which in turn leads to a multiple change in income.**
- **Symbolically…… ΔI→ΔY→ΔC→ΔY**

PRESENTATION BY A HYPOTHETICAL NUMERICAL EXAMPLE

This table is based on assumption that initial increase in Investment is 1000 and MPC is 0.80.

Round	ΔI	ΔY	ΔC
I	1000	1000	0.8*1000=800
II	--	800	0.8*800=640
III	--	640	0.8*640=512
IV	--	512	0.8*512=409.6
--	--	--	--
--	--	--	--
--	--	5000	4000

DIAGRAMMATIC PRESENTATION OF INVESTMENT MULTIPLIER



- The economy is in equilibrium at point E.
- It corresponds to OY level of income at equilibrium.
- With additional investment, ΔI, equilibrium shifted to point F on AD = C+I+ΔI.
- F corresponds to OY' income level at equilibrium.
- Equilibrium income increases from OY to OY'.
- The additional income YY' is greater than the additional investment CC' or ΔI.
- It is due to the **'Multiplier effect.'**

CHARACTERISTICS OF MULTIPLIER

1. **Multiplier works in both the forward and backward directions.**

- ✓ **Forward working of multiplier shows multiple increases in income in response to given increase in investment.**
- ✓ **Backward working of multiplier shows multiple decrease income in response to given decrease in investment.**

2. **There is a positive relationship between MPC and multiplier.**

- ✓ **Higher the value of MPC, higher is the value of Multiplier.**
- ✓ **Lower the value of MPC, Lower is the value of Multiplier.**

3. **There is a inverse relationship between MPS and multiplier.**

- ✓ **Higher the value of MPS, Lower is the value of Multiplier.**
- ✓ **Lower the value of MPS, Higher is the value of Multiplier.**

4. **Aggregate Demand cause the multiplier effect i.e. increase components of AD brings multiplier effect (Forward Effect)**

ALGEBRAIC RELATIONSHIP BETWEEN MULTIPLIER AND MPC

- There exists a direct relationship between MPC and the value of multiplier. Higher the MPC, more will be value of multiplier and vice-versa.
- We know that the value of output is equal to aggregate spending. Thus, Y=C+I
- We also know that any change in income (ΔY) is always equal to (ΔC+ΔI). Thus, ΔY=ΔC+ΔI
- Dividing both the sides by ΔY, we get,
  ΔY/ΔY=ΔC/ΔY+ΔY/ΔI
  OR 1/K= 1-mpc
  K=1/1-MPC OR K=1/MPS

- At equilibrium price, Y=C+I .....(1)
- We know, C= a+bY.....(2)
- Substituting value of C we get,
  Y=a+bY+I
  Y-bY =a+I
  Y(1-b)=a+I
  Y=1/(1-b)*(a+I)
- b is nothing but the MPC, so we have,
  Y=1/1-mpc*(a+I)
- To get the effect of a change in investment on income, we differentiate the equation to obtain
  ΔY=1/1-mpc *ΔI

K=ΔY/ΔI = 1/1-MPC OR K = 1/MPS

CONCEPT OF FULL EMPLOYMENT

- **All those people, who are willing and able to work at the existing wage rate, get work without any undue difficulty.**
- **Demand for labour = Supply of labour, corresponding to a given wage rate.**
- **Labour market is cleared and is in a state of equilibrium.**
- **Full employment does not mean a situation of Zero unemployment.**
- **The minimum rate of unemployment that must always exist in the economy is called 'natural rate of unemployment'.**
- **It means that there always exists some degree of unemployment known as 'natural rate of unemployment' which occurs due to time taken in adjustments in response to constant changes in supply-demand parameters in the economy.**

CONCEPT OF INVOLUNTARY UNEMPLOYMENT

- **All those people, who are willing and able to work at the existing wage rate, do not get work.**

- **The economy fails to create enough jobs because planned output is lower than potential full employment output due to lack of AD.**

- **There is excess capacity in the economy and some people are forced to remain unemployed.**

- **Problem of unemployment refers to the problem of Involuntary unemployment and not the problem of voluntary unemployment.**

PROBLEM OF EXCESS AND DEFICIENT DEMAND

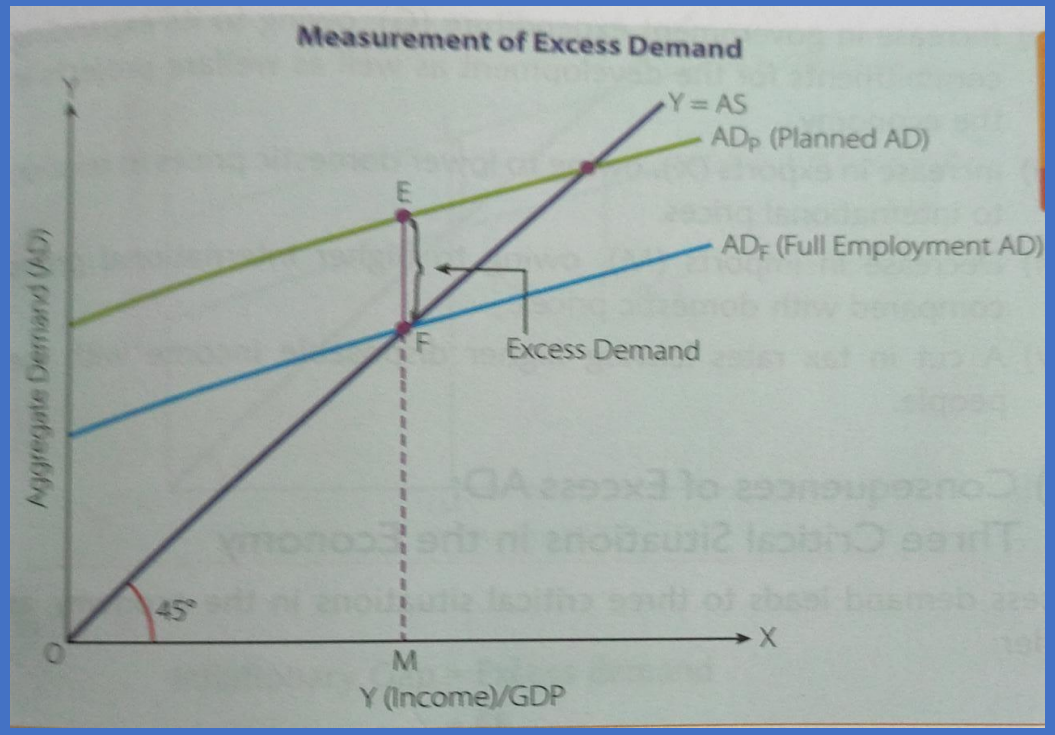
- **Equilibrium is struck when AD=AS or S=I. However, it need not necessarily correspond to the situation of full employment when resources are fully employed.**
- **Thus equilibrium may arise in the following three situations :**

- **FULL EMPLOYMENT EQUILIBRIUM :-It refers to a situation when AD = AS at full employment level. So full employment means there is no involuntary unemployment in economy.**
- **UNDER EMPLOYMENT EQUILIBRIUM :-It refers to a situation when AD = AS at corresponding to under – employment of resources. It occurs prior to the full employment level.**
- **OVER FULL EMPLOYMENT EQUILIBRIUM :- It refers to a situation when the resources have been fully employed but AD=AS after full employment level**

PROBLEM OF EXCESS & DEFICIENT DEMAND

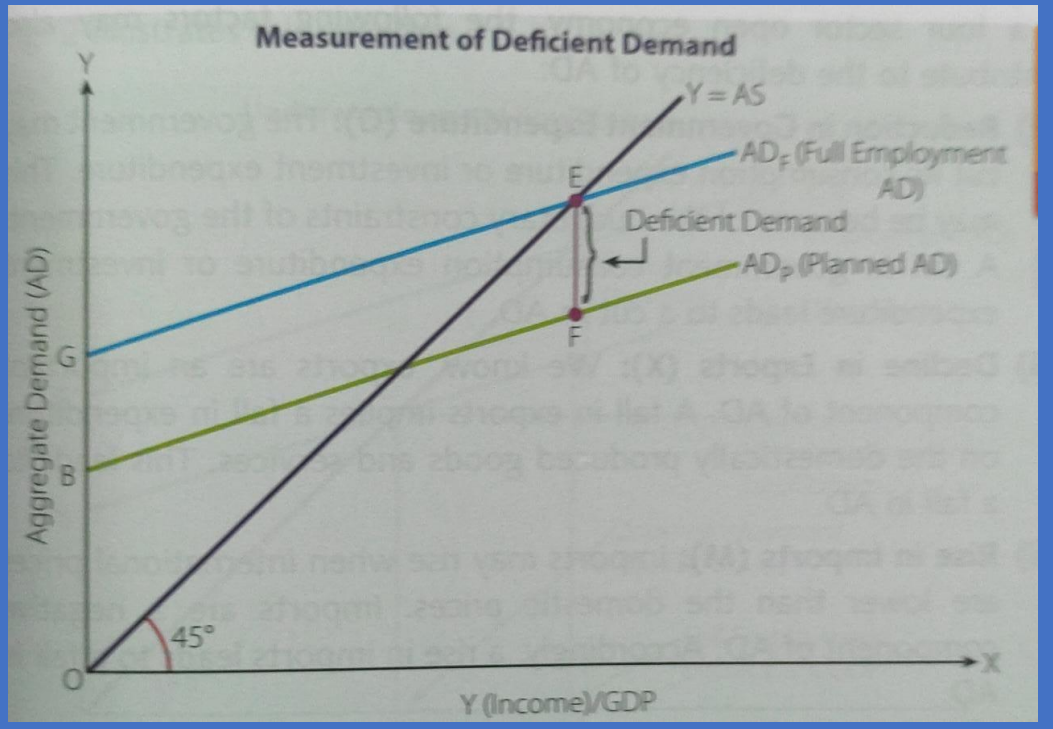
CONCEPT OF EXCESS DEMAND

- situation when actual aggregate demand is more than aggregate demand required at the full employment equilibrium.



CONCEPT OF DEFICIENT DEMAND

- situation when actual aggregate demand is less than aggregate demand required at the full employment equilibrium.



PROBLEM OF EXCESS & DEFICIENT DEMAND

CAUSES OF EXCESS DEMAND

- Increase in private consumption expenditure (C) mainly due to increase in propensity to consume or fall in propensity to save.
- Increase in investment expenditure(I) due to bullish business expectations.
- Increase in government expenditure(G) due to expanding welfare projects.
- Increase in Exports(X) due to lower domestic prices in relation to R.O.W
- Decrease in Imports(M) due to higher international prices compared with domestic prices.
- Cut in tax rates which leaves higher disposable income in the hands of the people.

