

30/4/24 (After mid)

\*+ Group Project

## MACROECONOMICS

(Overall nation)

- Management (Government handles different issues)
- Techniques to solve different issues by Government policies
- Issues → Different technique → <sup>Government Policies</sup>
- Every nation has its own economy.  
(Upon Progress nation are categorized)
- Trade, Value of Currency, Debt, Inflation, Standard of living (in short)  
(Economic Terms).
- GDP (Gross Domestic Product).
- Standard of living simplest term

and we can measure economic growth.

## → Macroeconomics



### → Great Depression of

1930

(Derivation of Macroeconomics)

(Government Intervention  
started)

(Policy Making)

(Discovery of Economy)

→ 1970 Oil

: Started  
from  
philosopher

: Political  
Economy

: Started  
from  
West  
(Adam  
Smith)

: Feudal  
systems (Europe)

: (FOP) (Quantity  
theory of money)

: Merchantilist  
: Gold discovery  
(Columbus)  
(America)

: Smith  
(self-adjustment)

(Def) → Study of Aggregates



Whole Economy



Government Managing

Resources

: Marx  
(Marxism  
Capitalism)

: East  
(Religion  
Islam)

: (Conspicuous  
Display of  
wealth)

: (1930)  
(Great depression)

: Lord Keynes  
Implemented  
new terms.

Economic Development  
(Growth)



Measured by standard  
of living.

: Motive of  
Government  
(Facilitate people  
and economic  
growth)  
(Health, Education)

- Objectives → Issues → Policies (Tools)
- \* Government make policies but problem is implementation.
- \* Supply of labour (Every educated or skilled person) (Supply more and demand less) (Unemployment).
- \* Economic Development  
Economic ↓ Stability (Equilibrium).
- \* Labour, Good, Services, Corporate, Education, Health, Agriculture, Finance sectors / Markets etc....

## ○ Issues:

- 1) Inflation (General increase in price level) (Disequilibrium state)  
Deflation (Lowering down in price level) (Third world country)  
→ Objective Goal: Price stability

## 2) Unemployment:

The person who is physical fit and skilled and even not getting job. Disguise Employment (Not using skills).

- Some people are not capable of doing one work. (Government officers)
- Overemployment (Manager inefficient to recruit required employed)
- Willingly unemployed (Less responsibility on person).
- Brain Drain (People go abroad to earn more).
- Objective : ↑ Employment

### 3) Income Inequality:

Rich becoming richer  
and poor becoming poorer.

- Average Income
- Objective : Income Inequality
- Tax implementation (Government Income)

### 4) Poverty:

- Effect of unemployment
- One effect is cause of other.
  - Unable to get basic needs
  - Calories : Men (2000), Women (1800)  
approaches
  - Income approaches: Figure of Income
  - Objective : Increase in National Income
  - Crime (Cause of Unemployment and Poverty).

## ① Issues :

→ Trade Deficit , Health problem,  
Terrorism , Corruption.

## ② Countries:

Developed , Developing , Underdeveloped  
(Japan, China (India etc...)  
etc....)

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## 5) Overpopulation:

More population  
less opportunities.

## 6) Mismanagement:

Not focus on  
domestic products. Quality products  
are exported.

## \* BOP (Balance of Payment)

The import and export are  
incorporated in BOP.

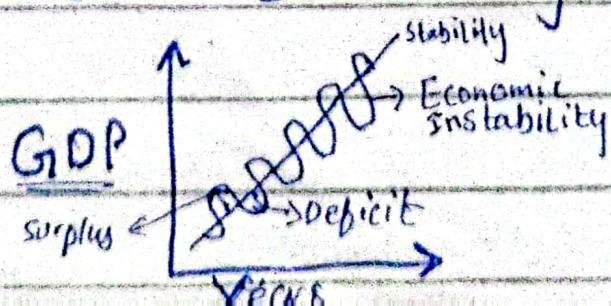
$X = M \rightarrow$  B.O.P. equilibrium  
 $\rightarrow$  Capital Intensive and Labour  
Intensive Countries.

BOP surplus  $\rightarrow X > M$  } Dis equilibrium  
BOP deficit  $\rightarrow M > X$  }

X=export  
M:import

$\rightarrow$  Solution is to achieve  
BOP equilibrium.

$\rightarrow$  Economic stability:



① All issues are incorporated with Economic instability.

