Chapter-8 MONEY MARKET

(8-10 marks)

Unit 1- The Concept of Money Demand

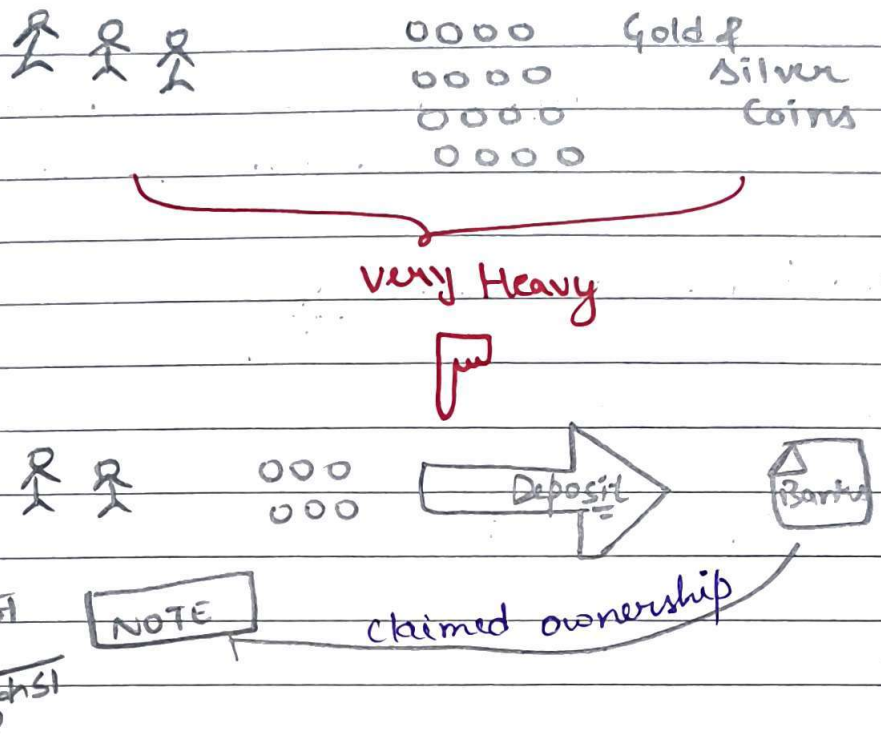
(1) Introduction

→ Money can be "anything" that can serve as:
- (i) Store of value → you can save it for future
- (ii) Unit of account → Common base for Prices.
- (iii) Medium of Exchange. → which can be used to buy & sell goods or services.

→ Money is something that holds its value over time, can be easily translated into prices, and is widely accepted. Many different things have been used as money over the years.

- Cowry shells
- Barley (cereal grain)
- pepper-corns
- Gold & Silver

→ FIAT MONEY



Eventually, the paper claim on the precious metals was delinked from the metal, when that link was broken, fiat money was Broken.

fiat money is materially worthless, but has value simply because a nation collectively agrees to attach ascribe a value to it. (In short, money works because people believe that it will)

(A) → Money can be defined for policy purposes as the set of liquid financial assets, the variation in stock of which could impact on aggregate Economic activity. As Statistical

Concept, money could include certain liquid liabilities of a particular set of financial intermediaries or other issuers.

- RBI Manual on financial & Banking statistics, 2007.

→ **Functions of Money**

(i) Generally acceptable

(ii) Durable i.e, long lasting

(iii) Effortlessly recognisable.

(iv) difficult to Counterfeit — "duplicate नो बन पाइ"

(v) Relatively Scarce [but has Elasticity of Supply] — Supply zero नही होनी चाहिए

(vi) Portable

(vii) Possess Uniformity.

(viii) Divisible into "Smaller parts".

→ How is money measured?

In official statistics, the amt. of money in an Economy is generally measured through what is called **broad money**.

↓

Which Encompasses Everything that provides a store of value and liquidity.

International monetary fund = IMF

Broad money Consists :-

Narrow Money

C + D + OD

→ National Currencies (generally issued by Central govt.) [Current A/c]

→ Transferable deposits (which include demand deposits, cheques etc)

→ Other deposits (Such as Non transferable [F.D] Savings deposits, term deposits, repurchase agreements* etc)

↓

In which one party sells a Security & agrees to buy it back at fixed price

* Security other than Shares (like tradeable certificates of deposit, commercial papers etc)

② Demand for money.

→ If people desire to hold money, we say there is demand for money.

→ The demand for money is in nature of "DERIVED DEMAND", it is demanded for its purchasing power.

→ Demand for money is actually demand for liquidity and demand to store value.

→ Some important variables on which demand for money depends on are:-

- Higher the Income of Individual, Higher the Expenditure → {Higher Demand}
- Higher prices leads to higher demand for money.
- Higher the Int. rates, higher would be opportunity cost of holding money, therefore lower the demand for money.
- Innovations reduce the need for holding money. (online transfers, atm)

Int. rate ↑ Demand for money ↓ (Inverse)

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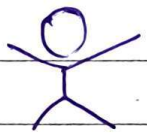
③ Theories of Demand for Money.

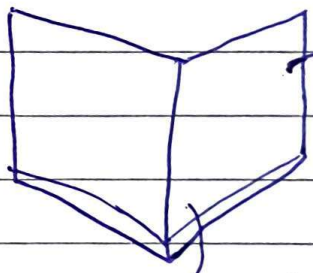
- Classical approach
- Cambridge approach
- Keynesian Theory. (V. Imp.)

I Classical approach

(Quantity theory of Money) QTM.



Irving Fisher
(Yale University)



1911

Demand for money is for Transaction purpose.

→ Changes in General level of Comodities prices or changes in value or purchasing power of money are determined first and foremost by change in the quantity of money in Circulation.

→ fisher's version, also termed as "Equation of Exchange" or "transaction approach"

Supply Demand

$$MV = PT$$

₹100

₹100,000 Supply.

- M = Total money in circulation (on an average) (1000)
- V = Transaction velocity of Circulation (i.e., average no. of times across all trans. a unit of money is spent)
- P = Average price level. (₹20)
- T = "Total no." of transactions. (5000)

PT

2 लाख = 100,000

(Demand)

→ Later Economists replaced 'T' by Real Output (Y)

→ After Some time, fisher Extended the Equation

$$MV + M'V' = PT$$

(constant)

MV → Demand deposits

M'V' → velocity

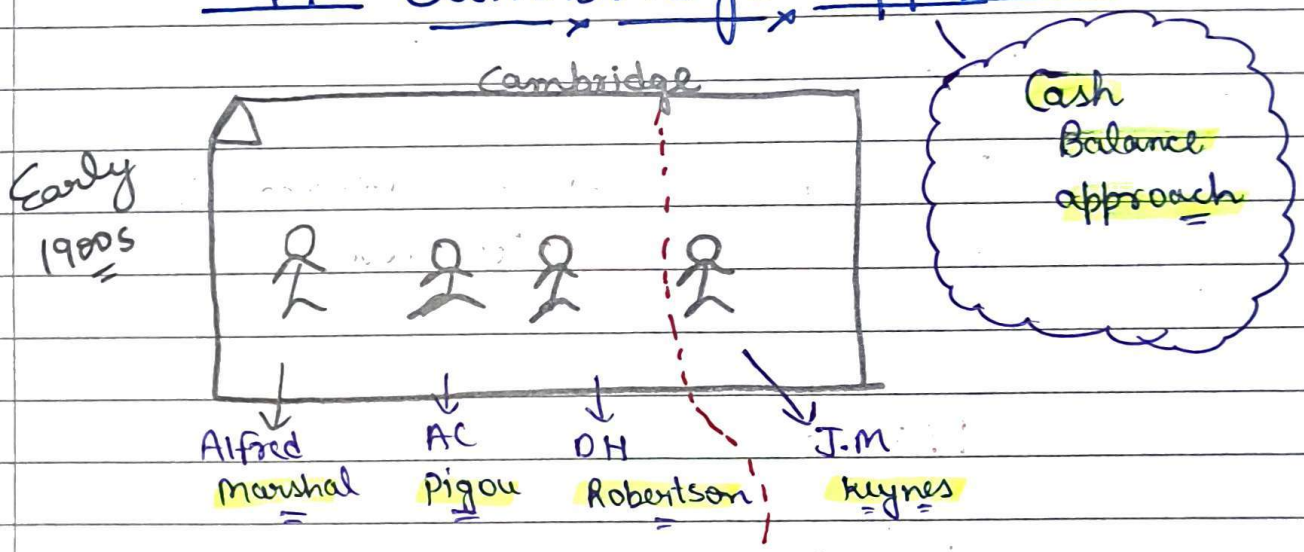
PT → demand for money

Supply of money

→ Velocity of money in circulation (V) and velocity of credit money (V') remain constant.
(demand deposits)

T is a function of National Income and since fisher assumed the full employment levels in the Economy T also remains constant in short run.

II Cambridge approach



→ Cambridge approach holds the view that money increases Utility in the following ways:-

a) Enabling the possibility of split-up of Sale & purchase.
Transaction Motive

b) Hedge against Uncertainity.
Precautionary motive
Money's role as temporary store of wealth
protection against Risk
'4m Expense' ready.
Barter
apple

→ Now, the question is how much money will be demanded ?? the answer is - it depends partly on Income and partly on other factors like wealth, Interest rates Etc.