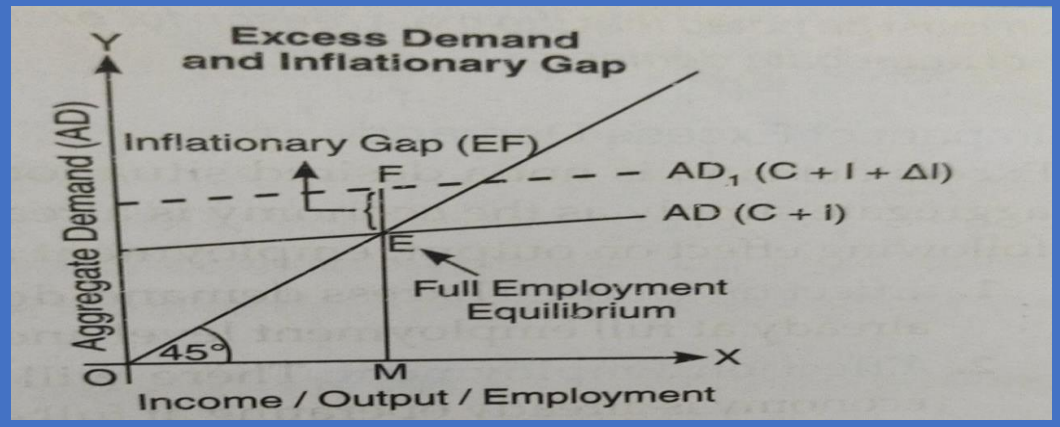
CAUSES OF DEFICIENT DEMAND

- Decrease in private consumption expenditure (C) mainly due to reduction in propensity to consume or rise in propensity to save.
- Decrease in investment expenditure(I) due to bearish business expectations.
- Reduction in government expenditure(G) due to cut in government C & I expenditure.
- Decrease in Exports(X) due to higher domestic prices in relation to R.O.W
- Increase in Imports(M) due to lower international prices compared with domestic prices.
- Rise in tax rates which lesser disposable income in the hands of the people.

PROBLEM OF EXCESS & DEFICIENT DEMAND

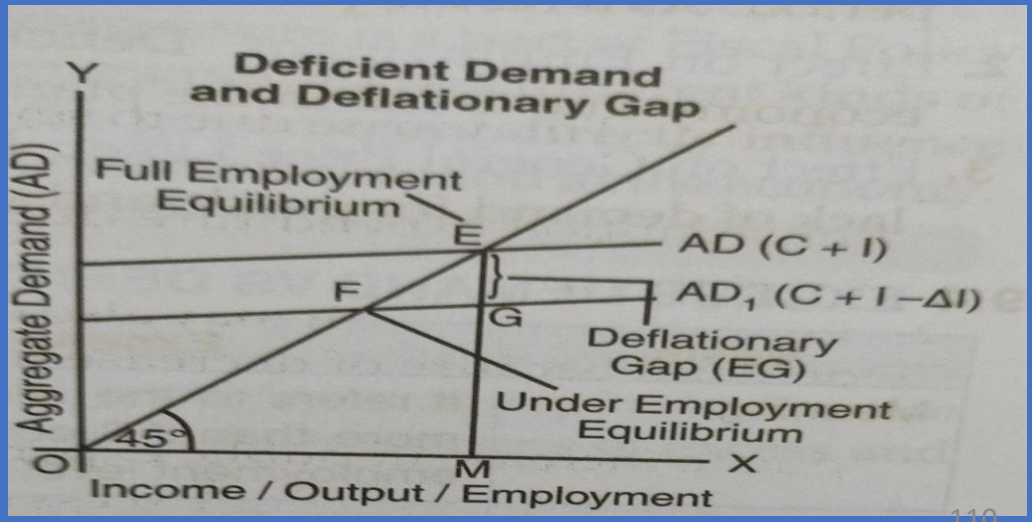
CONSEQUENCES OF EXCESS DEMAND

- Leads to over full employment equilibrium as owing to excess of AD, equilibrium between AD & AS is arrived at that level of GDP which is beyond the full employment level.
- Creates Inflationary Gap in the economy. **The excess AD causes pressure of demand on existing resources, rise in cost of production, rise in general price level whereas output level remains constant because resources are already fully employed.**



CONSEQUENCES OF DEFICIENT DEMAND

- Leads to Underemployment equilibrium as owing to deficiency of AD, equilibrium between AD & AS is arrived at that level of GDP which is lower than the full employment level.
- Creates Deflationary Gap in the economy. **The low AD causes low investment, low output, low income 7 again low AD.** The economy slips into 'low-level equilibrium trap'.



PROBLEM OF EXCESS & DEFICIENT DEMAND

CONSEQUENCES OF EXCESS DEMAND

- **Effect on Output : Level of output/GDP remains static since economy is already at full employment level and there is no idle capacity in the economy.**
- **Effect on Employment : No change in the level of employment since economy is already at full employment level and there is no involuntary unemployment.**
- **Effect on General Price Level : Since AD>AS at full employment level, it causes rise in general price level/inflation.**
- **Wage-Price Spiral : The excess AD causes pressure of demand on existing resources, rise in wages(cost of production), rise in general price level, again rise in cost of production causing rise in wages again. Wages catch prices & prices catch wages.**
- **Loss of Profit : Due to lack of excess capacity, the producers are not able to raise their supplies. There is a loss of profit due to unfulfilled demand.**

CONSEQUENCES OF DEFICIENT DEMAND

- **Effect on Output : Due to lack of AD, there will be increase in the inventory stock. Producers will be forced to plan for lesser production causing planned output to fall.**
- **Effect on Employment : Due to fall in planned output, involuntary unemployment will be created in the economy.**
- **Effect on General Price Level : Since AD<AS at full employment level, there will be lack of demand for goods & services in the economy causing fall in general price level .**
- **Loss of Profit : Due to lack of demand for goods & services producers are not able to clear their stocks leading to 'price crash'.. There is a loss of profit due to reduction in overall level of economic activity.**

MEASURES TO CORRECT EXCESS & DEFICIENT DEMAND

FISCAL POLICY/ MEASURES : Revenue & expenditure policy (Budgetary Policy) of the government to correct situations of excess & deficient demand in the economy.

MEASURES TO CORRECT EXCESS DEMAND

- Reduction in Government Expenditure: It will cause 'withdrawals' from circular flow of income in the economy which will help to combat Inflation.
- Raising the Taxes : By increasing the tax burden on the households, the government reduces their disposable income helping to restrict demand and thereby rising prices.
- Increase in Public Borrowing/Public Debt : Government steps up public borrowing by offering attractive rate of interest. This reduces liquidity with the public & hence rising prices curtailed.
- Reduced Borrowing from the Central Bank : Lesser borrowing from the central bank reduces the amount of liquidity in the economy thereby managing excess demand.

MEASURES TO CORRECT DEFICIENT DEMAND

- Increase in Government Expenditure: It will cause 'injections' into circular flow of income in the economy which will help to combat Deflation.
- Lowering the Taxes : By decreasing the tax burden on the households, the government increases their disposable income helping to raise demand and thereby managing deflation.
- Decrease in Public Borrowing/Public Debt : Government reduces public borrowing. Public is left with greater liquidity to cause higher demand demand and thereby managing deflation.
- Increased Borrowing from the Central Bank : Greater borrowing from the central bank releases more liquidity in the economy thereby managing deficient demand.

MEASURES TO CORRECT EXCESS & DEFICIENT DEMAND

MONETARY POLICY/MEASURES : Regulating the cost & availability of credit in the economy to correct situations of excess and deficient demand.

MONETARY POLICY-QUANTITATIVE

MEASURE	EXCESS DEMAND	DEFICIENT DEMAND
BANK RATE	INCREASE	DECREASE
REVERSE REPO RATE	INCREASE	DECREASE
OPEN MARKET OPERATIONS	SALE OF SECURITIES	PURCHASE OF SECURITIES
CASH RESERVE RATIO	RAISED	LOWERED
STATUTORY LIQUIDITY RATIO	RAISED	LOWERED

MONETARY POLICY –QUALITATIVE

MEASURE	EXCESS DEMAND	DEFICIENT DEMAND
MARGIN REQUIREMENT	RAISED	LOWERED
CREDIT RATIONING	INTRODUCED	WITHDRAWAN
MORAL SUASION	ADVISE TO PURSUE DEAR MONEY POLICY	ADVISE TO PURSUE CHEAP MONEY POLICY

SUGGESTED VIDEOS

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SOURCE ACKNOWLEDGMENT:

1. Introductory Macroeconomics : NCERT
2. Diksha Portal; Ministry of Education Govt. of India.
2. Introductory Macroeconomics : Jain & Ohri
3. Introductory Macroeconomics : Sandeep Garg

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UNIT 4: GOVERNMENT BUDGET & THE ECONOMY

UNIT 4: GOVERNMENT BUDGET & THE ECONOMY

Presented in India on February 1st by the Finance Minister for approval by the Parliament. It unfolds

- **Financial performance of the Government over the past One year.**
- **Financial programs and policies of the Government for the next ONE year.**
- **Article 112 of the Indian Constitution requires the ANNUAL FINANCIAL STATEMENT/BUDGET to be presented in both the houses of the Parliament. Both the Centre and the States have their own Budgets.**

BUDGETARY / FISCAL POLICY OF GOVERNMENT

The programs and policies of the Government, as presented in the Budget are known as "Budgetary /Fiscal Policy" of the Government.

It has TWO aspects :

REVENUE ASPECT	EXPENDITURE ASPECT
Reveals Expected Receipts of the Government.	Reveals Expected Expenditure of the Government.

THUS, GOVERNMENT BUDGET IS A STATEMENT OF EXPECTED RECEIPTS AND EXPECTED EXPENDITURES OF THE GOVERNMENT FOR THE COMING FINANCIAL YEAR THAT REVEALS BUDGETARY POLICY OF THE GOVERNMENT TO ACHIEVE GROWTH WITH STABILITY

OBJECTIVES OF GOVERNMENT BUDGET

(1) ACHIEVE GDP GROWTH: It is the central objective which is achieved in two ways :

a) By making Public Investment Expenditure.
b) By inducing Private Investment Expenditure through tax rebates and subsidies.

(2) ALLOCATION OF RESOURCES : Directing the resource allocation in such a manner that there is a balance between the goals of PROFIT MAXIMISATION & SOCIAL WELFARE. Heavy Taxation for socially harmful goods like cigarettes and subsidies for socially useful goods.

OBJECTIVES OF GOVERNMENT BUDGET

(3) **PROVISION OF PUBLIC GOODS** : Those goods which satisfy the collective needs of the people. For e.g, Defence, law & order. Scarcity of resources and Demand & Supply forces do not allow enough production of these goods. Budgetary allocation of funds ensures that these goods & services are sufficiently provided to the people.