## GOVERNMENT POLICIES

### Fiscal Policy

(Goods Market Sector)  
(Where goods production)  
(Service Sector)

### Government Expenditures

(Spending money for people)  
(Government do it for public)  
(School, Hospital, Road etc....)  
(Positive effect on economy)

### Taxes

(Government Revenue)  
(Government earns from tax)  
(Public pay taxes)  
(Negative effect on Economy)  
(Less demand on more taxed)  
(Burden on Economy)

### Monetary Policy

(Financial Sectors) ↗  
(Money) (Market)  
(Rules and regulation deals with the Government financial sector).

### Money Supply

(Production of Money)  
(Two Scenarios)  
(Basic cause of inflation is money supply)

### Interest

(Earnings on Loans)

✳ By imposing more taxes we can go over surplus and by decreasing taxes we can overcome deficit.

✳ Expansion (Less taxes)  
Contracted (More taxes)

<u>Expansion</u>	<u>Contracted</u>
$\rightarrow F.P$ (Fiscal Policy)	$\rightarrow F.P$
Contractionary	Expansionary
$G \downarrow T \uparrow$	$G \uparrow T \downarrow$
(G.E) (Government Expenditures)	(Raised) (Reduces)

- \* Statflation (Inflation and Unemployment)  
 (Inflation  $\uparrow$  Unemploy  $\downarrow$ , Inflation  $\downarrow$  Unemploy  $\uparrow$ )  
 (Firstly faced in 1970) (Oil crisis)  
 (2008 Global financial crisis).

<u>M.P</u> Contractionary	<u>M.P</u> Expansionary
: Central Bank makes it. (State Bank)	MS $\uparrow$ i $\downarrow$
: Following instructions of state banks.	
MS $\downarrow$ i $\uparrow$	

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- \* Economic development / 3  
 Economic Growth

: Commercial Bank  
 (MCB etc.)  
 : Central Bank  
 (State Bank)

- # The technology level for that time period remain same, when production of goods and services taken.

$\rightarrow$  **GDP**  
 (Gross Domestic Product)  
 (The total value of all the final goods and services)

Domestic production ↑ : Employment ↑,

## G.D.P.

### C Consumption

(Durable and non-durable)  
 (Petrol more consumption)  
 (Shortage occurs)  
 (So we import and inflation occurs)

(Consumption will be managed to increase economic growth).

(70% share in GDP)

( $\uparrow AD \rightarrow PT$   
 (aggregate))

### I Invest

(Worth of capital is investment)  
 (Profit earning motive)

(Huge investment purchase of land, Gold)

(Investment Business)

Production Employment

National Income  
 Overall Economy Development

$I \uparrow \rightarrow D \uparrow \rightarrow Emp \uparrow \rightarrow Wages \uparrow$

### Government Expenditures

(Spending on people)  
 (Employment F.O. Dev)

(Trade Sector)

(Net Exports)

( $\rightarrow$  Equilibrium)  
 ( $\rightarrow$  GDP↑)

( $\rightarrow$  GDP↓)

### Xn Exports

( $X_n = (X - M)$ )

(Trade Sector)

(Net Exports)

( $\rightarrow$  Equilibrium)  
 ( $\rightarrow$  GDP↑)

( $\rightarrow$  GDP↓)

(\*)

$$Y = C + I + G + X_n$$

(Overall GDP factors)

(Aggregate Supply)

(Aggregate Demand)

(\*)

$$Y = C + I$$

(Two sector economy) (NO Government Intervention)

(\*)

$$Y = C + I + G$$

(Three sector economy)

(Closed Economy)

(\*)

$$Y = C + I + G + X_n$$

(Four sector economy) (Open Economy)

(\*)

## National Income:

(Sum of all earning) / 4 F.O.P

Land, Labour, Capital, Organization

$$\Sigma = Rent \downarrow \quad Wages \downarrow \quad Interest \downarrow = NI$$

## RnD (Research and

3-D :  $\leq$  Development  
 $\geq$  Defense  
 $\rightarrow$  Debt

$$\textcircled{4} \quad \underline{\text{National Income}} = \frac{\text{Per capita Income}}{\text{Population}}$$

## \* Disposable Income:

\* Remittance (Foreign Earnings).