→ the Cambridge money demand function is:-

$$M_d = KPY$$

(1500) M_d = demand for money

100 Y = Real national Income / Real Output

₹20 P = Average price level of currently produced goods & services.

k =

₹2000 PY = Nominal Income.

75% k = proportion of Nominal Income that people wants to hold as cash Balances.

This k is also known as "Cambridge k" - it is a parameter reflecting Economic structure and monetary habits, namely the ratio of total transactions to Income and the ratio of desired money balances to total transactions

Real Output × Current prices = Nominal Income

100 Units × ₹ 20 p.u. = ₹ 2000

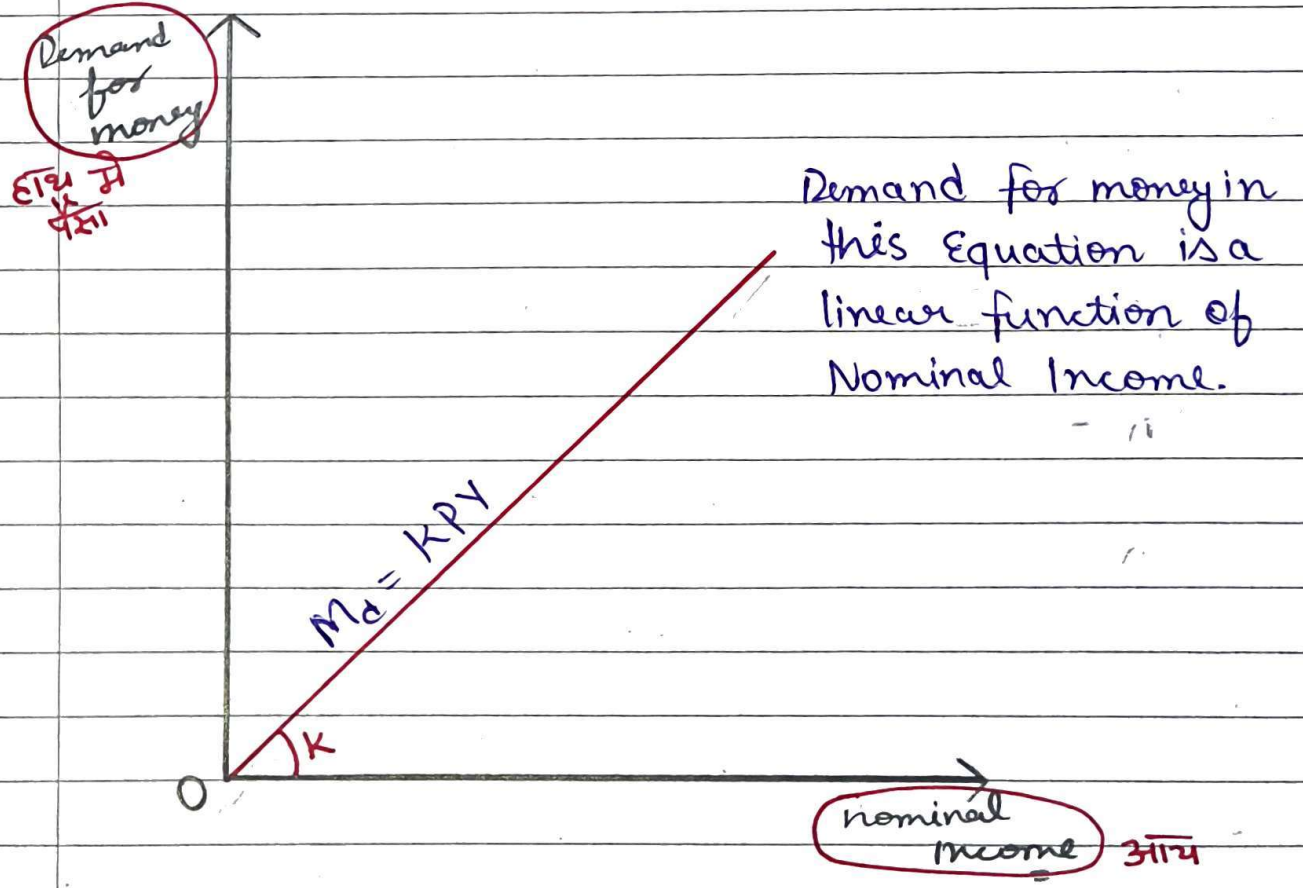
1500 Cash Balance

$1500 = 75\% \times 2000$

$1500 = 75\% \times$ Real × Current prices

$M_d = K \times Y \times P$

$M_d = KPY$



Demand for money in this Equation is a linear function of Nominal Income.

K = Slope of function

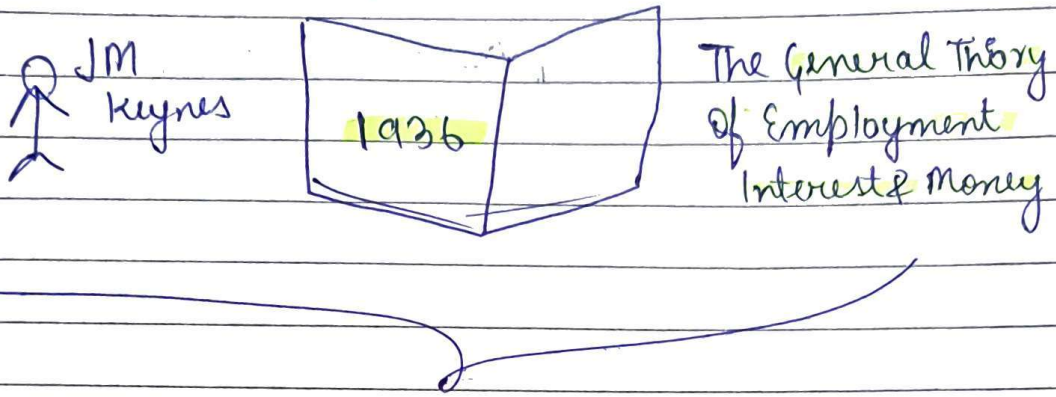
↓

It may vary.

$$K = \frac{M_d}{PY}$$

III The Keynesian Theory of Demand for money

(Liquidity preference Theory)



"people wants to hold money rather than Investing in Securities"

people hold money (M) in cash for (3) motives:-

1. Transaction motive
2. precautionary motive
3. Speculative motive.

(A) Transaction motive

→ relates to the need for cash for current transactions for personal & business exchange.

→ The transaction motive is further classified into Income motive and Business (trade) motive.

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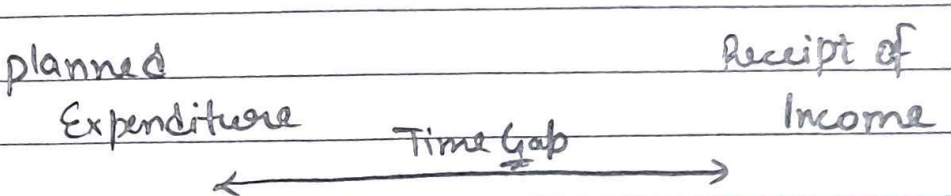
→ Both the above motives stressed on the requirement of individuals and businesses respectively to bridge the time gap receipt of income & planned expenditure.



→ Keynes did not consider the transaction balances as being affected by interest rates.

→ The transaction demand for money is directly proportional to income levels.

$$L_T = KY$$

- L_T → Demand for Transaction money (Transaction demand for money)
- K → (proportion) is the ratio of Earnings which is kept for transaction purposes.
- Y → Earnings.

assume ₹25 = 25% × ₹100

L_T = K . x Y

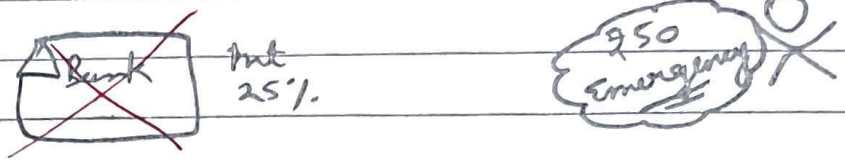
→ Keynes considered the aggregate demand for money for transaction purpose as Sum of Individual demand, therefore aggregate transaction demand for money is function of National Income.

Earnings (Income)	k	transaction demand for money
₹100	25%	₹ 25
₹200		₹ 50
₹300		₹ 70
₹400		₹ 10
National Income ₹100		₹155 (Aggregate transaction demand)

(B) Precautionary motive.