(4) REDISTRBUTION OF INCOME & WEALTH : All welfare states aim at **SOCIAL JUSTICE.** This objective is achieved through **EQUITABLE DISTRIBUTION OF INCOME & WEALTH** using the following strategies :

a) Imposing taxes on the rich and giving subsidies to the poor

b) Supplying food grains and other essential goods & services to BPL population at a low price

OBJECTIVES OF GOVERNMENT BUDGET

(5) BALANCED REGIONAL GROWTH : Budgetary policy places priority on the development of backward regions of the country. This is achieved through :

a) liberal Tax laws for the backward regions.

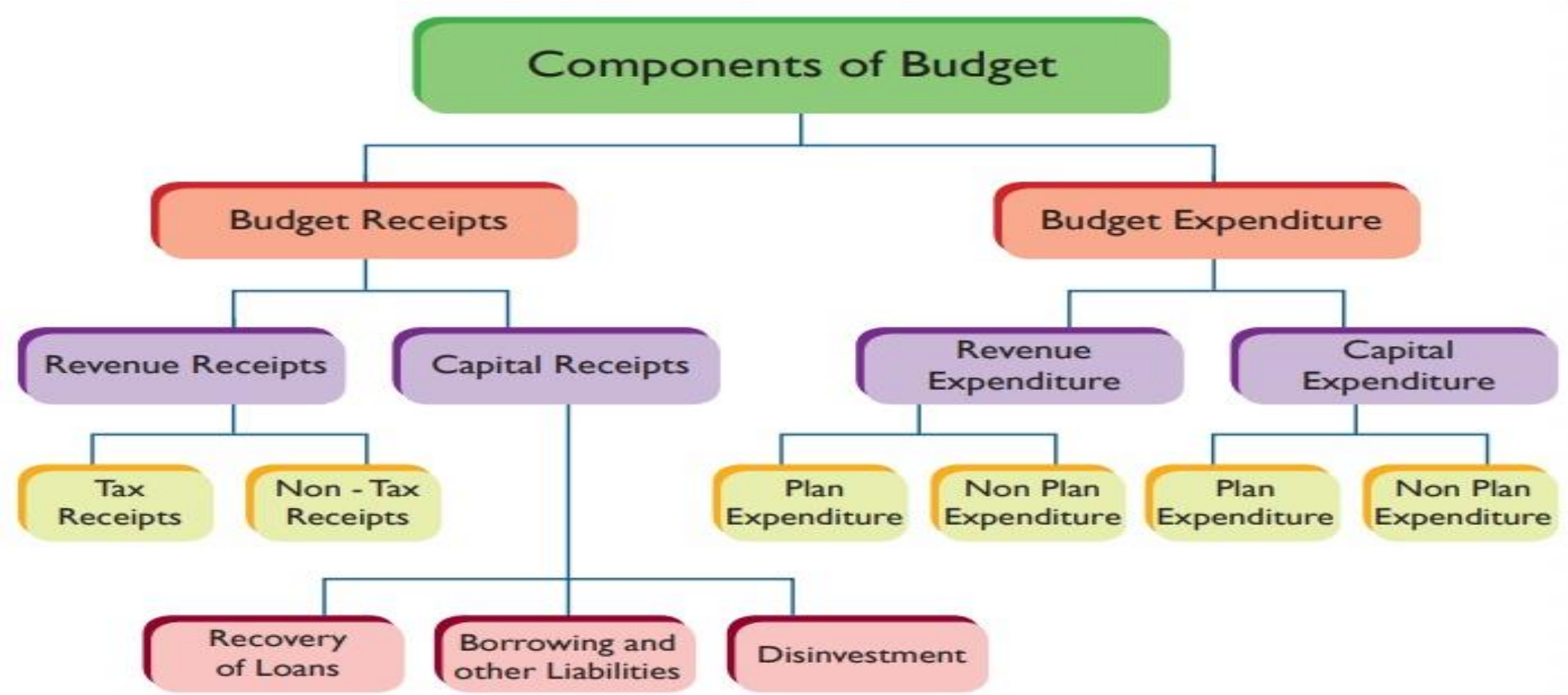
b) establishment of Special Economic Zones(SEZs) in the backward regions.

(6) EMPLOYMENT OPPORTUNITIES :Fiscal policy focuses on generation of employment through investment in public enterprises. Budgetary provisions are made for schemes offering employment to poorer sections.

OBJECTIVES OF GOVERNMENT BUDGET

(7) ECONOMIC STABILITY : The market forces of demand & supply generate TRADE/BUSINESS CYCLES in an economy. These refer to the phases of RECESSION,DEPRESSION,RECOVERY & BOOM. Budget is used as an important policy instrument to save the economy from the extremities of the Business cycles so that state of economic stability can be achieved. The greater the economic stability, the greater is the inducement to invest and higher is the rate of growth and development.

COMPONENTS OF BUDGET



BUDGET RECEIPTS

Classified as :

1) **REVENUE RECEIPTS: Money receipts of the government which show the following two characteristics:**

a) **Do not cause any reduction in assets of the government.**

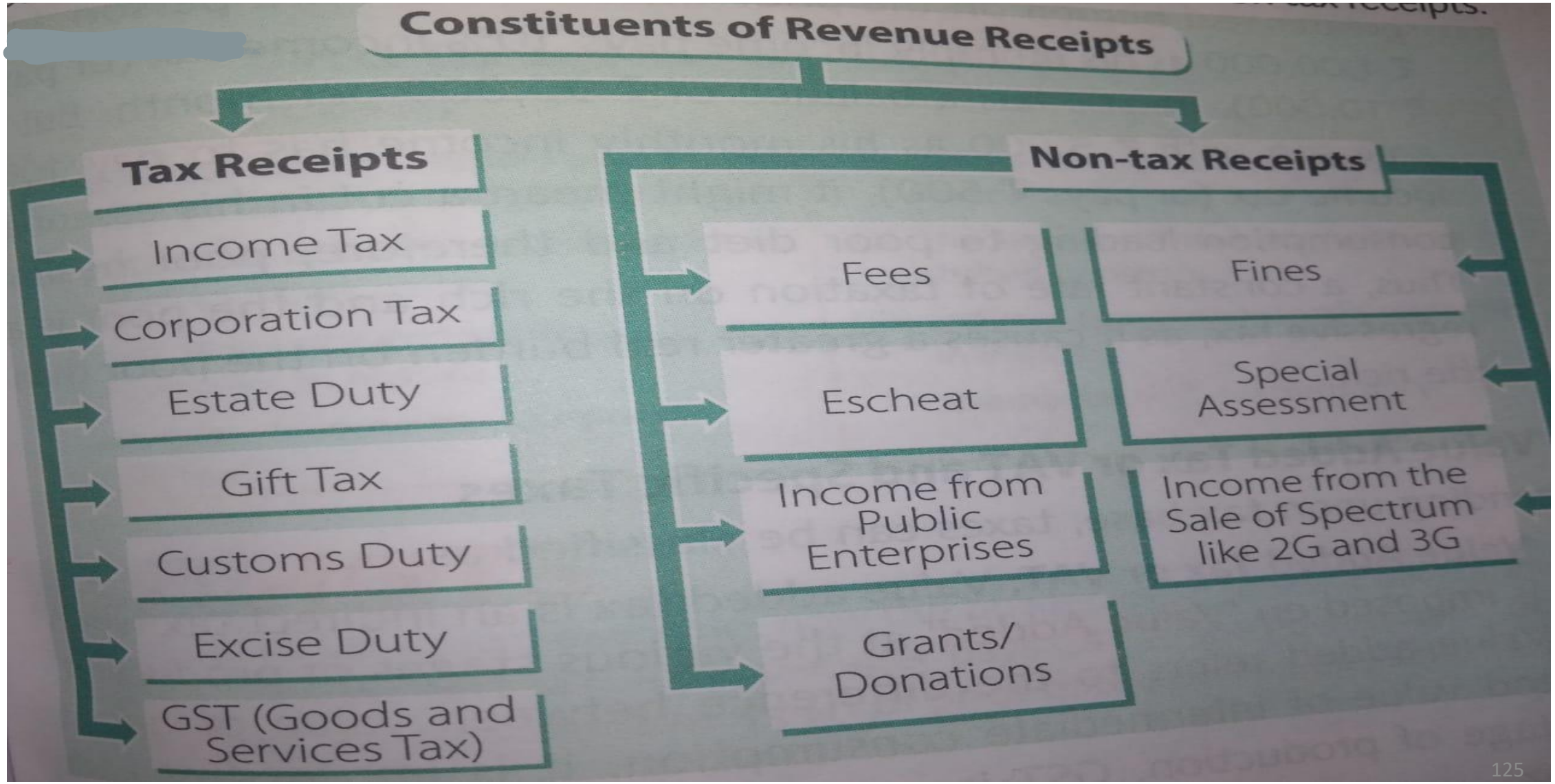
b) **Do not create any corresponding liability for the government.**

(Neither Reduces Assets Nor Creates Liability)

For e.g. Tax receipts neither reduce assets nor create liability & hence are Revenue Receipts. On the other hand, if government receives money by selling its shares, it causes reduction in assets of the government & hence not treated as Revenue Receipts.

HINT : NRANCL

CONSTITUENTS OF REVENUE RECEIPTS



TAX RECEIPTS

A tax is a compulsory payment to the government by the households , firms or other institutional units

TYPES OF TAXES:

(a) Progressive and Regressive Tax: A tax is said to be progressive when the rate of tax increases with an increase in income. It causes greater real burden on rich and less on poor. While a tax is said to be regressive when it causes a greater real burden on the poor than on the rich.

(b) Value-Added Tax and Specific Tax : Value-added tax is an indirect tax which is imposed at each stage of production. For e.g. GST. While Specific Tax is levied on a commodity on the basis of its units , size or weight.

(c) Direct Tax and Indirect Tax : A tax whose final burden falls on the person on whom it is imposed. The tax burden can not be shifted on any other person. While tax is indirect when it is imposed on one person but is borne by some other person. The burden of tax is partly or wholly shifted .

NON-TAX RECEIPTS

Those money receipts which arise from sources, other than taxes.

Examples of non-tax receipts :

a) **Fees:** Receipts, which arise from sources, other than taxes such as, passport fee, license fee, birth & death registration fee etc.

b) **Fines:** Receipts which arise from payments made by law breakers to the government.

c) **Escheat:** Revenue made by the government from the property left by the people without a legal heir.

d) **Special Assessment:** Receipts which arise from the payment made by the owners of those properties whose value has appreciated due to the developmental activities of the government.

NON-TAX RECEIPTS

e) Income from Public enterprises: Profits of Government enterprises are a source of revenue for the government.

f) Income from Sale of Spectrum: The sale of Spectrum such as 2G, 3G, 4 G etc. has emerged as a significant source of Revenue for the government in the last few years.

g) Grants & Donations : During the times of natural calamities, government receives grants and donations from various sources, both domestically and internationally. This also forms a source of non-tax receipts for it.