GNP : Gross National Product

= GDP + foreign earnings

→ NDP

(Net Domestic Product)

$$= \text{GDP} - \text{Depreciation}$$

( جی )

$\rightarrow NNP$

## (Net National Product)

$$= \text{GNP} - \text{Depreciation}$$

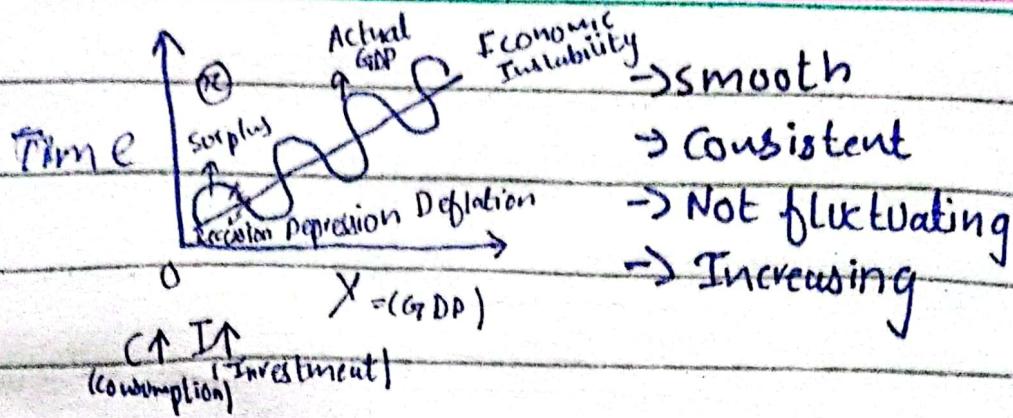
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\* Potential GDP (Maximum potential to achieve GDP)

\* GDP

$$X = C + I + G_1 + X_m$$

④ Maximum sustainable level any economy can achieve is called Potential GDP.



- GDP increased → Supply decreased → price increases
- cause and effect relation
- Cycles known as business cycles.
- Stagflation (Inflation + Unemployment)

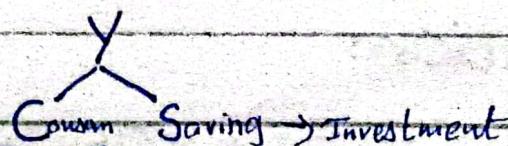
## ① Consumption:

It is function of Income.

$$C = f(Y)$$

Income

functional form  
(Dependant and independent Variable)



$$\Rightarrow C = C_0 + cY$$

$\downarrow \quad \downarrow$

Autonomous (Not dependant) Consumption  $\frac{\Delta C}{\Delta Y}$

$$Y = a + bY$$

$$\rightarrow S = -S_0 + sY$$

$\downarrow \quad \downarrow$

(Saving) Dissaving Borrow  $\frac{\Delta S}{\Delta Y} \rightarrow MPS$

$\downarrow \quad \downarrow$

$\frac{\Delta S}{\Delta X} \rightarrow MPC$  (Marginal Propensity to Save)

$$C = MPC$$

(Marginal Propensity to Consumption)

→ Autonomous Consumption are 252,  
MPC = 0.5 . Write down  
consumption formula:

$$C = 252 + 0.5Y$$

### ① Investment:

Objective is to earn profit.

→ Interest Taken:

$$i \uparrow \rightarrow I \downarrow \downarrow$$

: Interest  
rate is  
inverse.  
(Interest  
more)      (Income  
disturbs)

→ MEC:

Marginal Efficiency of Capital.

### ② Question:

$$C = 50 + 0.75X$$

$$I = 550$$

$$G = 350$$

$$X = 100$$

$$M = 50$$

Calculate level of Y?

$$Y = C + I + G + X_n$$

$$Y = 50 + 0.75Y + 550 + 350 + (X - M)$$

$$Y - 0.75Y = 50 + 550 + 350 + (50)$$

$$Y(1-0.75) = 1000$$

$$Y(0.25) = 1000$$

$$Y = 1000$$

0.25

$$Y = 4000$$

→ Disposable Income:

$$\begin{array}{l} Y_d = Y - T + T_p \\ \text{Income} \end{array} \quad \begin{array}{l} T = 150 \\ T_p = 60 \end{array}$$

$$Y_d = 4000 - 150 + 60$$

$$Y_d = 3790$$

$$C = 50 + 0.75(Y - T + T_p)$$

$$\begin{aligned} \rightarrow Y &= 50 + 0.75(Y - T + T_p) + 550 + 350 \\ &\quad + (100 - 50) \end{aligned}$$

$$Y = 1000 + 0.75(Y - 90)$$

$$Y = 1000 + 0.75Y - 67.5$$

$$Y - 0.75Y = 1000 - 67.5$$

$$0.25Y = 932.5$$

$$Y = \frac{932.5}{0.25}$$

$$Y = 3730$$

: putting value of  $Y_d$  instead of  $Y$ .