The amount of money demanded under precautionary motive depends on Size of Income, Prevailing Economic or political Conditions, personal characteristics.
(like optimism, pessimism, forsightedness Etc)

→ It is also not very sensitive to rate of interest

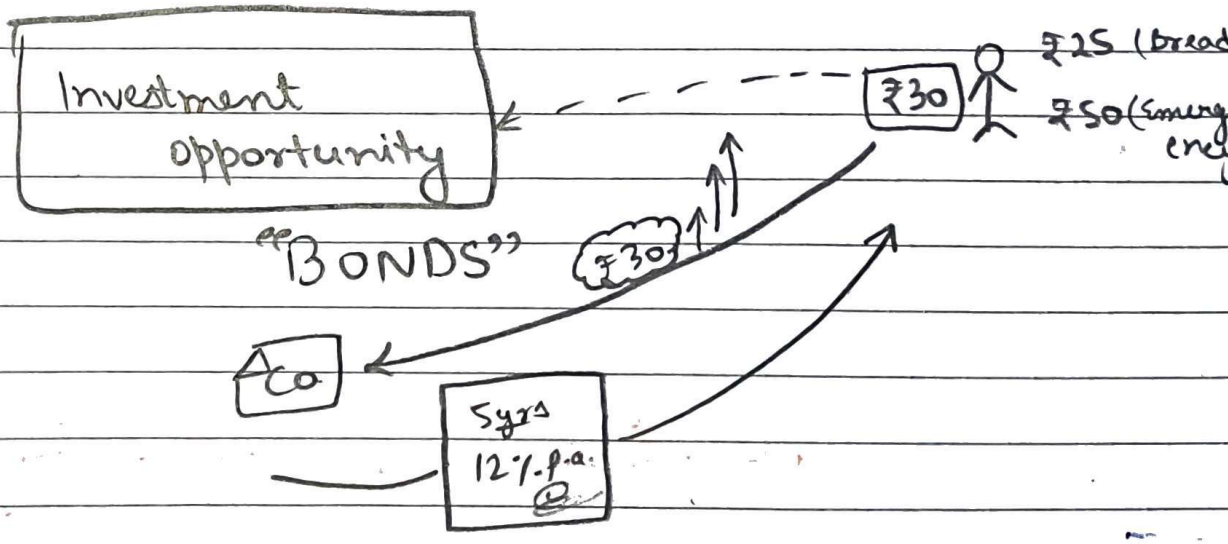


(c) Speculative motive

→ The speculative motive reflects peoples desire to hold Cash in order to be Equipped to Expoit any attractive Investment opportunity requiring Cash Expenditure.

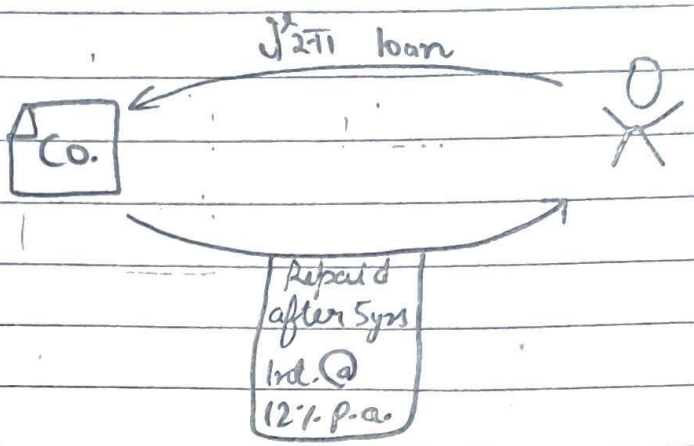
→ Keynes assumed that Expected returns on bonds are of two types:-

a) Interest payments
b) Expected rate of Capital Gains. ..... Market price Increases



* Market Rate of Interest → Interest Rate offered in market on Cash deposit

* BONDS →



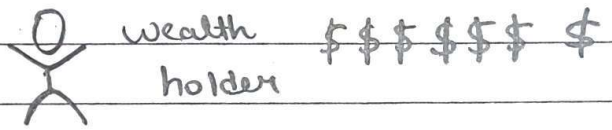
It has market price like shares (it is tradeable)

* Current Rate of Interest V/s Critical Rate of Interest

"ACTUAL" (है) → 6% p.a.

"NORMAL" → होना चाहिए

*



if Current Rate > Critical Rate

actual है 10% > Normal होना चाहिए 6%

then he expects the rate of Interest to fall in future.

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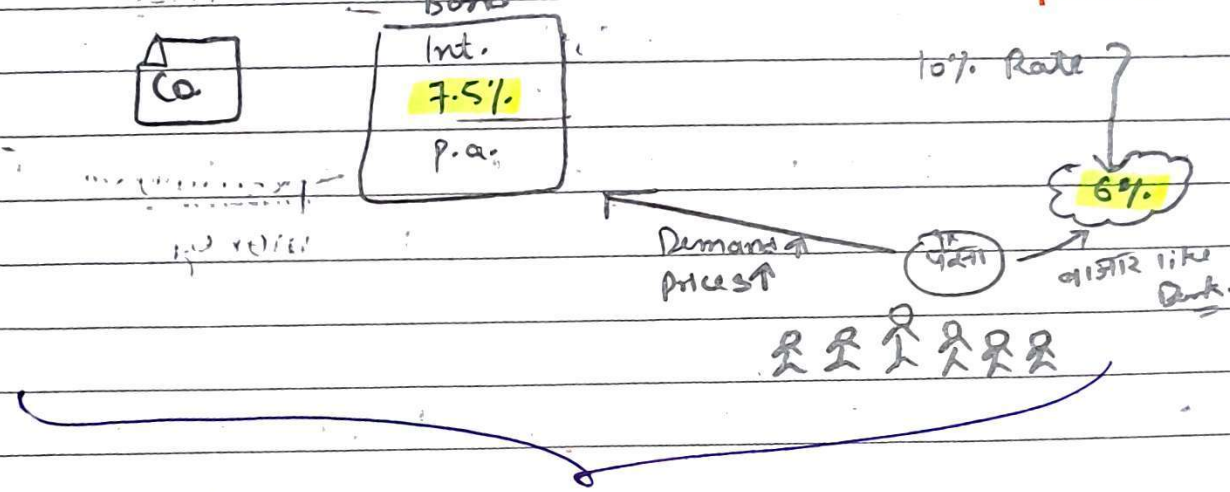
and when Rate of Interest falls. Bond prices Rises. → Inverse Relation between Int. rates & Bond prices.



So they will try to convert their cash holdings into bonds because:-

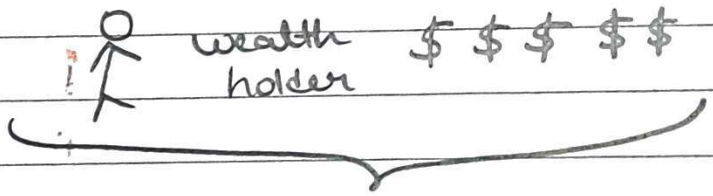
(i) they can Earn higher Interest rate.

(ii) they Expect "Capital Gains"

₹2

खरीदा ₹10
M.P ₹12

*



If Current Rate (6%.) < Critical Rate (10%.)

then he expects the rate of Interest to rise in future

and when rate of Interest rises. then Bond Price falls.

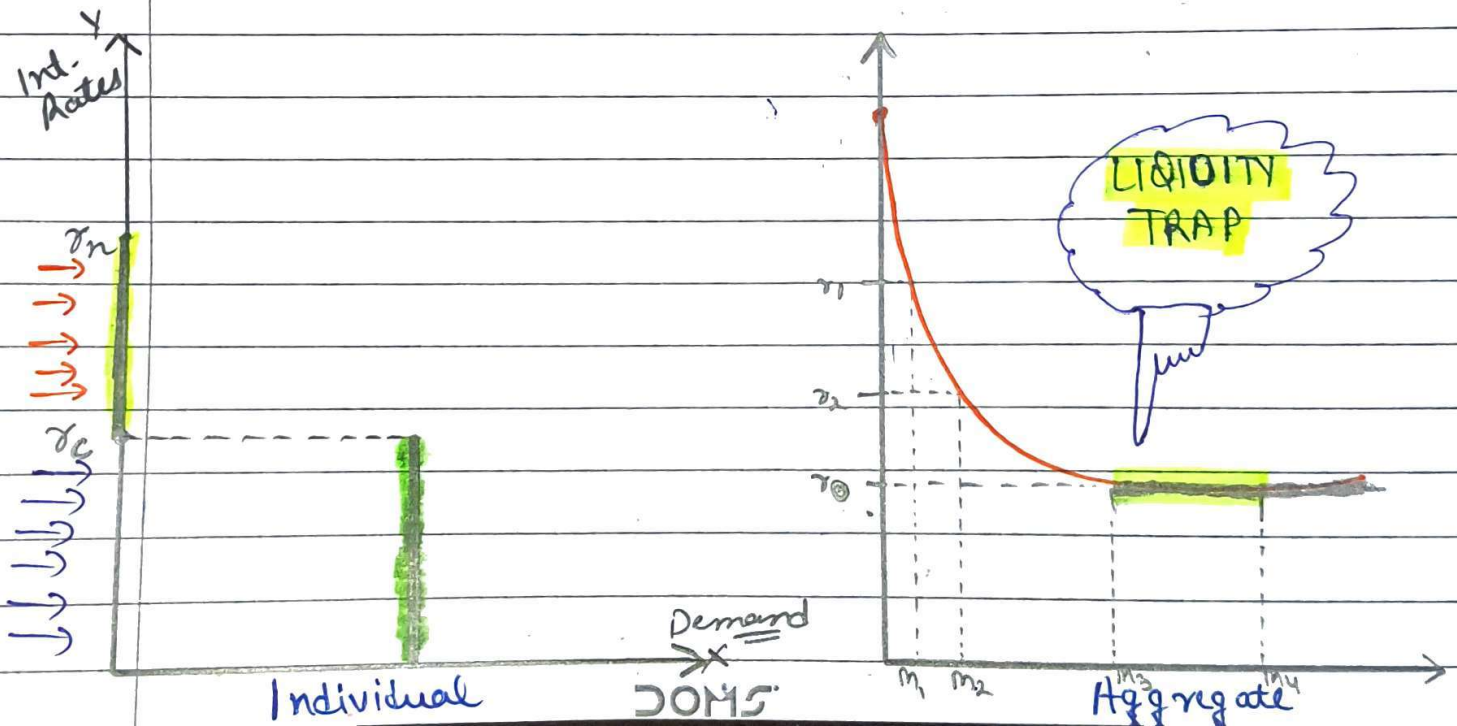
So, they will try to hold liquid cash rather than bonds because :-

a) loss of Interest forgone is small.
b) they can avoid Capital loss.
c) they can later buy bonds at lower prices.