BUDGET RECEIPTS

2) CAPITAL RECEIPTS :Money Receipts of the government which show the following two characteristics:

a) **Those receipts which cause a reduction in the assets of the government.**

b) **Those receipts which create a liability for the government.**

(Reduces Assets and Creates Liability)

For e.g. Money received by government by selling its shares cause a reduction in its assets. Similarly, Loans taken by the government are a liability on it. Hence both are treated as Capital Receipts in the Budget.

HINT : RACL

(Technique....NRANCL ...remove the alphabet N)

CONSTITUENTS/CLASSIFICATION OF CAPITAL RECEIPTS

RECOVERY OF LOANS	BORROWINGS & OTHER LIABILITIES	OTHER RECEIPTS
Central government gives loans to the states in times of financial crisis. When these loans are recovered, it reduces the assets of the government.	Government borrows money from : • The general public (Market Borrowing) • RBI • Rest of the World All kinds of Borrowings create Liability.	It includes receipts of the government from DISINVESTMENT. It occurs when government sells off its shares of PSEs to private sector which causes reduction in the assets of the government.

BUDGET EXPENDITURE

Estimated Expenditure of the government during the Fiscal year.

Classified as :

1) **REVENUE EXPENDITURE: Money expenditure of the government which show the following two characteristics:**

a) **Do not create any asset for the government.**

b) **Does not cause reduction in the liability of the government.**

(Neither Creates Assets Nor Reduces Liability)

For e.g ,expenditure by government on old-age pensions, salaries, scholarships do not lead to any type of asset creation. Similarly, expenditure by central government to give grants to states during times of natural calamities do not reduce financial liability of the central government. Hence both are treated as Revenue Expenditure.

HINT : NCANRL

(Technique...NRANCL ..... swap the highlighted alphabets)

BUDGET EXPENDITURE

2) CAPITAL EXPENDITURE : That expenditure of the government which shows the following two characteristics :

a) It creates Assets for the government.

b) It causes reduction in the Liabilities of the government.

(Creates Assets and Reduces Liability)

For e.g, Shares of the companies purchased by the government create assets for it. Similarly, Repayment of its loans by the government reduces its liability. Hence, both can be treated as Capital Expenditures.

HINT : CARL

(Technique...NRANCL ..... swap the alphabets R & C and then cancel alphabet N at both the places)

BUDGET OF GOVERNMENT OF INDIA (IMPORTANT ITEMS OF BUDGET EXPENDITURE)

ITEMS OF REVENUE EXPENDITURE	ITEMS OF CAPITAL EXPENDITURE
1) Wage Bill of the government	1) Expenditure on land & building
2) Interest payments	2) Expenditure on machinery & equipment
3) Expenditure on Subsidies	3) Purchase of shares
4) Defence purchases	4)Loans by central government to the state governments/state corporations
NOTE: As a matter of convention, all grants given by centre to state governments/union territories are treated as Revenue Expenditure, even though some grants may result in creation of assets.	

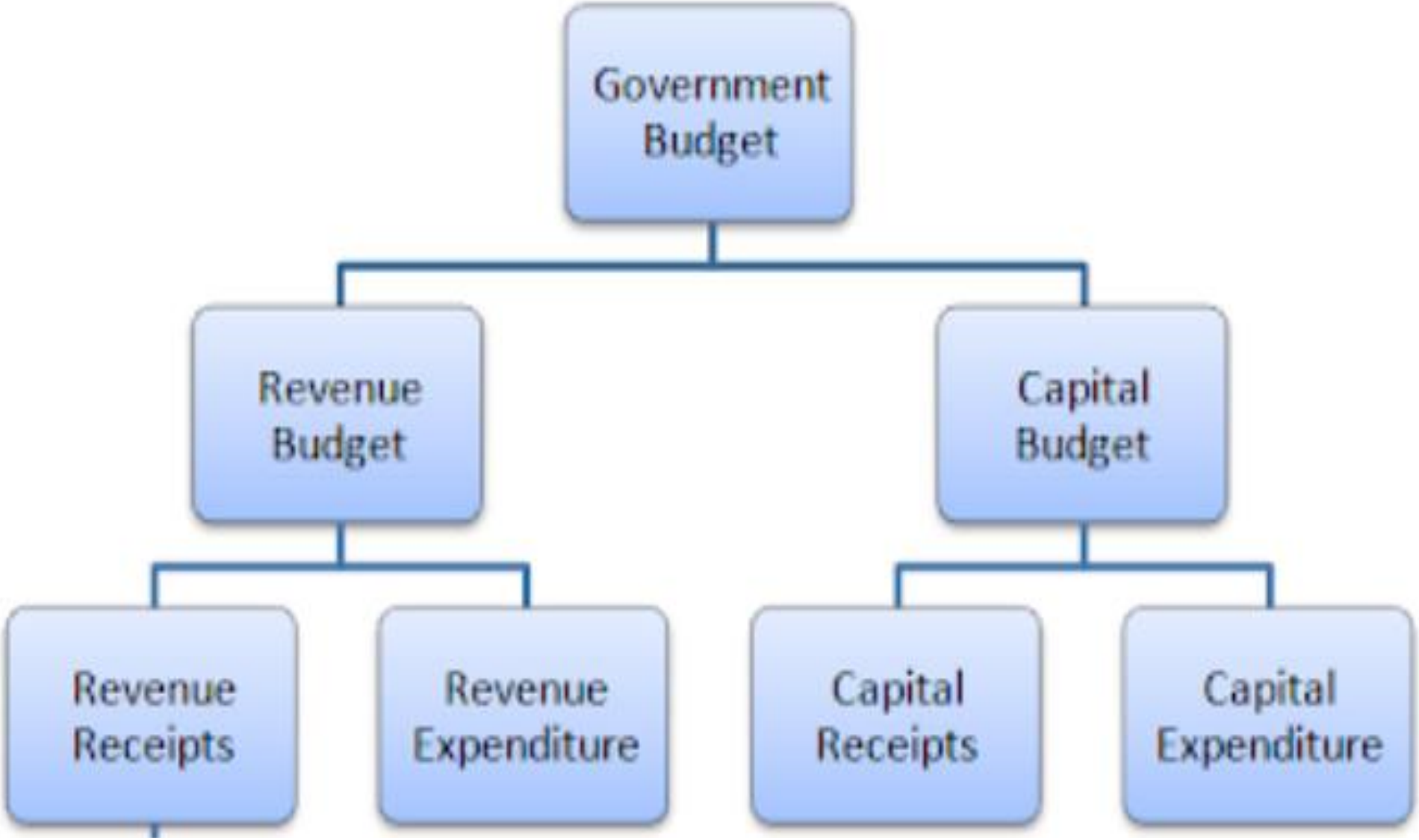
CONSTITUENTS/CLASSIFICATION OF REVENUE & CAPITAL EXPENDITURE

Both Revenue expenditure as well as Capital expenditure are classified as Planned and Non-Planned.

PLAN EXPENDITURE	NON-PLAN EXPENDITURE
1. Relates to expenditure on specified plans & programs of development	1. Relates to all expenditures of government other than Plan expenditure.
2. Relates to expenditure in the form of assistance given by central government to state governments.	2.Relates to expenditure on routine functioning of the government
3. It includes both Revenue expenditure(e.g. assistance to states) as well as Capital expenditure(e.g. construction of roads, bridges, hospitals)	3. It includes both Revenue as well as Capital expenditure. For e.g. expenditure on services such as law & order, defence, subsidies etc.

NOTE : After the abolition of Planning Commission, the government is also considering to abolish the classification of budgetary expenditure as Plan & Non-Plan expenditure.

Structure/Components of Government Budget may also be studied in terms of REVENUE BUDGET & CAPITAL BUDGET.



CONCEPT OF BUDGET/GOVERNMENT DEFICIT

- **Budget Deficit refers to a situation when Budget Expenditures of the government are greater than the Budget Receipts.**

- **Hence, Budget Deficit is the excess of Total Expenditure (Rev.Exp + Cap.Exp) over and above the Total Receipts (Rev.Rec + Cap.Rec)**

BUDGET DEFICIT= Budget Expenditure - Budget Receipt

(BD = BE – BR , when BE > BR)

IMPORTANT TYPES OF BUDGET DEFICIT WITH REFERENCE TO GOVERNMENT OF INDIA

1. REVENUE DEFICIT

Revenue Deficit= Revenue expenditure-Revenue Receipts

RD = RE – RR, when RE>RR

IMPLICATIONS:

i) Decline in Social Welfare : It may cause loss in social welfare as the government may have to cut its expenditure on several social welfare programs.

ii) Increase in liability : Government may have to borrow which will raise its liabilities and lower its credit worthiness.

IMPLICATIONS OF REVENUE DEFICIT

iii) Fall in Assets : Government may be compelled to get into Disinvestment which will reduce its assets. Also if PSE shares are sold to MNCs then economic control of foreigners may increase in the domestic economy.

iv) Fiscal Indiscipline : Since Revenue expenditures and receipts are related largely to recurring expenses of the government on administration, high revenue deficit gives a warning to the government to maintain fiscal discipline either by cutting its expenditure or increase its revenue.

IMPORTANT TYPES OF BUDGET DEFICIT WITH REFERENCE TO GOVERNMENT OF INDIA

2. FISCAL DEFICIT

Total Expenditure – Total Receipts(OTHER THAN BORROWINGS)

OR

Budget Expenditure – Budget Receipts(OTHER THAN BORROWINGS)

FD = BE – BR(other than borrowings), when BE > BR(other than borrowings)

NOTE : Fiscal Deficit is often called GROSS FISCAL DEFICIT as it estimates the total borrowings by the government in the financial year from all the sources viz. RBI, Market Borrowings & R.O.W.

IMPLICATIONS :

i) Inflationary Spiral : Greater borrowings from RBI → Increase in money supply in the economy → Increase in prices → Inflationary spiral

ii) National Debt : High fiscal deficit means that a significant percentage of National Income is used to pay the past debts. This hinders GDP growth.

IMPLICATIONS OF FISCAL DEFICIT

iii) <u>Vicious circle of High Fiscal Deficit and Low GDP Growth</u> :

a) Greater the Fiscal Deficit→ lesser the funds available with the government to invest → lesser the output → lower the GDP.

b) Greater the Fiscal Deficit→ higher taxes imposed by government to raise revenue → reduces the disposable income with the people → lesser demand in the economy → lesser inducement to invest → lesser output → lower GDP.

c) Lower the GDP → lower the Revenue generated for the government → higher the Fiscal Deficit.

Thus High Fiscal Deficit & Low GDP growth are cause as well as effect of each other.