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## ① G.D.P Growth Rate:

GDP<sub>t</sub>

GDP<sub>t-1</sub>

$t$ : year  
 $t-1$ : past year

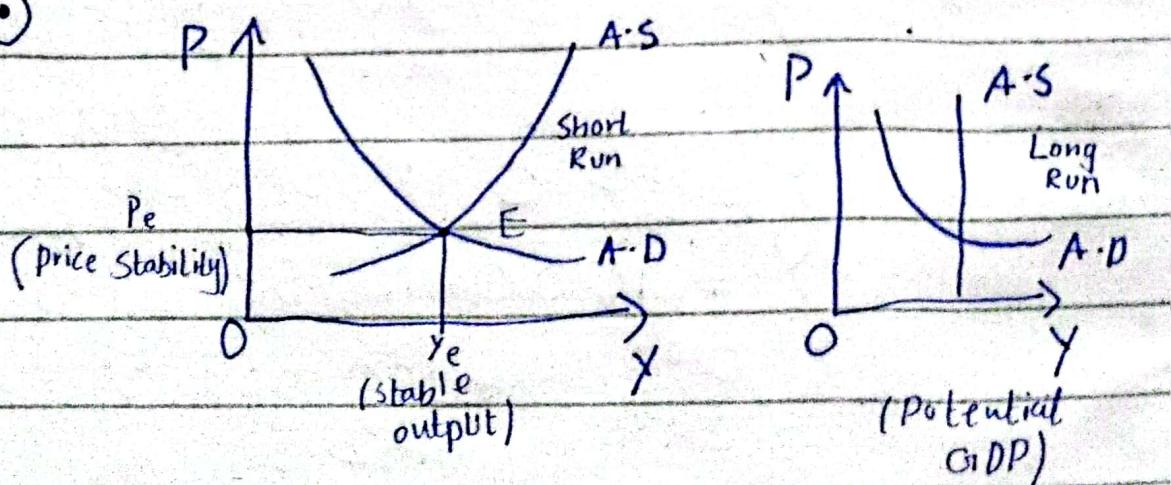
$$\text{GDP GR} = \frac{\text{GDP}_t - \text{GDP}_{t-1}}{\text{GDP}_{t-1}} \times 100 \quad \begin{matrix} \text{Inflation} \\ 4.8\% \end{matrix}$$

$\text{GDP}_t - \pi \rightarrow$  real GDP (<sup>to be</sup> <sub>adjusted</sub>)  
 $\rightarrow$  Nominal (Which we <sup>see</sup> <sub>actually</sub> getting)

: GDP = 4.1

② Money, Labour, Foreign Exchange, 4.4.-14.1. = 0  
 Goods and Service Market.

③



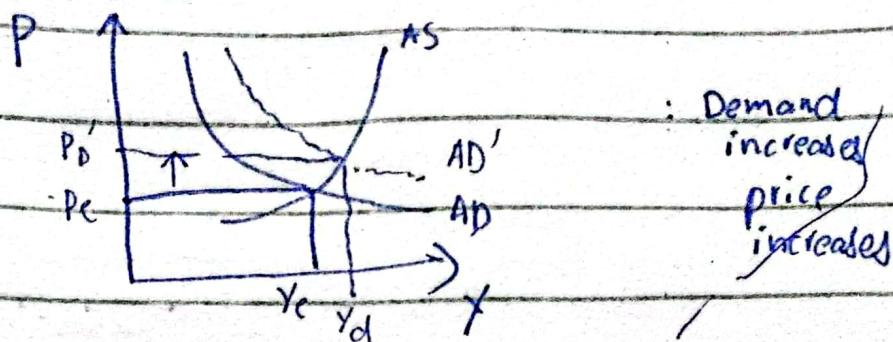
④ In Equilibrium disturbs Price and output stability.