* Current Rate IS HIGH :- LOW Speculative demand for money.

* Current Rate is low :- HIGH Speculative demand for money.

INVERSE Relation



SPECULATIVE DEMAND FOR MONEY.

* LIQUIDITY TRAP [on Ineffective Monetary policy]

RBI follows Expansionary Monetary policy.

Open market Operation

↓

Buy Govt. Securities

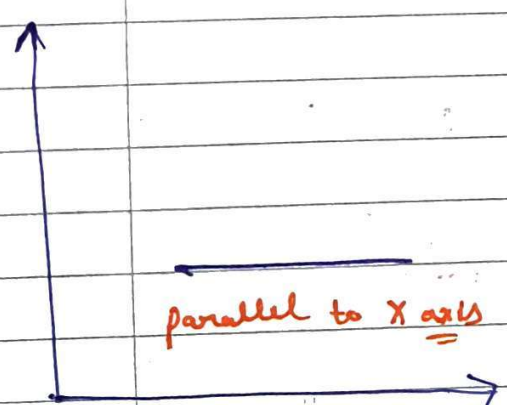
↓

To Increase Money Supply.
To Increase Income.
To Increase AD.
To Stimulate Economic growth.

Eg:
JAPAN
10 year yield
0.2% p.a

BUT

Interest rates are too low that the people do not want to hold bonds and only want to keep liquid Cash. i.e, Speculative demand becomes PERFECTLY ELASTIC with respect to Interest rates.



4 Post Keynesian Developments

↓
Keynes के बाद

(i) Inventory approach to Transaction purposes.

Baumol (1952) Tobin (1956)

→ They determined a theory of transaction demand for money, known as Inventory Theoretic approach.

Inventory → Emphasises on store of value

In this demand, money (real cash Balance) was Essentially viewed as Inventory held for transaction purposes.

→ Inventory model assumes that there are two media of store of value:-

a) money and

b) Interest bearing alternative financial asset. (Bank, Bond, shares)

(Interest वाला)

→ There is a fixed cost of making transfers between money and such alternative financial assets.

₹1L

"Brokerage charges" — Shares, Debs, Bonds.

→ Baumol asserts that Individuals hold money for Transaction purposes.

→ They also incur "Cost" when they hold the inventories of money.

↓ Opportunity Cost.

↓

Cost forgone is the interest rate which they could have earned if they invest their wealth in Savings deposit or fixed deposits or Bonds or shares.

→ Bonds & shares provide higher returns but are RISKY.

→ Saving deposits are quite safe and risk free but returns are low.

→ Baumol and Tobin proclaim that transaction demand for money depends on Rate of Interest.

↓

Saving deposit — Interest Rates ↑ — will hold less money in form of currency.

→ Baumol has proved that the average amount of cash withdrawal which minimises cost is given by:-

$$C = \sqrt{\frac{2by}{r}}$$

b is brokers fee
Y is Individual's Income.
r is rate of Interest

→ This approach also suggests that the demand for money and bonds depends on the cost making transfer between the two.

Brokers fee.

Borokers fee ↑ Cost of Transfer ↑

It will lead to lower transactions.

→

Money (Cash) (Demand deposits)	Bonds/shares etc
Returns 0% Risk free.	Returns (↑) Risk (↑)

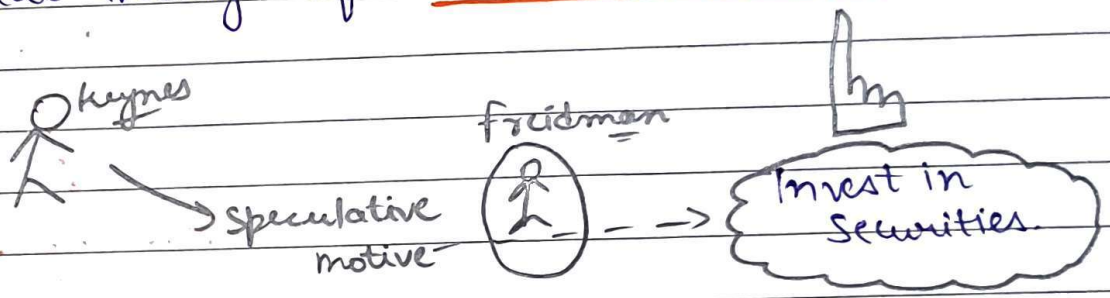
Asset Allocation.
is individual Choice.

② Friedman's Restatement of the "Quantity Theory"

Milton Friedman (1956)

→ He Extended Keynes's Speculative money demanded within framework of asset price theory.

→ He treats the demand for money as nothing more than the application of a more general theory of demand for Capital assets.



→ Demand for money is affected by :-

a) permanent Income.

~~Current Income~~

b) Relative 'returns' on assets

→ Measure of wealth :- present value of all future Incomes.

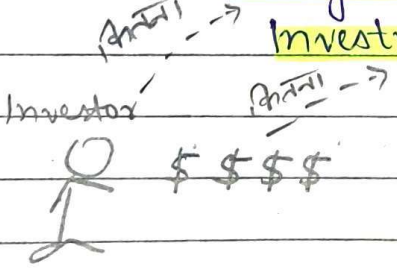
→ Friedman maintains that is the permanent Income which affects demand for money.

→ He determines (4) determines of demand for money.

- Total Wealth
- Demand for money is directly related to price levels
- demand for money rises if opportunity cost of money holdings fall.
  - Int. on bonds/shares (foregone) (↓)
- Demand for money is influenced by Inflation.

(3) Demand for money as Behaviour towards Risk.

James Tobin → According to him, an Investor is faced with a problem of what proportion of his portfolio of financial assets he should keep in form of ready money and in form of Investment.



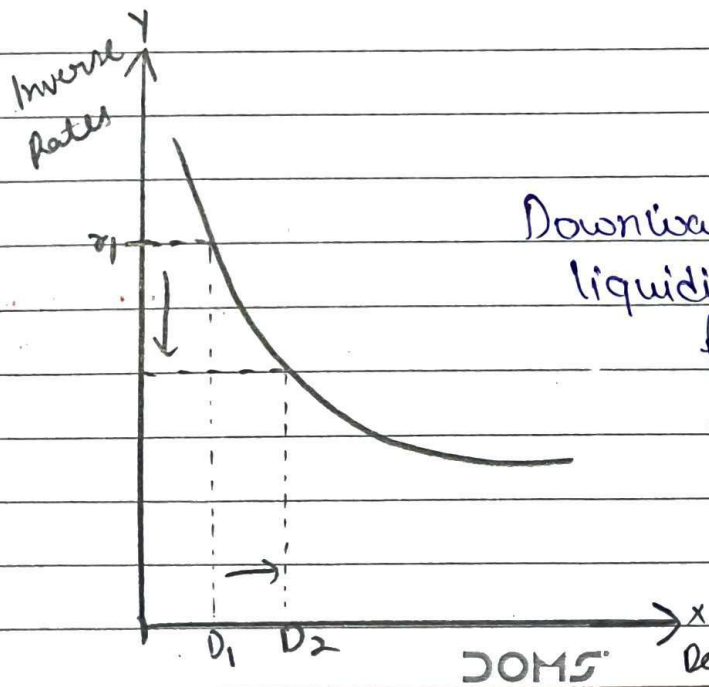
→ According to him, an Individual's behaviour shows RISK AVERSION., which means they prefer less risk.

Bonds or shares	Ready Money
Risk (↑)	Risk (x)
Return (↑)	Return (x)

→ Interest Rates (↑) Demand for holding money (↓)

→ Interest Rates (↓) Demand for holding money (↑)

"INVERSE"



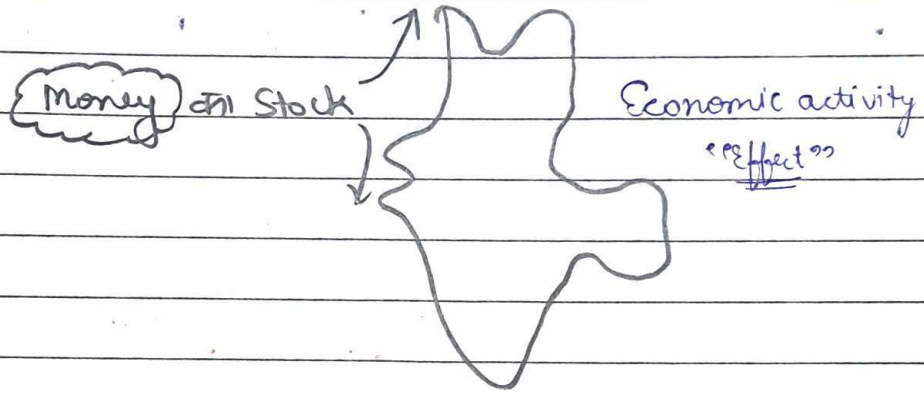
Downward slopping liquidity preference function Curve.