IMPLICATIONS OF FISCAL DEFICIT

iv) **Crowding Out Effect :** This is a situation when due to high fiscal deficit the borrowings of the government go up. The availability of funds for the private investors in the money market reduces. Accordingly, overall investment in the economy is reduced.

v) **Erosion of government credibility :** High fiscal deficit and consequently the mounting national debt lowers the credit rating of the government and the economy in the domestic as well as international money market. The investors start withdrawing their investment from the domestic economy. This causes reduction in GDP growth.

IMPORTANT TYPES OF BUDGET DEFICIT WITH REFERENCE TO GOVERNMENT OF INDIA

3. PRIMARY DEFICIT

Primary Deficit = Fiscal Deficit – Interest payment

While Fiscal Deficit shows borrowing requirement of the government inclusive of interest payments on past loans, Primary Deficit shows borrowing requirement of the government exclusive of interest payments .

NOTE : Primary Deficit indicates government borrowings on account of current year expenditure and current year receipts of the government i.e. borrowings when current year expenditure > current year receipts.

IMPLICATIONS :

Same as that of FISCAL DEFICIT . The only difference is that Primary Deficit does not carry the load of interest payments on account of past loans.

CONCEPT OF ZERO PRIMARY DEFICIT :

It means the government resorts to borrowing only to clear the backlog of interest payments. There are no borrowings because of the excess of current year expenditure over the current year revenue. Simply because, current year expenditure happens to be equal to current year revenue. It is a sign of fiscal discipline/responsibility on the part of the government.

CONCEPT OF BALANCED BUDGET

It happens when :

Government Receipts = Government Expenditure

MERITS:

a) No wasteful expenditure by the government.

b) Signals financial stability and fiscal discipline.

DEMERITS :

a) Does not offer any solution to the problem of unemployment mainly when it occurs due to lack of demand in the economy. Ex. Period of Great Depression in Europe & West during 1930s.

b) Not conducive to growth in less developed countries. Government has to give a kick start to these economies in the form of big push of investment. This often leads to Deficit Budget.

CONCEPT OF UNBALANCED BUDGET

It happens when :

Government Receipts ≠ Government Expenditures

This may be a situation of :

1. SURPLUS BUDGET :

Estimated Government Receipts > Estimated Government Expenditures

MERITS :

a) **Effective during the times when economy is facing Inflation due to excess aggregate demand.**

b) **Surplus budget reduces aggregate demand as there is rise in revenue collection by the government and there is fall in its expenditures.**

DEMERITS :

a) **Not desired when economy is facing Depression.**

b) **If Surplus Budget Policy is constantly pursued by the government it may reduce aggregate demand to such a low level that unemployment levels might increase.**

c) **Economy may be driven into a LOW LEVEL EQUILIBRIUM TRAP.**

CONCEPT OF UNBALANCED BUDGET

2. DEFICIT BUDGET :

Estimated Government Receipts < Estimated Government Expenditures

MERITS :

a) Very effective to correct the situation of Depression in the economy when the level of investment is extremely low in the economy due to very less aggregate demand.

b) Deficit budget would mean that the government will borrow and thus more money supply in the economy.

c) More the money supply, more will be consumption and investment. This will increase aggregate demand.

DEMERITS :

a) Not desired during periods of Inflation when prices are high in the economy.

b) Deficit Budget will increase the money supply in the economy which will increase the aggregate demand and further increase the prices.

c) As prices increase, the people will demand more wages to be allocated to them in the Budget. As wages are increased, the prices go up again. This will cause WAGE-PRICE SPIRAL where wages try to catch the increased prices and prices try to catch the increased wages.

PRACTICE NUMERICALS

Q.1 Find Primary Deficit from the given data :

ITEMS	Rs.(in crores)
a) Revenue deficit	8,800
b) Fiscal deficit	11,600
c) Interest payments	1,600

Q.2 Calculate Revenue deficit, Fiscal deficit, Primary deficit & Budget deficit:

ITEMS	Rs.(in crores)
a) Revenue Expenditure	22,250
b) Capital expenditure	28,000
c) Revenue receipt	17,750
d) Capital receipts(other than borrowing)	20,000
e) Interest payments	5,000
f) Borrowings	12,500

PRACTICE NUMERICALS

Q.3 Revenue deficit is estimated to be Rs.20,000 crores. Borrowing is estimated to be Rs.15,000 crores. If expenditure on interest payment is estimated to be 50% of the Revenue deficit, find Fiscal deficit and Primary deficit.

ANSWERS

Q1. PD= FD—Interest payment = Rs. 10,000 crores.

Q2. RD= RE– RR = Rs.4,500 crores.

FD= (RE+CE)– (RR+CR…other than borrowing) = Rs.12,500 crores.
(NOTE: FD is also equal to BORROWINGS)

PD=FD—Interest payment = Rs.7,500 crores.

Q3. FD=Borrowings= Rs.15,000 crores.

Interest payment = 50% of RD = 50% of 20,000 = Rs.10,000 crores.

PD= FD—Interest payment= Rs.5,000 crores.

SUGGESTED VIDEOS

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SOURCE ACKNOWLEDGEMENT

1. Diksha Portal; Ministry of Education Govt. of India.
2. Introductory Macroeconomics : NCERT
3. Introductory Macroeconomics : Jain & Ohri

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UNIT 5 : BALANCE OF PAYMENTS

UNIT 5 : BALANCE OF PAYMENTS

MEANING OF BoP/BoP ACCOUNTS

- **Statement of accounts showing all monetary/economic transactions of a country with R.O.W during an accounting year.**
- **These transactions may be made by individuals, firms and the government of a country.**
- **Broadly, monetary transactions relate to :**

  a) Export & Import of Goods (Visible Trade)

  b) Export & Import of Services (Invisible Trade)

  c) International sale & purchase of Financial Assets (Stocks & Bonds)

  d) International sale & purchase of Real Assets (Plant & Machinery)

COMPONENTS OF BoP ACCOUNT

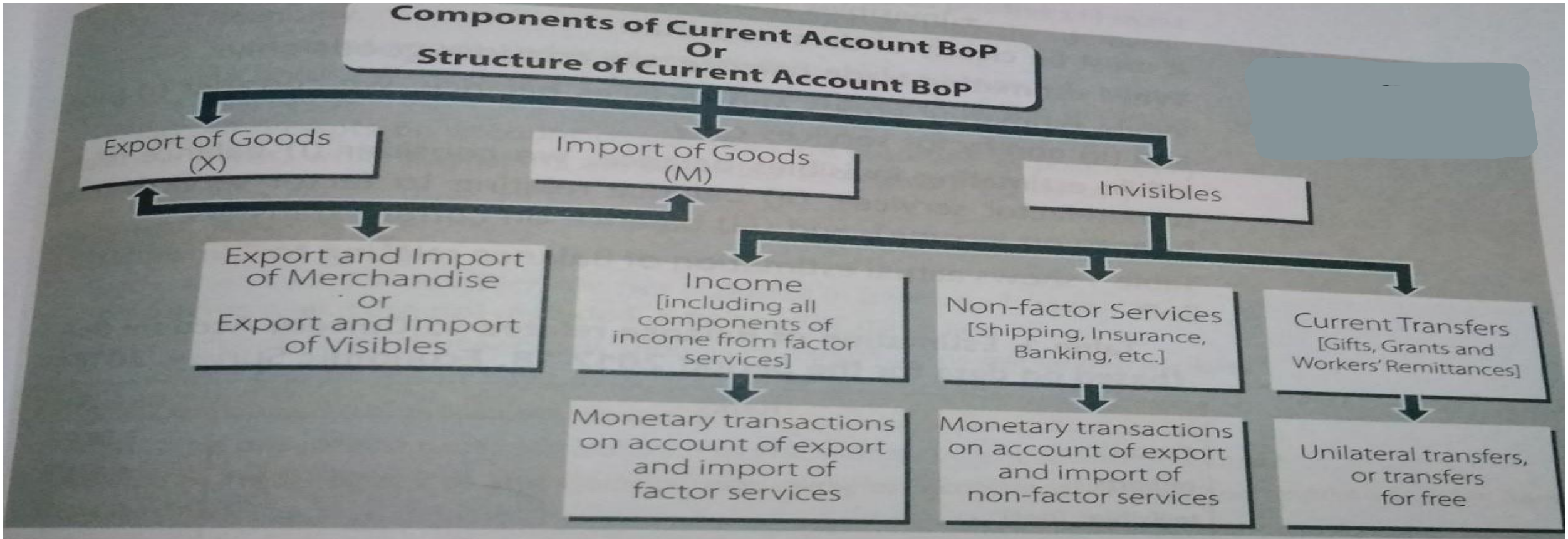
It includes :

a) Current Account

b) Capital Account

c) Official Reserve Account

STRUCTURE/COMPONENTS OF CURRENT ACCOUNT BoP



Note: *Current account records all payments to rest of the world as debit (indicated by the '–' sign) and all receipts from rest of the world as credit (indicated by the '+' sign). Net receipts refer to the difference between receipts and payments.]*

ESTIMATION OF BALANCE RELATED TO CURRENT ACCOUNT

- **Estimated in terms of four parameters:**

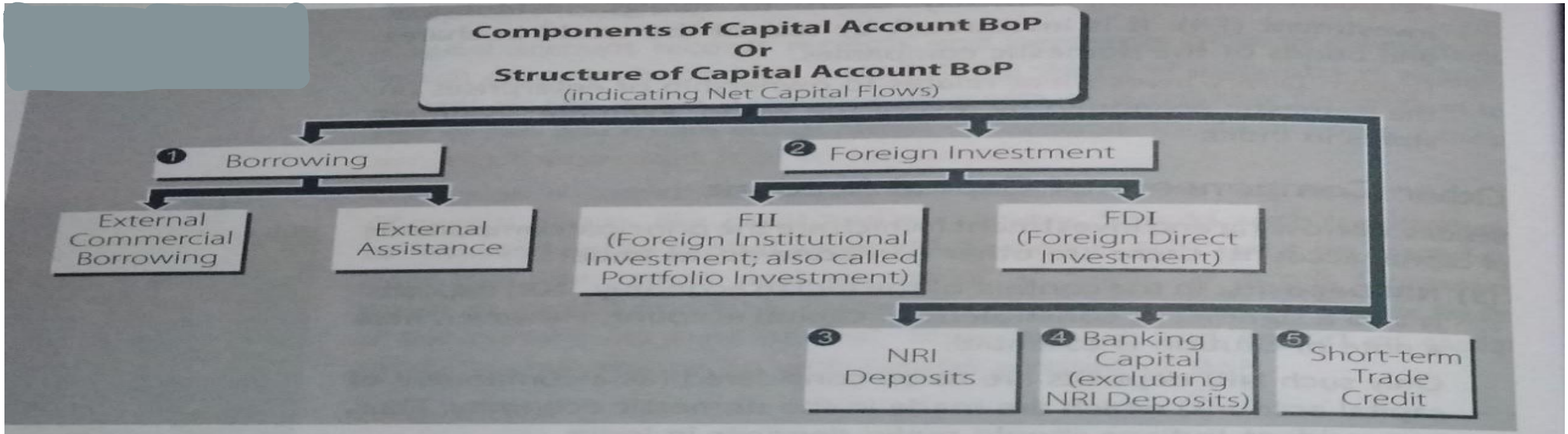
a) Trade/Merchandise Balance = Export of goods – Import of goods

b) Invisible Balance = Balance on factor services + Balance on non-factor services (i.e. Income) + Balance on Current Transfers

c) Goods & Services Balance= Trade balance(Export of goods – Import of goods) + Balance on account of non-factor services i.e. (Export of non-factor services- Import of non-factor services)

d) Current Account Balance = Trade Balance + Invisible Balance

STRUCTURE/COMPONENTS OF CAPITAL ACCOUNT BoP



[**Note:** (i) Similar to current account, capital account records all payments to rest of the world as debit, indicated by the '–' sign and all receipts from rest of the world as credit, indicated by the '+' sign.