: Causes, Consequences,  
Remedies, Govt. Policies  
(Project Part)

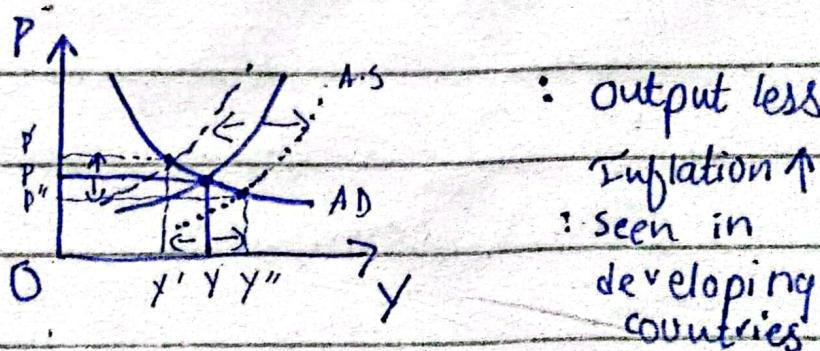
# ① Inflation:

$\pi \uparrow$  Price Level

## 1) Demand Pull Inflation:



## 2) Cost Push Inflation:



### → Causes

- ① Overpopulation
- ① Too much rely on Imports
- ① Political Instability
- ① Debt Services
- ① Low Domestic production
- ① ↑ Energy prices
- ① Mismanagement of Resources

### Consequences

- ① ↓ NI
- ① Poverty
- ① Low producing power
- ① Taxes
- ① Low GIDP

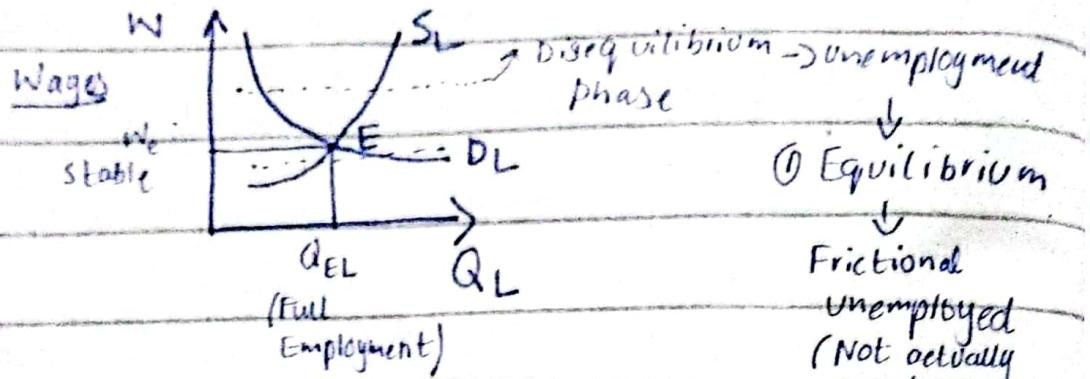
### Remedies

- ① Domestic production
- ① Proportion/progressive Government Expenditure projects
- ① Political stability

### Government Policies

- F.P contract
- M.P contract
- G↓ T↑
- MSJ i↑

## Ø LABOUR MARKET:



→ Disguise Employed (Not match or job below your skills)  
: Overemployment, underemployment

↓  
Frictional  
Unemployed  
(Not actually employed but in documents employed)  
(willingly quitting job)

→  $D_L = S_L$        $D_L > S_L \rightarrow \text{shortage}$

(Demand of Labour)

$D_L < S_L \rightarrow \text{surplus}$

( $D_L = S_L$ )  
cyclical (due to seasonal changes)  
seasonal (due to COVID, flood, disaster etc.)

→ 6.1. natural unemployment rate

→ Causes, consequences (social Crime, Brain drain), same

Remedies, Govt. Policies (FP Exp, G↑TJ, as before PIP Exp → Mgris)

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: Quiz till Tuesday

\* Problem → Issue Arises

\* To diagnose, highlights, solve the issues.

## Ø MONEY Market:

Deals with financial sectors. The institution where financially collaborate is

financial sector and money market.

(\*) Leasing (Installments + down payment)

(\*) Government work to check over institution.

(\*) Monetary Policies are made by central bank.