{Unit-2 Concept of Money Supply}

① Introduction

→ In real world, money can be defined for policy purposes as a set of liquid financial assets, variation in stock of which could impact aggregate economic activity.

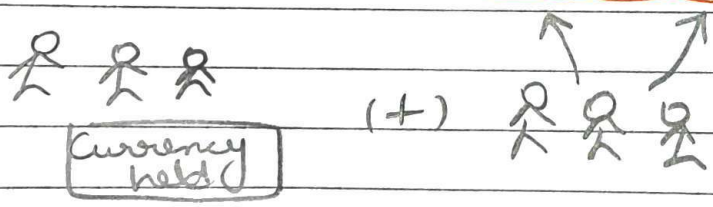
→ Economic stability requires that supply of money at any time should be maintained at optimum level.



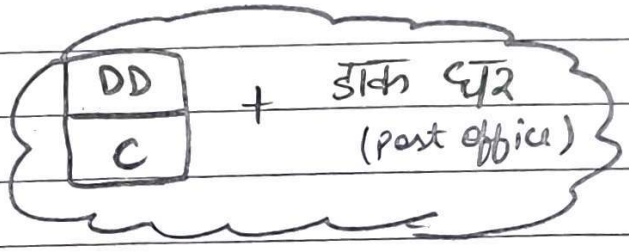
→ M_1 ie Narrow money means Currency with public (+) Demand deposits with Banks.

↓

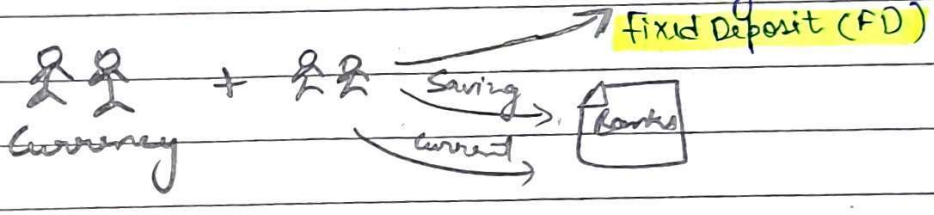
Current A/c, Savings A/c



→ M_2 is M_1 (+) Saving deposit of post office Savings Bank.



→ M_3 ie Broad Money = M_1 (+) Time deposits with Banking System.



→ Money supply is the stock of money held by public at a given point of time.

M_3 as at 31st March 2022 = ₹ 2,04,93,729 Crore

"Public"

↳ all Economic units (Individuals, firms & Individuals)

Except Producers of money.

- Government (Central, state local bodies)
- Banking System. (ABI, all commercial Banks.)

② Rationale of Measuring Money Supply.

→ It facilitates analysis of monetary developments in order to provide a deeper understanding of the clauses of money growth.

→ The Central banks all over the world adopt monetary policy to stablise price level and GDP Growth by directly Controlling the Supply of money.

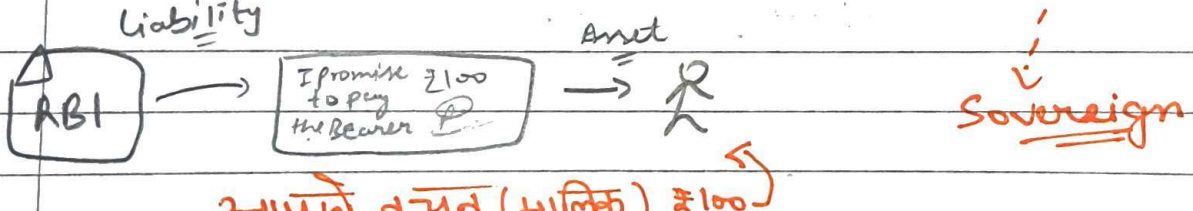
③ Sources of Money Supply.

(A) CENTRAL BANK.

→ Central Bank Issues currency notes.

→ paper Currency is such a representative money and is a debt Instrument.

→ It is a liability of the Central Bank and an asset of the holding public.



→ High powered money Issued by monetary author -ities is the source of all others forms of money.

(H)

→ The Currency Issued by Central Bank is called "FIAT MONEY"

→ order of authority.

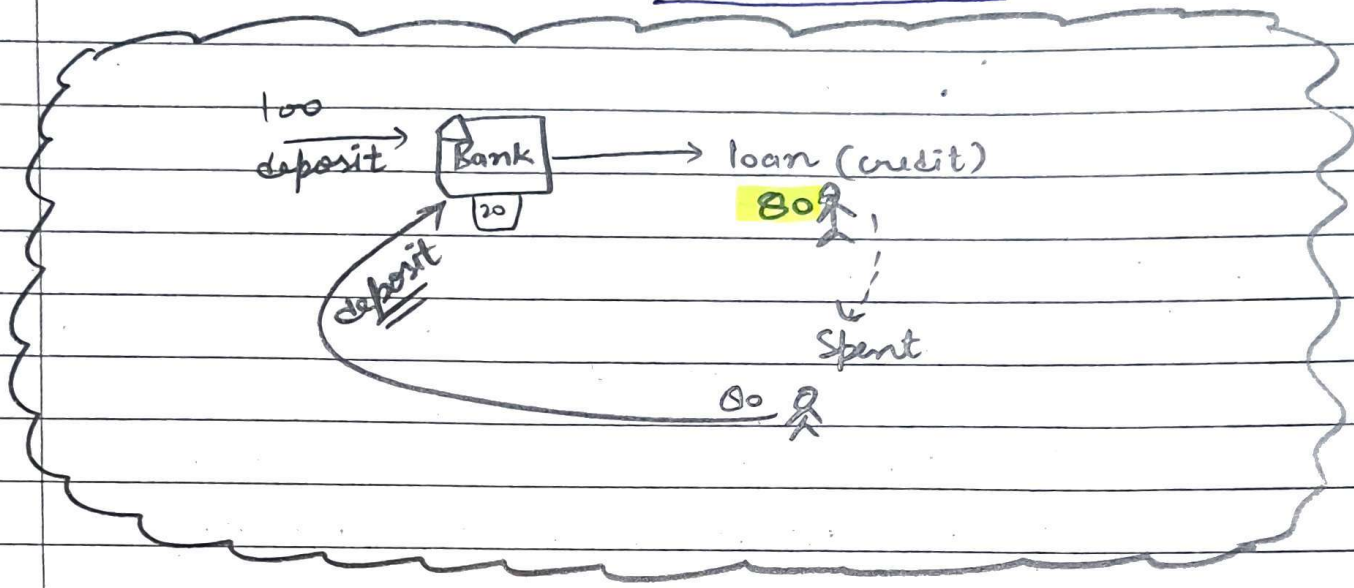
Fiduciary money - Based on Trust "cheque"

→ The Currency Issued by Central Bank is, in fact, a liability of the Central Bank ≠ the government. Therefore, in principle, it must be backed by an Equal value of assets mainly in form of gold and Exchange reserves

In practice, however most Countries adopted "a minimum reserve System" where in the Central Bank is Empowered to Issue Currency to any Extent by keeping only Certain minimum reserve of gold and foreign Securities.

(B) COMMERCIAL BANKS

→ The total money supply in the Economy is also determined by the Extent of Credit Created by Commercial Banks in the Country. Money so created by the commercial Banks is called **CREDIT MONEY.**



→ Advancement in Technology has made it possible for the development of new form of money i.e, CBCDs (Central Bank Digital Currencies)

RBI defines CBDC as the "legal tender" issued by Central Bank in digital form (Digital ₹)

→ Crypto Currencies face significant legislative Uncertainties and are not legally recognised in India as money. (Hence not Considered as money)

DOMS

(4) Measurement of money Supply

→ Till 1967-68, the RBI used to publish only a single narrow measure of money supply i.e,

M_1

→ From 1967-68, a broader measure of money supply called aggregate monetary Resources (AMR) was additionaly published

→ From 1977, following the recommendations of the Second working group on Money Supply. (SWG) the RBI has been publishing data on four alternatives measures:-

M_1 = Currency Notes + Coins with public (+) Demand deposits with Banking System (+) other deposits with RBI.

M_2 = M_1 (+) Savings deposit with post office Savings Bank.

M_3 = M_1 (+) Time deposits with Banking System.

M_4 = M_3 (+) Total deposits with post office Savings organisations. (Excluding National Savings certificate)

* In 1998, RBI starts publishing a set of four new monetary aggregates:

NM_1 = Currency with public (+) Demand deposits with Banking System.
(+) other deposits with RBI.

NM_2 = NM_1 + Short term time deposits of residents (one year)

NM_3 = NM_2 (+) long term time deposits of residents
(+) "Term funding" from financial institutions.

Liquidity aggregates are:-

L_1 = NM_3 (+) All deposits with Post office savings organisations (Excluding NSC)

L_2 = L_1 (+) Term deposits with term lending institutions and refinancing Institutions
(+) Term Borrowings by above Institutions
(+) Certificate of Deposits (CDs) issued by above Institutions.

(5) Concept of Money Multiplier.