(ii) Often, flows in the capital account are shown as 'Net Capital Flows'. Net flows reflect the balance on account of capital account transactions, which may be positive or negative. Positive balance indicates that the inward flow of foreign exchange is greater than the outward flow, while the negative balance indicates just the opposite.]

STRUCTURE/COMPONENTS OF CAPITAL ACCOUNT BoP

EXTERNAL COMMERCIAL BORROWING	EXTERNAL ASSISTANCE
Available at market rate of interest in the international money market.	Available at concessional rate of interest in the international money
FOREIGN INSTITUTIONAL INVETMENT/ PORTFOLIO INVESTMENT	**FOREIGN DIRECT INVESTMENT**
Investment by R.O.W in shares and bonds of domestic companies. Ownership rights are with the domestic	Ownership of enterprises in the domestic economy by R.O.W

- **NRI DEPOSITS**
- Only those NRI deposits are taken in Capital account which are made in the domestic economy.
- Money sent by NRIs to their families in India are treated as "Current transfers" and hence are recorded in Current account BoP.

BANKING CAPITAL (EXCLUDING NRI DEPOSITS)

- It refers to "foreign assets" held by commercial banks.
- When commercial banks convert their foreign assets into liquidity, there is an increase in the inflow of foreign currency into the domestic economy.

SHORT TERM TRADE CREDIT

- It arises on account of purchases in the international money market without making immediate payments.
- When this short term debt is repaid to R.O.W it causes outflow of forex and hence is recorded in Capital account with a negative sign. When R.O.W repays to us, it is recorded with a positive sign.

ESTIMATION OF BALANCE RELATED TO CAPITAL ACCOUNT

- **It is estimated as the Net of Positive and Negative values.**
- **The inflows are the Positive values .**
- **The Outflows are the Negative values.**
- **The difference between these two show the balance related to Capital Account BoP transactions.**

OVERALL BALANCE

- **In the Indian BoP Accounting System, overall balance is estimated as the sum total of :**

a) **Current Account Balance**

b) **Capital Account Balance**

c) **Errors & Omissions(accounting for statistical discrepancies)**

Thus ,

Overall Balance = Current Account Balance + Capital Account Balance + Errors & Omissions.

OFFICIAL RESERVES ACCOUNT
(indicating reserves of forex with RBI)

- **The Overall Balance is finally reflected in the Official Reserve Account of RBI.**
- **Since RBI is the Custodian of Foreign Exchange Reserves, all forex transactions in the country are routed through the RBI.**
- **If Overall Balance is Positive, it means Official Reserves will increase.**
- **If Overall Balance is Negative, it causes decrease in Official Reserves of forex.**

IMPORTANT OBSERVATION REGARDING OFFICIAL RESERVE ACCOUNT

- **Sometimes Official Reserves Account is shown as a part of the Capital Account BoP rather than a separate account.**

- **This is done when a balance is to be brought in the Overall BoP Account.**

- **When Official Reserve Account is shown as a part of Capital Account, BoP will ALWAYS BALANCE . BoP shows a PERFECT BALANCE and BoP accounts is EQUAL TO ZERO in such a case.**

IMPORTANT OBSERVATION REGARDING OFFICIAL RESERVE ACCOUNT

- **Official Reserve Account shows changes in the Official Reserves.**
- **Increase in Official Reserves is indicated by a (-) sign while the decrease in Official Reserves is indicated by a (+) sign.**

For example, if at present India has foreign exchange reserves of 400 dollars. Now due to balance of payment deficit of 2 dollars, it has used 2 dollars from foreign exchange reserves So reserves decrease to 398 dollars. Hence reserve change = 400 - 398 = +2 (which means reserves have decreased by 2 dollars).

Similarly, if 2 dollars of BoP surplus occurs then reserves increase to 402.

So reserve change=400 - 402 = - 2(which means reserves have increased by 2 dollars)

EQUILIBRIUM & DISEQUILIBRIUM IN BoP

- **BoP equilibrium is a state when inward flow of forex is exactly equal to outward flow of forex and there is no change in the Official Reserves with the central bank. In other words, BoP equilibrium is struck when:**

  Current Account Balance + Capital Account Balance + Errors & Omissions = ZERO and there is no change in Official Reserves.

- **BoP Disequilibrium is a state when :**

  Current Account Balance + Capital Account Balance + Errors & Omissions ≠ ZERO and there is change in Official Reserves.

EQUILIBRIUM & DISEQUILIBRIUM IN BoP

BoP disequilibrium may happen in two ways :

a) BoP Surplus→ Current Account Balance + Capital Account Balance + Errors & Omissions > ZERO

It points to net inward flow of foreign exchange leading to an increase in Official Reserves.

b) BoP Deficit → Current Account Balance + Capital Account Balance + Errors & Omissions < ZERO

It points to net outward flow of foreign exchange leading to an decrease in Official Reserves.

ITEMS OF BOP TRANSACTIONS

AUTONOMOUS ITEMS

1. Such BoP transactions which are undertaken for considerations of Profit.
2. The transactions in these items are the cause of BoP disequilibrium(surplus/deficit).
3. May involve movement of goods(consumer goods/capital goods) across the borders .
4. Autonomous items are classified as **"Above the Line Items**

ACCOMODATING ITEMS

1. Such BoP transactions are free from the considerations of Profit.
2. These transactions are meant to correct BoP imbalance.
3. Accommodating items do not involve the movement of goods across the borders. These items only involve the movement of Official Reserves with the RBI.
4. Accommodating items are classified as **"Below the Line Items".**

SIGNIFICANCE OF BOP ACCOUNTS/DATA

- **Reveals Financial Status of Domestic Economy in relation to the R.O.W. The more the Borrowings more is our dependence on R.O.W.**
- **Offers information on NFIA which is an important component of NI.**
- **BoP accounts show the Net Exports(X-M) of a country.**
- **BoP accounts reflect the market potential in the domestic economy. If foreign investments are more it is an indicator of high market potential.**
- **BoP performance impacts its Monetary & Fiscal policies. Larger or lesser inflows of forex & foreign investment has an effect on the monetary and taxation measures taken by the government.**

SOME VITAL DIFFERENCES

Balance of Payments and Balance of Trade

Balance of Payments	Balance of Trade
(i) Balance of payments is a summary statement of all economic transactions of a country with rest of world.	(i) Balance of trade is the difference between visible exports (X) and visible imports (M).
(ii) It records transactions related to goods as well as services.	(ii) It records transactions related to goods only
(iii) It records both current account as well as capital account transactions.	(iii) It does not record capital account transactions.
(iv) BoP always balances, provided movement of RBI reserves (official reserves) is reflected in it.	(iv) It is either positive (X > M) or negative (X < M). It balances only when X = M.

SOME VITAL DIFFERENCES

Current Account BoP and Capital Account BoP

Current Account BoP	Capital Account BoP
(1) Concept Current account records receipts and payments of foreign exchange on account of such transactions which do not impact asset-liability status of a country in relation to rest of the world. Thus, current account transactions do not give rise to future claims.	Capital account records receipts and payments of foreign exchange on account of such transactions which impact asset-liability status of a country in relation to rest of the world. Thus, capital account transactions give rise to future claims.
(2) Composition Current account transactions include: (i) Export and import of goods (called visible trade), (ii) Export and import of services (called invisible trade), (iii) Current transfers.	Capital account transactions include: (i) Borrowing,] Principal components (ii) Foreign Investment,] (iii) NRI Deposits,] (iv) Banking Capital,] Other components (v) Short-term Debt.]
(3) Significance (i) Current account transactions reveal X – M, an important component of AD in the domestic economy. (ii) Current account transactions reveal net factor income from abroad, an important component of national income. (iii) Because of their direct impact on AD, current account transactions impact the level of output and employment in the domestic economy.	(i) Capital account transactions reveal borrowings from rest of the world. It is a reflection of backwardness of the domestic economy. (ii) Capital account transactions show foreign investment in the domestic economy. While it reveals market potential of the domestic economy, it also reveals dependence on rest of the world for our GDP growth. (iii) Capital account transactions do not cause any direct impact on the level of output and employment in the economy. These transactions just reveal asset-liability status of the economy in relation to rest of the world.

SOME VITAL DIFFERENCES

Balance of Trade and Current Account Balance of Payments

Balance of Trade	Current Account Balance of Payments
(i) Balance of trade is that account which records imports and exports of goods only.	(i) Current account balance of payments is that account which records (a) import and export of goods, (b) import and export of services, and (c) current transfers.
(ii) It is the difference between visible exports and visible imports.	(ii) It is the sum total of trade balance and invisibles balance. Invisibles balance includes (a) balance on non-factor services, (b) balance on income arising out of factor services, and (c) balance on transfers.
(iii) It involves international transactions relating to physical goods which can be seen crossing the borders.	(iii) It involves international transactions relating to physical goods (which can be seen crossing the borders) as well as transactions relating to services which cannot be seen crossing the borders.

FOREIGN EXCHANGE RATE

- **Foreign exchange refers to foreign currency. The currencies of all the foreign countries which are with RBI at a point of time refers to the "stock of foreign exchange" with a country.**
- **The standard practice is to measure the entire stock of foreign currencies in terms of US dollars, by converting the value of all currencies into US dollars.**
- **Foreign Exchange Rate is the rate at which domestic currency can be exchanged for a foreign currency. It expresses the ratio of exchange between the currencies of two countries. It is also called "external value of domestic currency" For e.g. if ₹ 50 are required to buy 1 dollar then the exchange rate will be :**

$1 : ₹ 50

CLASSIFICATION OF EXCHANGE RATE

FLEXIBLE/FREE/FLOATING EXCHANGE RATE:

That rate which is determined by the free play of market forces of demand and supply in the foreign exchange market. The exchange rate at which demand for foreign currency is equal to its supply is called **"Par Rate/ Equilibrium Rate of Exchange"**

 # Demand for Foreign Exchange : Other things remaining constant, demand for forex is inversely related to price of forex (i.e. rate of forex). It means that the higher the price of foreign currency, lower will be its demand and vice-versa.