(\*) Central and commercial bank  
(state bank)  
(No public dealing)  
(supervise other commercial bank)

(HBL, MCB, UBL etc-)  
(supervised by central)

(\*) Transactions (Sale, purchase, funds etc.)

(\*) Money and wealth

(Medium of exchange)

(All other things which we have).

## O Evolution of Money:

### 1) Barter System:

(Exchange of goods to buy other goods) / (Double coincidence of want)

→ Traditions and commands

(No payment to labor) / (only food and shelter in King system)

→ Price in terms of goods sale.

→ Problems: Searching for specific people to exchange / Money Divisibility

→ Solution: Single commodity money (products)

## ① Commodity Money:

- Cattled → sugar, salt, pebbles  
(Divisibility) (Storage problems) (Destroy by water)
- Olive oil (Properly measured) (Storage issue)  
is there
- Jewellery, precious metals, ornaments  
(Gold, silver) (Copper)  
(Foreign currency for exchange)
- Coins (From Gold) (Add other metal cheap)  
(Spending) (Burning hole in the pocket) (Debasement of coins)  
to increase profit (Money flow more) (Devaluation)
- Paper Money (No value of paper) (Intrinsic / Illusion money)
- First Paper Money (Dollars) ( $\frac{1}{20}$  ounces gold)
- Goldsmith (First ever banking system) (Keeps gold)  
(Gives receipt to people of gold) (Notes started)
- Modern Money (Electronic Money)

: Money characteristics:

- Store of value
- Divisible
- Unit of Amount
- Easily carried
- High in demand
- Easily <sup>(π)</sup> acceptable

- ①  $M \uparrow \rightarrow$  More <sup>(π)</sup> spending of Good  $\rightarrow A \cdot D \uparrow$
- ② 1938 (Bankruptcy) (More Inflation)
- ③ Exchange of goods in Market.



# Money Market

**M·D<sup>(Demand)</sup>**  
 (Holding of money)  
 (Keeping your money  
 for spending)

**M·S<sup>(Supply)</sup>**  
 (Production of  
 money)

Banking System

## 1- Transaction Motive

(Using money  
 for some buying)

Commercial

Central

$$\therefore M \cdot D_t \propto Y$$

(More Income  
More spending)      (Income)      M·D<sub>t</sub>

## 2- Precautionary Motive:

(Health issues, wedding,  
Accident)

(For sake of transaction)  
and precaution

$$\therefore M \cdot D_p \propto Y$$

(Income)      M·D<sub>p</sub>

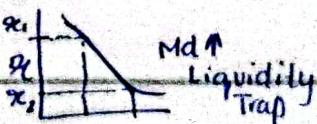
## 3- Speculation Motive:

(Want to get profit  
 from your  
money)

(Investment in business)

$$\therefore M \cdot D_s \frac{1}{r} \propto g_c$$

(Inverse)      (rate of  
interest)      M·D<sub>s</sub>



: Liquidity Trap (Easily convertible  
to cash)

: Non-Liquid (Car selling) (Not easily  
convertible  
to cash)

# ○ Money Supply

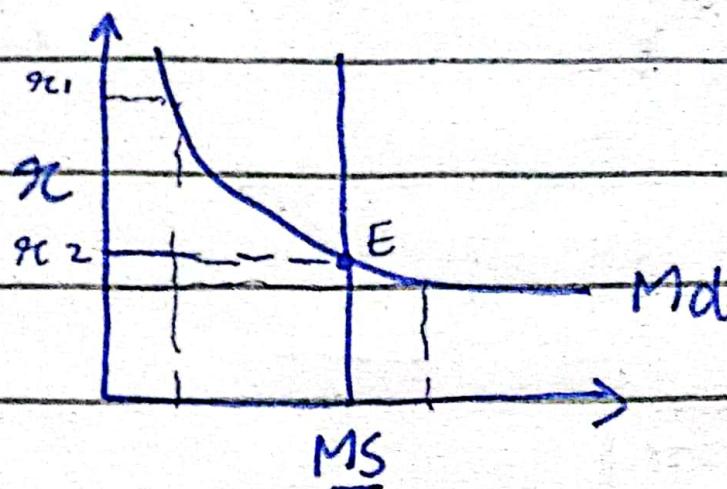
Monetary Assets

(cash, currency notes,  
debit, credit card)

(Liquid)

Non-Monetary Assets

(Savings, Fixed  
Profit)  
(Non-Liquid)



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## ① MONEY SUPPLY

M<sub>1</sub> < M<sub>2</sub> < M<sub>3</sub>  
Liquidity

↓  
Banking System

Commercial      Central

## ② Evolution of Banking System:

Goldsmith → Gold Bank

Exchange in Market ← Receipt of Gold

## I) 100% Reverse Banking system:

One Deposits, other Reserved

## 2) Fractional Reserve Banking System:

→ Some percentage reserves and send withdrawable.