→ the money created by the RBI is known as High powered money (H). [known as Monitary Base]

→ the money supply is defined :-

$$M = C + D$$

- M → Money Supply
- C → Currency held by public.
- D → Demand deposits.

→ Money Supply is affected by Monitary Base and Money multiplier.

$$M = m \times MB$$

- m → Money Multiplier
- MB → Monetary Base

$$\therefore m = \frac{M}{MB} = \frac{\text{Money Supply}}{\text{Monetary Base}}$$

Money multiplier is Ratio that Relates the change in Money Supply to given change in Monetary Base.

→ What Effects the Size of money multiplier??

money multiplier is reciprocal of the reserve ratio.

i.e, If R is reserve Ratio of all commercial Banks then

$$m = \frac{1}{R}$$ {Inverse Relation}

Eg

R = 25%.

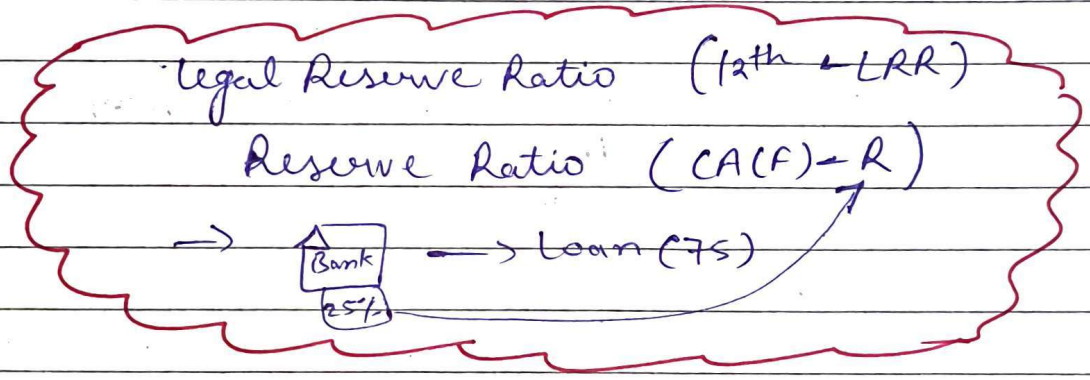
find m

Sol:-

$$m = \frac{1}{R} = \frac{1}{0.25} =$$ {4 times}

$$M = mi \times MB$$

$$₹4 = 1$$



(6) Money Multiplier approach to Supply of Money.

(Determinants of Money Supply)

→ There are two alternative theories in respect of determination of money Supply.

- Money Supply is determined Exogenously by Central Bank.
- money Supply is determined Endogenously by changes in Economic activities which affect

Exogenously:- having an External origin.

Endogenously:- having an Internal origin.

people's desire to hold Currency.

The money multiplier approach to money supply was propounded by Milton friedman and Anna Schwartz (1963) considers three factors as Immediate determinants of money supply.

- Monetary Base (MB) [Stock of High powered money (H)]
- Ratio of Reserves to deposits (Reserve ratio) $r = \frac{R}{D}$
- Ratio of Currency to deposits (currency deposit ratio - CDR) $c = \frac{C}{D}$

$H = C + TR$

$= C + ER + RR$

(i) High powered money. (Behaviour of Central Bank)

Money Base ↑ (H)

Direct Relation.

Money supply ↑

→ The total money supply in the economy will vary directly with supply of high powered money.

(ii) Reserve to deposit ratio (r) [Behaviour of Commercial Bank]

$$r = \frac{R}{D}$$

R → Reserve
D → Deposit

Loan 80 — Bank — 20 Reserve / 100 Deposit → 20% ⇒ r (CRR in Ch-12)

Loan 70 — Bank — 30 Reserve / 100 Deposit → r = 30%

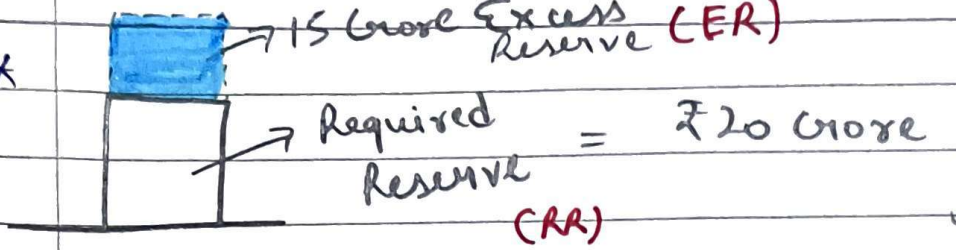
Loan 55 — Bank — = 45 Reserve / 100 Deposit = r = 45%

Money Supply बढ़ती जा रही

R = बढ़ता जा रहा

r ↑ Money Supply ↓

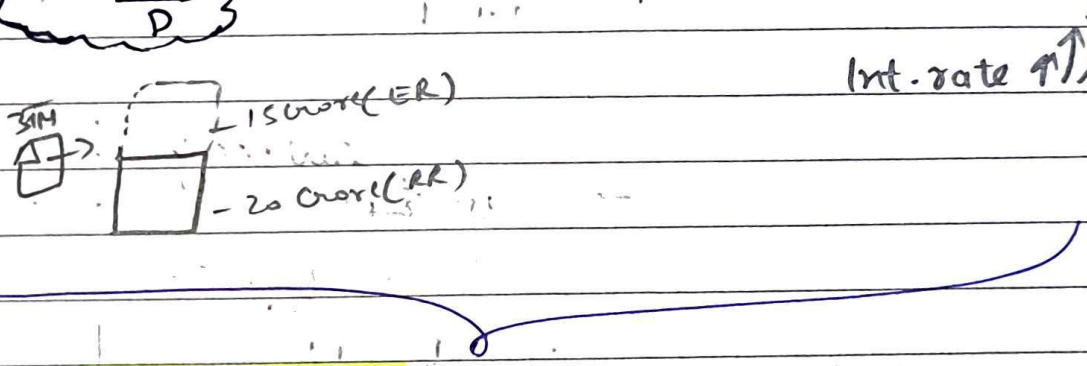
If the reserve ratio falls, there will be greater Expansion of deposits and money supply will Increase. ∴ Inverse Relation



$\therefore$ **TR = ER + RR**

→ If Interest rates Increase, it means that the opportunity Costs of holding Excess reserve rises because the Banks have to sacrifice possible higher Earnings and hence the desired ratio of Excess reserves (ER) to deposits fall.

$e = \frac{ED}{D}$

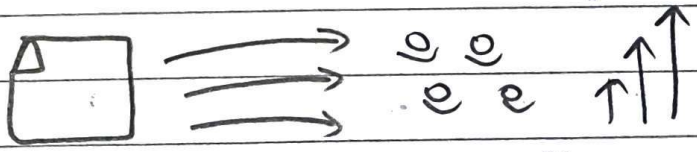


INVERSE Relation between ER and Market Interest Rate.

$i = \frac{A}{D}$

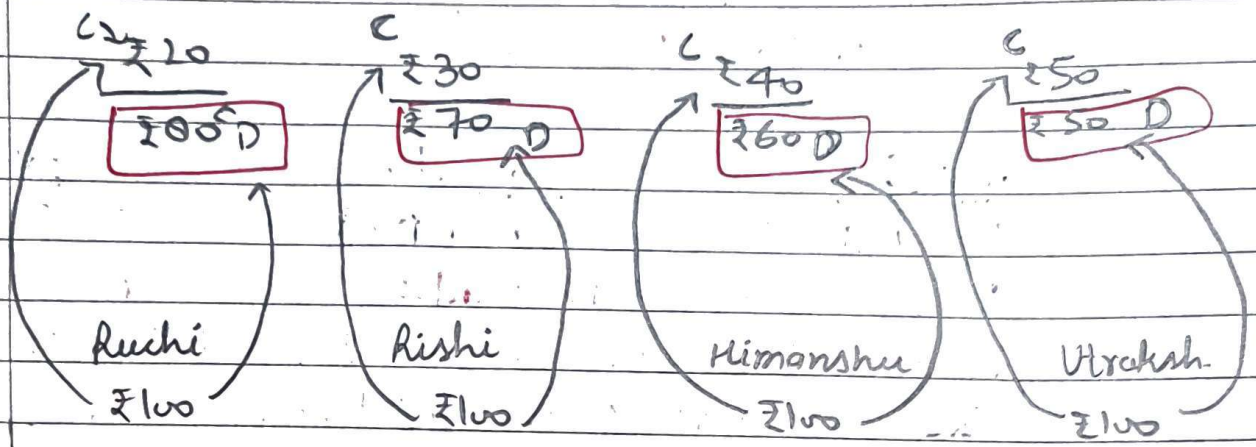
$e = \frac{E}{D}$

* If Bank fears that deposit outflows are likely to Increase then it will INCREASE the ER.



"withdraw"

(iii) Currency Deposit Ratio (c) [Behaviour of public]



$c = 0.25$ | $c = 0.43$ | $c = 0.66$ | $c = 1$

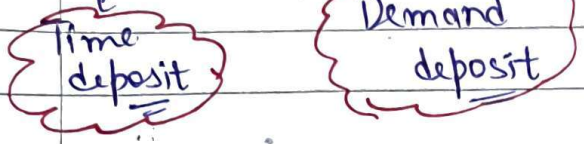
$$c = \frac{C}{D}$$ (C ← Currency, D ← Deposit)

Deposits ↓↓ c = ↑↑

→ The Currency deposit Ratio (c) represents the degree of adoption of Banking habits by the people.