 # Supply of foreign exchange : Other things remaining constant, supply of forex is directly related to price of forex (i.e. rate of forex). It means that higher the price of foreign currency, higher will be its supply and vice-versa.

CONCEPT OF APPRECIATION OF DOMESTIC CURRENCY

- **This is a situation when domestic currency(₹) gains its value in relation to a foreign currency($).**
- **In simple terms this would mean that less rupees are needed to buy a dollar. Dollar becomes cheap.**
- **For e.g. If Yesteday, $1 = ₹ 50 i.e 50 rupees were required to buy a dollar.**

If Today, $1 = ₹ 40 i.e 40 rupees are required to buy a dollar.

Then it means that since less rupees are now required to buy goods worth one dollar, Rupee has become stronger and is showing an APPRECIATION.

CONCEPT OF APPRECIATION OF DOMESTIC CURRENCY

- **CAUSES OF APPRECIATION OF DOMESTIC CURRENCY (Rupee) :**

 # when there is an increase in the supply of Dollars it makes dollar cheap and Rupee strong

OR

 # when there is a fall in the demand for dollars it makes dollar cheap and Rupee strong.

- **EFFECTS OF APPRECIATION OF DOMESTIC CURRENCY (Rupee) :**

 # Since less rupees are required to buy a dollar, Imports are likely to increase.

 # Conversely, more dollars are required to buy a Rupee and hence demand for Indian goods will fall and Exports are likely to fall.

CONCEPT OF DEPRECIATION OF DOMESTIC CURRENCY

- **This is a situation when domestic currency(₹) loses its value in relation to a foreign currency($).**
- **In simple terms this would mean that more rupees are needed to buy a dollar. Dollar becomes costly.**
- **For e.g. If Yesterday, $1 : ₹ 50 i.e 50 rupees were required to buy a dollar.**

  If Today, $1 : ₹ 60 i.e 60 rupees are required to buy a dollar.

  Then it means that since more rupees are now required to buy goods worth one dollar, Rupee has become weaker and is showing a DEPRECIATION.

CONCEPT OF DEPRECIATION OF DOMESTIC CURRENCY

CAUSES OF DEPRECIATION OF DOMESTIC CURRENCY (Rupee) :

 # when there is an decrease in the supply of Dollars it makes dollar costly and Rupee weak.

OR

 # when there is a rise in the demand for dollars it makes dollar strong and Rupee weak.

EFFECTS OF DEPRECIATION OF DOMESTIC CURRENCY (Rupee) :

 # Since more rupees are required to buy a dollar, Imports are likely to decrease.

 # Conversely, less dollars are required to buy a Rupee or one dollar can purchase more goods & hence, demand for Indian goods will rise in U.S.A and Exports are likely to rise.

CLASSIFICATION OF EXCHANGE RATE

FIXED EXCHANGE RATE:

When the government sets & maintains the forex rate at level higher or lower than the equilibrium exchange rate as determined by the market forces of demand & supply, it is called as Fixed exchange rate.

If the value of domestic currency (₹) is deliberately lowered i.e. set at a price higher than the equilibrium price, by the government, it is known as DEVALUATION.

If the value of domestic currency (₹) is deliberately raised i.e. set at a price lower than the equilibrium price, by the government, it is known as REVALUATION.

NOTE: Market forces do not have any role to play either in Revaluation or Devaluation.

REASONS OF DEVALUATION

- **Countries, often less developed countries, Devalue their currency to make it cheaper in relation to foreign currency.**

  For e.g. if market equilibrium is at $1 : ₹ 50 & government goes in for

  DEVALUATION of Rupee, then it can set it at $1 : ₹ 60

- **This Planned fall in the value of domestic currency is expected to raise the demand for country's goods & services in R.O.W thereby raising its Exports.**

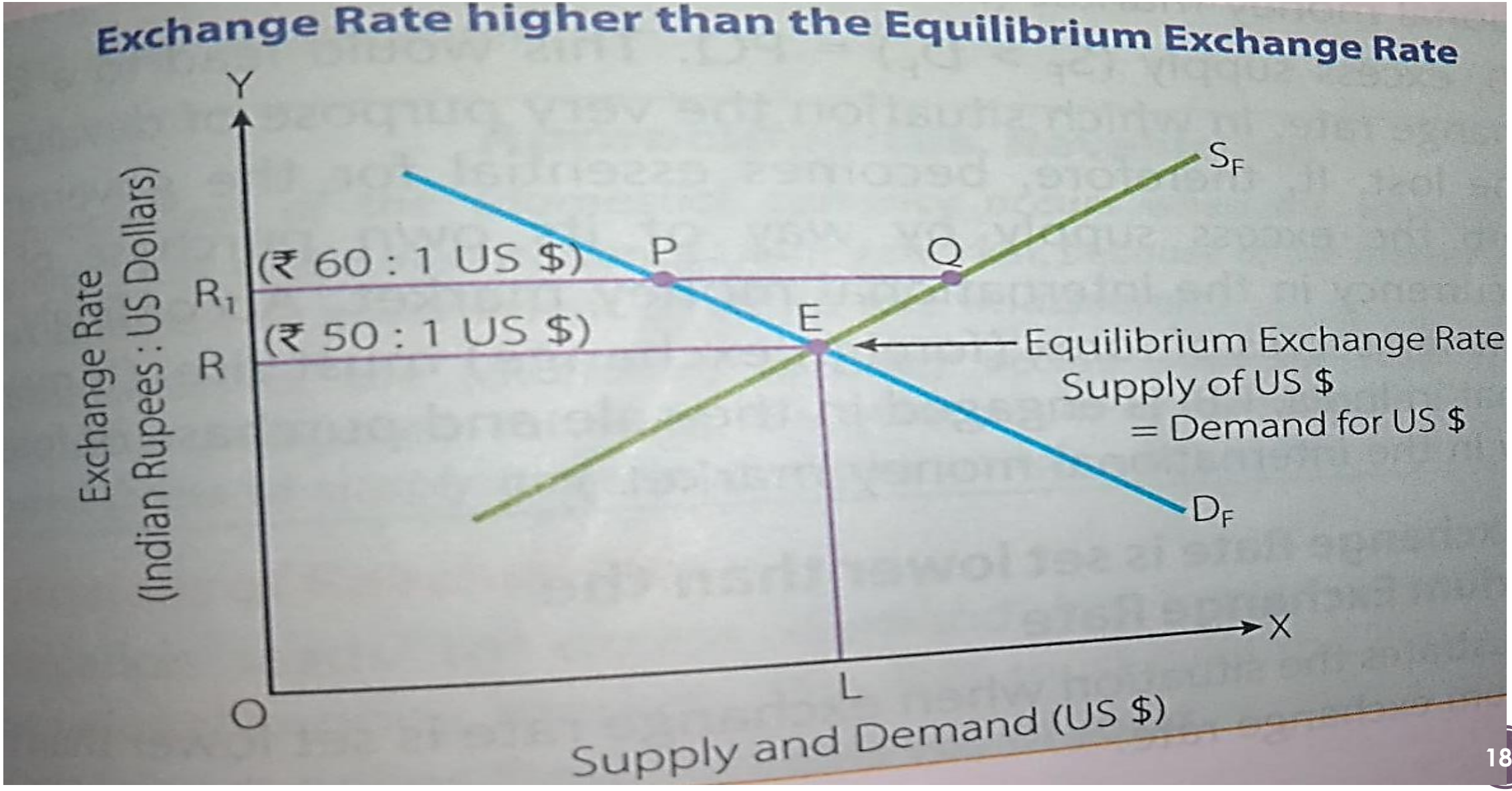
- **As Exports rise, due to Devaluation, it is expected to increase the supply of foreign currency into the domestic economy. This helps in paying for the Imports made from R.O.W.**

- **A fall in value of domestic currency, due to Devaluation, is expected to attract Private foreign Investment as well. Because for every dollar, the foreign investors are going to get goods worth more Rupees. More the investment, more is the GDP growth in the domestic economy**

IMPLICATIONS OF DEVALUATION (Rupee)

- **Devaluation leads to excess supply of foreign currency ($) in the international money market.**
- **If supply of $ is in excess in comparison to it's demand, then the price of dollar will fall. In this situation, the very purpose of Devaluation will be lost for us.**
- **Hence it becomes essential for our government to purchase $ in the international money market.**
- **Accordingly, the government reserves of forex must rise. We already know that in India, RBI is engaged in the sale & purchase of foreign currency,**

GRAPHICAL PRESENTATION OF DEVALUATION



REASONS OF REVALUATION

- **Countries Revalue their currency to make it costlier in relation to foreign currency.**

  For e.g. if market equilibrium is at $1 : ₹ 50 & government goes in for REVALUATION of Rupee, then it can set it at

  $1 : ₹ 40.