→  $rc = 10\%$ . Interest on reserve

→ Balance Sheet:

Assets	Liabilities
Loans	Deposits
Profit	Time / Savings
Reserves	
Interest	
Investment	

(A) Bank - I	(B) Bank - II	(C) Bank - III
100,000	90,000	81,000
$rc = 10,000$	$rc = 9,000$	$rc = 8,100$
<u>90,000</u>	<u>81,000</u>	<u>7,300</u>

G.P  
(Geometric)

$$100,000 + 100,000 + 100,000^2 + 100,000^3 \dots$$

Credit Creation Banking = Total Reserves  
\* Reserves Ratio

\* Great Depression (1913) (Bankruptcy)

\* Reserve Ratio (Amount to be withdrawable)

\* Central Bank First (FRB) (Federal Reserve Bank)

\* Central Bank (But not for public)  
Headquarters ↓  
Branched

\* M.S  
Issuance of new Money ↓  
Commercial Bank

: Central Bank sets the reserved ratio (which allow other banks to give loans)  
(Non-Profit organization)

\* Bank Open Market:

Sale / Purchase <sup>(MSB)</sup> Government Securities

(Tools) →  $i$ ,  $gc$ ,  $MS$ , Control credit

Interrelated  $i \uparrow \rightarrow$  Money contractions

$gc$  : reserved ratio

$gc \uparrow \rightarrow$  Money expansion

: Monetary Policy (Central Bank)  
(Economical stability)

\* : Central Bank tools

## Central Banking

→ Public Interest

## Commercial Banking

→ Own Banking

→ Economic Stability Achievement

→ Profit earning

→ Non-Public Dealing

→ Public Dealings

→ Exchange rate, Price/Interest stability regulation

→ Customer Services

→ Monetary Affairs

→ Deposits, Time Deposits + Facilitation

→ Monopolistic

\* Money Market Important with respect to Finals.

: Long (Causes, Consequences, Remedies)

\* Final Paper Pattern:

→ Objectives, Graphs, Numerical,  
Long questions, Difference  
(Choice in Paper)

Contractionary  
Monetary Policy

Reserve Rate ↑  
Interest Rate ↑  
Control Rate ↓  
Open Market Operation  
(Sale)

Expansionary  
Monetary Policy

Reserve Rate ↓  
Interest Rate ↓  
Control Rate ↑  
Open Market Operation  
(Purchase)

\* Central Bank (control the affairs of other commercial bank)

\* Names of Central Bank (PAKISTAN, India, England, STATE BANK, BANGKOK, INDIA, ENGLAND, INDIA)

\* Exchange Market.

\* Quiz (Start Introductory + GDP Topics)  
on Thursday (Before Issues).

\* Exchange market.

\* Quiz (Start Introductory + GDP Topics)  
on Thursday (Before Issues).

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\* Foreign Trade:

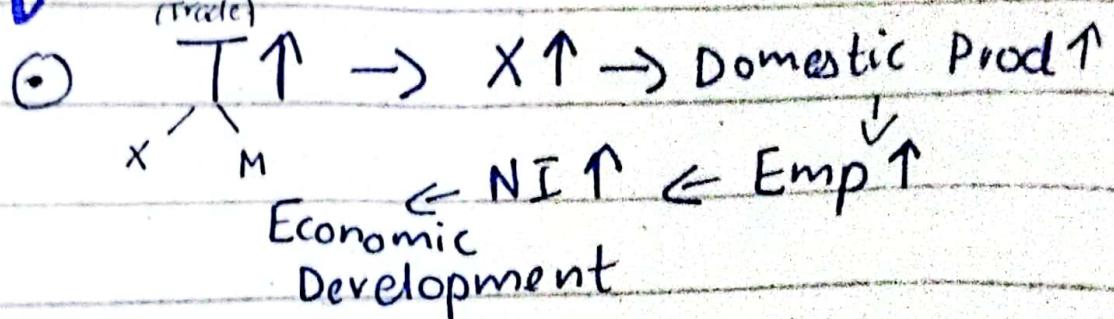
Openness of Economy



4 Sectors Economy

$$Y = C + I + G + (X_n)$$

## ① Significance:



②  $M \uparrow \rightarrow \text{Domestic Prod} \downarrow \rightarrow \uparrow \text{Unemployment}$