→ The Smaller the CDR (c), the larger would be money multiplier (i.e., inverse relation)

* **TD - DD Ratio**



₹20 (F.D) → 5 years	₹30 (F.D)	₹40 (F.D)
₹80 (DD) → 1 day	₹70 (D.D)	₹60 (D.D)
0.25	0.43	0.66
Rank		
FD - ₹20	FD - ₹30	FD - ₹40

→ Increase in TD-DD ratio means greater availability of free reserves and consequently larger money deposits and monetary Expansion is possible.
(ie DIRECT Relation)

* Money Supply is affected by :- $H \uparrow m \uparrow$ $\Rightarrow$ (H) (m) r c l

Fractional Reserve System

(i) H, (ii) m } DIRECT Relation

(iii) r, (iv) c } INVERSE Relation

(v) e

DOMS

$$M = C + D \longrightarrow (1)$$

M → Money Supply ⇒ C → Currency, D → Demand deposits

$$\left\{ c = \frac{C}{D} \right\}$$

$$C = cD$$

$$M = cD + D$$

$$M = (c + 1) D$$

Eq2

$$H = C + TR$$

$$= C + RR$$

$$H = C + rD$$

$$H = cD + rD$$

$$H = D(c + r)$$

$$\therefore D = \frac{H}{(c + r)}$$

$$\{ ER = 0 \}$$

$$\left\{ r = \frac{R}{D} \right\}$$

$$R = rD$$

$$M = (c + 1) \frac{H}{(c + r)}$$

$$M = \frac{(c+1)}{(c+r)} H$$

- M → Money Supply
- $\frac{(c+1)}{(c+r)}$ → money multiplier (m)
- H → High powered money. (Monetary Base)

$$\therefore m = \frac{(c+1)}{(c+r)}$$

When there Excess Reserves then.

$$m = \frac{c+1}{c+r+e}$$

If

Eg

$r = 10\%$
$C = 400$
$D = 800$
$E = 0.8$

$r = \frac{10}{100} = 0.1$

$c = \frac{C}{D} = \frac{400}{800} = 0.5$

$e = \frac{0.8}{800} = 0.001$

find m

Sol

$$m = \frac{c+1}{c+r+e}$$

$$= \frac{0.5+1}{0.5+0.1+0.001} = \frac{1.5}{0.601} = 2.495$$

(7) "Monetary Policy" & Money Supply.

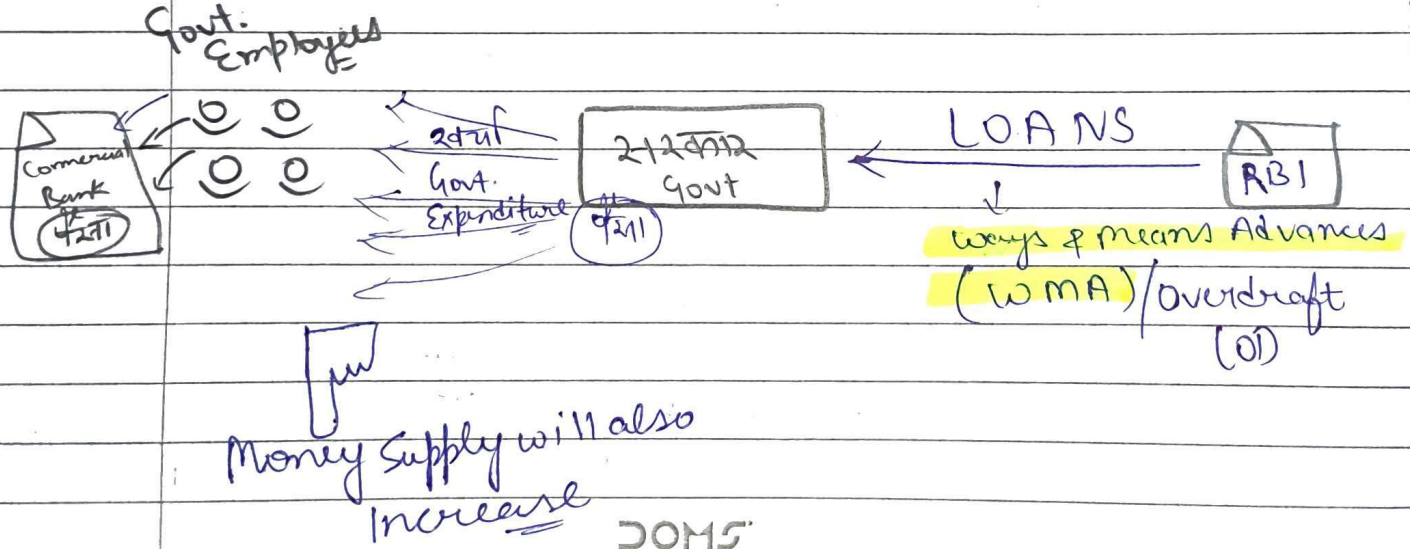
↓

Policy of Central Bank

Eg Bank rate (↑) Money Supply (↓)
Repo rate
Open market operation.
↳ Sell Govt. Securities Money Supply (↓)

$$\Delta \text{ money Supply} = \frac{1}{R} \times \Delta \text{Reserves}$$

(8) Government Expenditure & Money Supply



DOMS

⑨ Important points & formulas.

① Reserve money / Central Bank money / Base money / High powered money.

= Currency in Circulation
(+) Bankers Deposit with RBI
(+) other Deposit with RBI

(ii) Currency with Public

= Notes in Circulation
(+) All coins in Circulation.
(−) Cash on hand with Banks.

(iii) Deposit money of public

= Demand deposit with Bank
(+) other deposit with RBI

(iv) M_1

Currency with public + Deposit money of public.

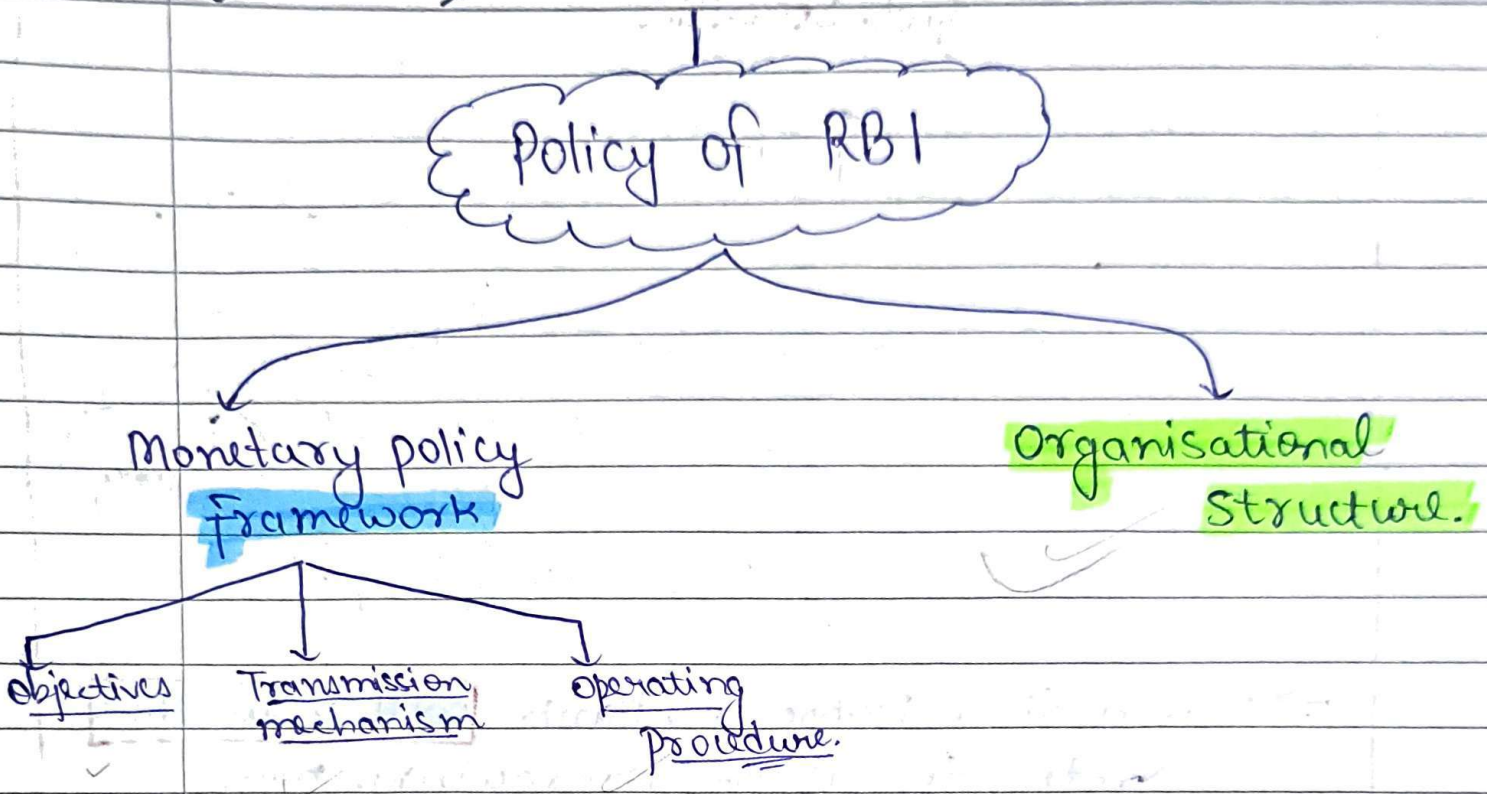
(v) Inter Bank deposits

DOMS

(vi) Supply of money depends on.