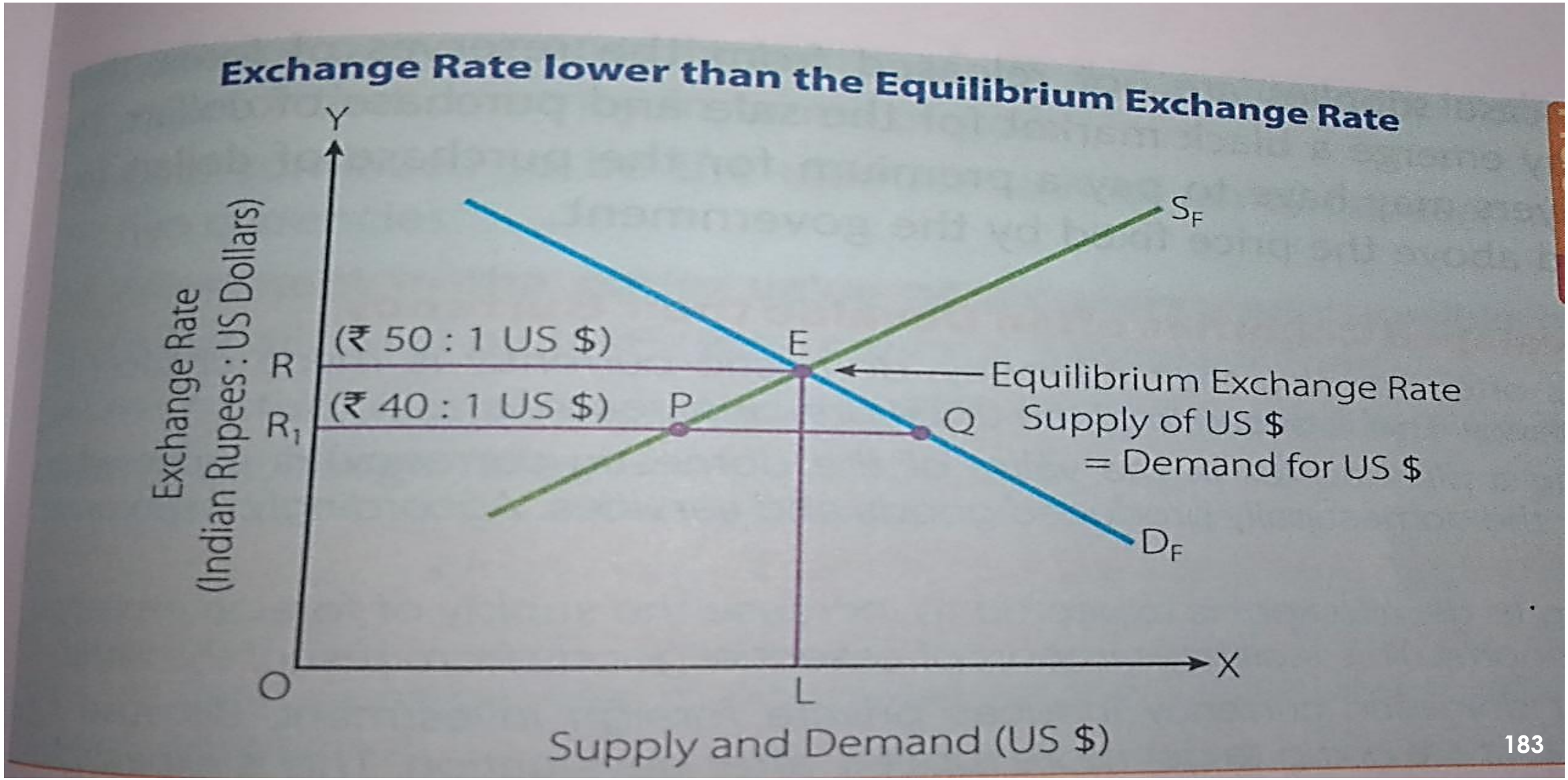
- **One of the common causes of Revaluation is the change in interest rates of various countries. In order to maintain its Profitability & economic competitiveness, a country may resort to revaluation.**

- **Countries can also Revalue their currency for Speculative purposes. For e.g. prior to the 2016 BREXIT by U.K, a lot of countries Revalued their currencies to remain profitable.**

IMPLICATIONS OF REVALUATION (Rupee)

- **Revaluation leads to excess demand of foreign currency ($) in the international money market.**
- **The RBI must fulfil this excess demand by releasing supply of ($) from its forex reserves.**
- **In case this supply is not released, there may emerge a black market for the sale & purchase of dollars.**
- **The buyers may have to pay a price much higher than what is fixed by our government.**
- **NOTE: In fact, it was the issue of currency Devaluation & Revaluation which led to the establishment of IMF. It's main aim was to regulate the frequent deliberate settings by countries to gain an unfair competitive advantage over others in international trade.**

GRAPHICAL PRESENTATION OF REVALUATION



SOME VITAL DIFFERENCES

Appreciation vs. Revaluation

Appreciation of the (domestic) currency occurs when the value of the domestic currency rises in the international money market, because of the market forces of supply and demand. The government plays no role whatsoever.

Revaluation of the (domestic) currency occurs when the value of the domestic currency is deliberately raised by the government by lowering the exchange rate. The market forces of supply and demand play no role whatsoever.

Depreciation vs. Devaluation

Depreciation of the (domestic) currency occurs when the value of the domestic currency reduces in the international money market, because of the market forces of supply and demand. The government plays no role whatsoever.

Devaluation of the (domestic) currency occurs when the value of the domestic currency is deliberately reduced by the government by raising the exchange rate. The market forces of supply and demand play no role whatsoever.

GOLD STANDARD SYSTEM
(An old variant of Fixed Exchange System)

- **Existed in most countries prior to 1920s.**
- **Each country was to define value of its currency in terms of GOLD.**
- **Accordingly, gold value of each currency was taken and on that basis exchange rate between two currencies was determined.**
- **For e.g. if $1 = 4gm of Gold and 1₹ = 2gm of Gold then, $1 = ₹2**
- **This system was also known as MINT PAR VALUE OF EXCHANGE/MINT PARITY. Mint value of a currency implied gold value of that currency.**
- **The main problem with Gold Standard System was that it required large reserves of Gold. This raised the demand for Gold but it's supply was extremely scarce.**
- **Hence in 1944, a UN conference was held in Brettonwoods in U.S.A. This conference suggested some adjustments in the exchange rate determination, although under the Fixed Exchange Rate System itself. Thus this new system came to be known as BRETTONWOODS SYSTEM OF EXCHANGE RATE /ADJUSTABLE PEG SYSTEM OF EXCHANGE RATE.**

BRETTONWOODS/ADJUSTABLE PEG SYSTEM OF EXCHANGE RATE

- **Different countries were related(pegged) to one currency i.e. US Dollar.**
- **US Dollar was given a Gold value at a fixed price.**
- **Value of a currency i.t.o US Dollar implied value of that currency i.t.o Gold.**
- **Gold continued to be the ultimate unit of comparison(parity) between any two currencies.**
- **Small and occasional Adjustments in the parity value of a currency were allowed but only with the permission of IMF.**
- **This system was also abolished in 1977 and replaced by a more dynamic Flexible System OF Exchange Rate.**

FIXED & FLEXIBLE EXCHANGE RATE---- KEY DIFFERENCES

Fixed Exchange Rate	Flexible Exchange Rate
(i) Fixed exchange rate is determined by the government.	(i) Flexible exchange rate is determined by the forces of supply and demand in the international money market.
(ii) Changes in the fixed rate of exchange are planned and introduced by the government, or the Central Bank of the country (RBI in India).	(ii) Changes in the flexible rate of exchange are linked to changes in the market forces of supply and demand.
(iii) As set and maintained by the government, the fixed rate of exchange leads to: (a) devaluation (when the value of the domestic currency is lowered by the government), or (b) revaluation (when the value of the domestic currency is raised by the government).	(iii) As determined by the forces of supply and demand, flexible rate of exchange leads to: (a) depreciation of the domestic currency (when the exchange rate rises), and (b) appreciation of the domestic currency (when the exchange rate falls).
(iv) To maintain the fixed rate of exchange at a particular level, the government needs to keep a large stock of foreign exchange.	(iv) Flexible exchange rate does not require any large stock of foreign exchange, as its level is set by the market forces of supply and demand.
(v) Degree of speculation is very low in the system of fixed exchange rate. It arises only when people expect some change in the government policy.	(v) Degree of speculation is very high in the system of flexible exchange rate. It is because of the uncertainty of market forces of supply and demand.

CONCEPT OF MANAGED FLOATING

- An occasional tool employed by central bank of a country to restore the value of domestic currency in relation to other currencies, within desired limits, even when exchange rate is determined by the market forces of demand and supply. Thus it is a mixture of both Fixed as well as Flexible exchange rate systems.
- The tool is used by the RBI through sale and purchase of foreign currency so that exchange rate does not slip out of desired limits.
- For e.g. when exchange rate of dollar needs to be reduced, the RBI releases the supply of dollars in the forex market. Ceteris Paribus, when the supply of dollar increases it's price will fall. As dollar depreciates, the Rupee will become stronger and appreciate in it's value.

CONCEPT OF MANAGED FLOATING

- **On the other hand, when the exchange rate of dollar needs to be increased, the RBI increases it's demand for dollars in the foreign exchange market. Ceteris Paribus, when the demand for dollar increases it's price will go up. As dollar appreciates, the Rupee will become weaker and depreciate in it's value.**

- **Managed floating is also known as DIRTY FLOATING. This is because the interference of the governments through RBI artificially influences the free play of the forces of demand & supply. This means that exports and imports are not entirely determined by the free play of market forces in the global economy.**

COMPONENTS OF DEMAND FOR FOREIGN CURRENCY
OR
WHY IS FOREIGN EXCHANGE DEMANDED?

- **Repayment of International Loans**
- **Investment in R.O.W**
- **Making payment for Imports**
- **Direct purchases of goods & services Abroad (e.g. people going for studies, medical treatment, tourism etc.)**
- **Grants and Donations to be made to R.O.W**
- **Payment of factor incomes which are repatriated(sent) abroad. This is like factor income to abroad.**
- **Speculative trading (e.g. more foreign exchange is held when the exchange rate is low and vice-versa)**

COMPONENTS OF SUPPLY OF FOREIGN CURRENCY
OR
WHAT ARE THE SOURCES OF SUPPLY OF FOREIGN EXCHANGE ?

- **Exports of goods and services means inflow/supply/receipts of foreign exchange to that country.**
- **Investments from R.O.W including Foreign Institutional Investment(FII) & Foreign Direct Investment (FDI).**
- **Direct purchases by R.O.W (e.g. people from foreign countries who come to India for studies, medical treatment, tourism etc.)**
- **Loans from R.O.W**
- **Grants and Donations from R.O.W**
- **Income Receipts which are received from abroad. This is like factor income from abroad.**
- **Remittances by NRIs.**

FOREIGN EXCHANGE MARKET

It is a centre of trade for buying and selling of national currencies of different countries in the world.

FUNCTIONS OF FOREIGN EXCHANGE MARKET

TRANSFER FUNCTION	CREDIT FUNCTION	HEDGING FUNCTION
Transfer of purchasing power in terms of foreign exchange across different countries of the world.	Provision of credit in terms of foreign currency for export and import of goods & services across different countries of the world.	Protection against risk related to variations in foreign exchange. Exchange rate is locked for future supplies of foreign currency.

OPERATION OF FOREIGN EXCHANGE MARKET

Forex market either operates as SPOT MARKET or as FORWARD MARKET

SPOT/CURRENT MARKET	FORWARD MARKET
# It handles only spot/current transactions.	# It handles transactions meant for future delivery.
# It is of daily nature & does not trade in future deliveries.	# It deals with future deliveries & does not deal with spot transactions.
# Rate of exchange determined in this market is called SPOT/CURRENT Rate of Exchange. # It is that rate which prevails at the time when transactions are made.	# Rate of exchange determined in this market is called FORWARD/CONTRACTED Rate of Exchange. # It is that exchange rate at which future transactions are to be honoured. The transaction is signed today but is to be honoured at some future date
# It does not allow Hedging.	# It allows Hedging.

HEDGING means avoiding risk of an adverse change in exchange rate by signing foreign exchange transactions for future delivery.

SUGGESTED VIDEOS

- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3130871365566955521204
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131240908225331201182
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3131241003481333761136 9
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3130871350081699841317 8
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3130871347359580161215 3
- https://diksha.gov.in/play/collection/do_31310347543311155219 88?referrer=utm_source%3Dmobile%26utm_campaign%3Dshare_content&contentId=do_3130871338012098561309 3

SOURCE ACKNOWLEDGEMENT

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