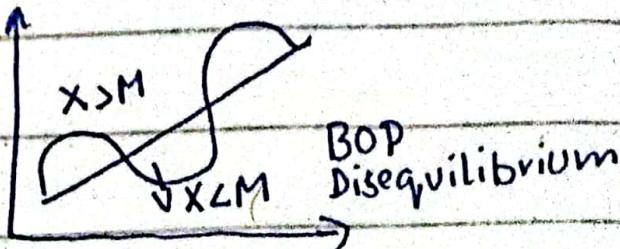
Economic Development  $\leftarrow \downarrow NI \leftarrow \downarrow \text{Inflation} \uparrow$

③  $X = M$

(Exports)      (Imports)

(BOP) (Balance of Payment)

④



Interconnected aspects of nation)

⑤ **Globalization** (Trade is part of it)  
(Foreign Direct Investment)

(i) Trade  $\leftarrow$  Imports  
                        Exports

(ii) Foreign Direct Investment

$\rightarrow$  **Effects of Globalization:**

(i) Following food, clothes, language

(ii) Culture changing

(iii) Copying others

(iv) Negatively influence

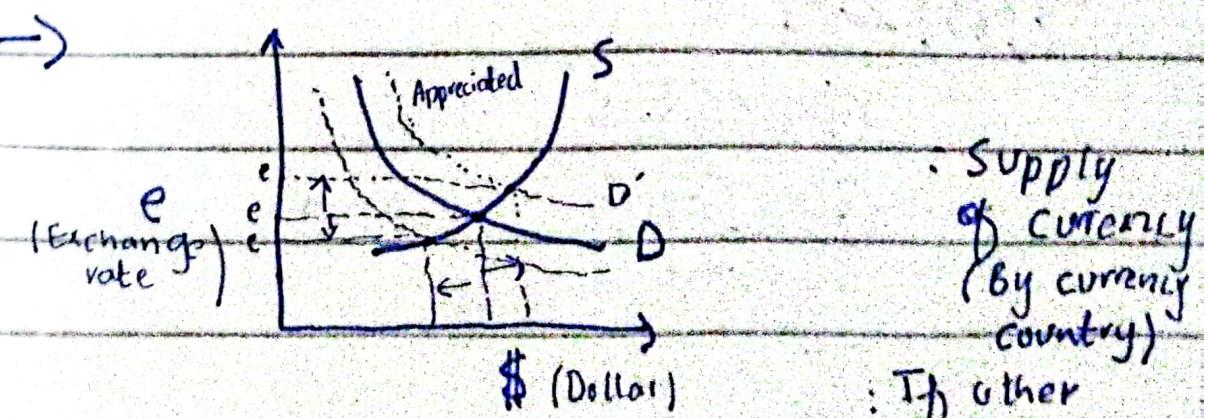
- ④ Complex → superiority (clothes)  
→ inferiority (language barrier)
  - ⑤ WTO (Free Trade Motive) (without Taxation)
  - ⑥ Tariff (Government Protest against taxation on exports and imports).
  - ⑦ Labor More (Intensive of Labor),  
Capital More (Capital Intensive).  
↓  
(our Capital Direct Foreign investment)  
(Labor export to other countries).  
 $\rightarrow Y = +$  (Increase in GDP),  $Y = -$  (Decrease in GDP)

# FOREIGN EXCHANGE MARKET:

→ Trade in game currency.

(Set by all nations) (Acceptance of money)

(Today American Dollars)



- ④ Price of currency of any counter decreases then depreciation.

\* ⑦ Along with investment, they also do dictatorship.

### \* Foreign Exchange Rate:

#### Types

(i) Fixed foreign exchange rate (Government set it)

(ii) Flexible foreign exchange rate (Automatically set by the market)  
(Exchange of trade dependant).

\* Q: What can be government policies against disequilibrium?

→ Fiscal policy, monetary policy