- Decision of Central Bank
- Supply responses of Commercial Banks

{Unit - 3 Monetary Policy}



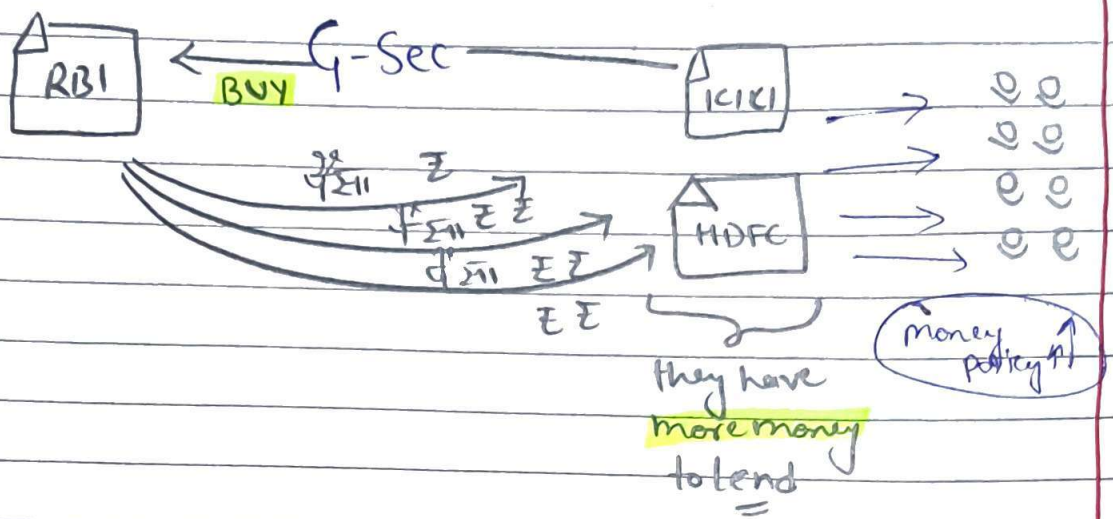
① Monetary Policy.

RBI Conducts monetary policy by adjusting the Supply of money, usually through buying or Selling Securities in the open market.

{ open market operations Effect Short term Interest rates, which in turn Effects long term Interest rates and Economic activity.

when RBI "lowers the Interest rate", monetary policy is easing (Expansionary money policy).
when RBI "Increase the Interest rate", monetary policy is tightening (Contractionary money policy)

Govt. Securities



→ when this happens, bank will reduce Int. rates to make borrowings more attractive.

(2) Monetary Policy Framework.

(A) OBJECTIVES OF MONETARY POLICY.

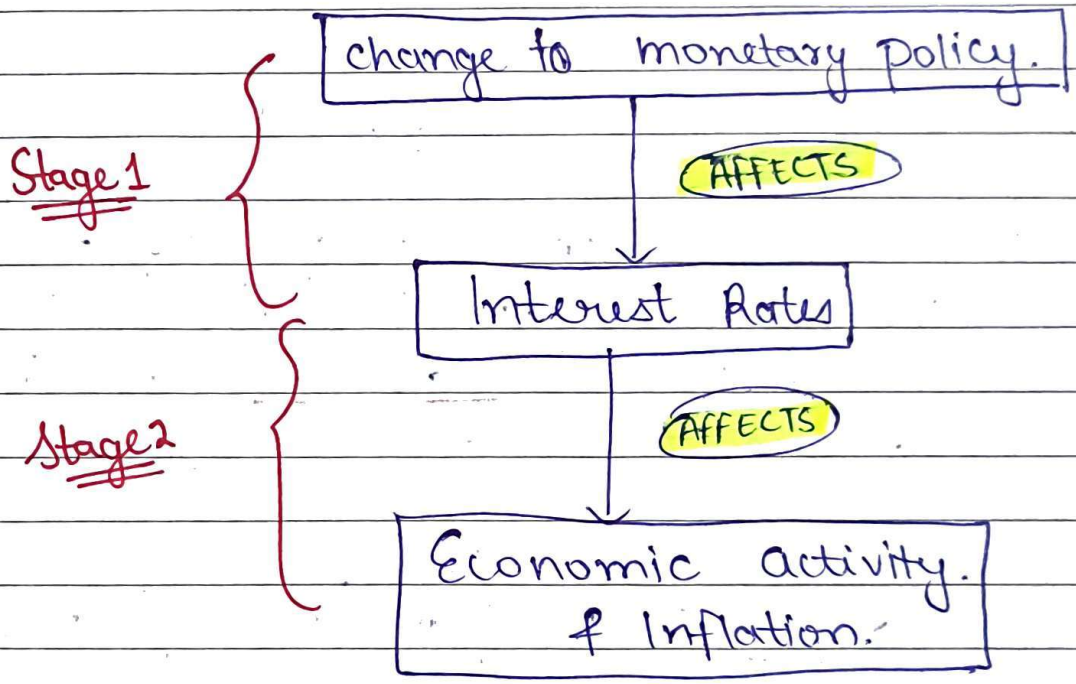
→ The RBI Act, 1934 in its preamble sets out the objectives of the Bank as "to regulate the Issue of Bank notes and keeping of reserves with a view to securing monetary stability in India and generally to operate that Currency and Credit System of the Country to its advantage."

managed floating

→ fundamentally, the primary objective of monetary policy has been the maintainence of judicious balance between price stability and Economic growth.

(B) TRANSMISSION of Monetary Policy.

→ The transmission can be presented as:-

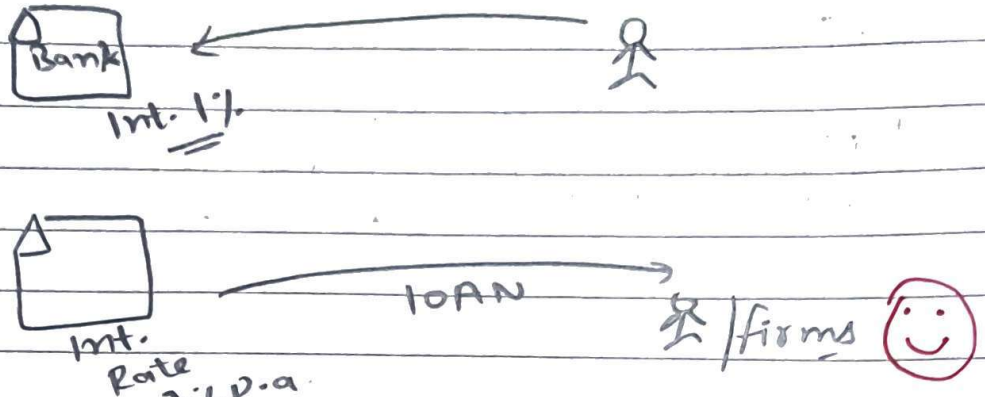


→ Channels of Monetary policy Transmission.

(i) Saving & Investment channel

→ lower Interest Rates on Bank deposits reduce the Incentive of households to Save.

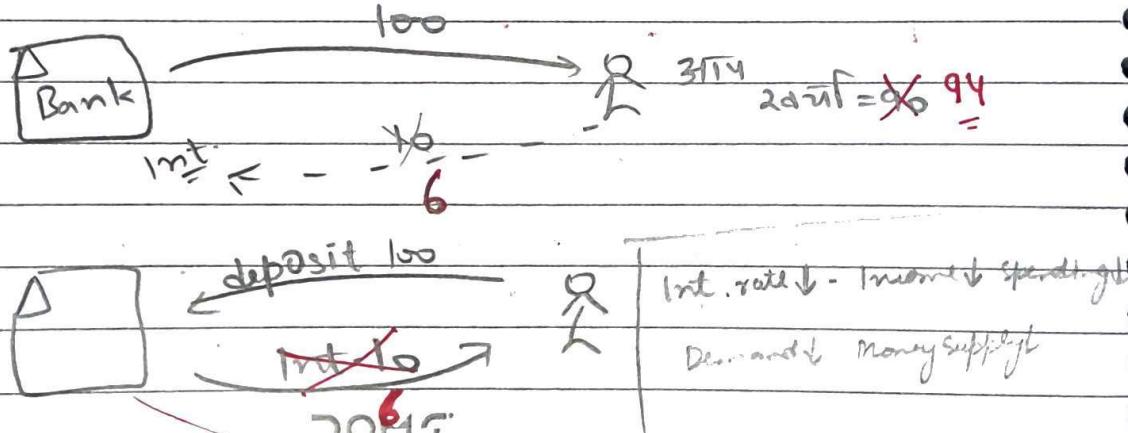
→ Lower Interest rates for loans can Encourage the households & business to borrow more.



(ii) Cash- flow Channel. Lending rate↓ Int. Repayment↓ Cash available↑ Money Supply↑

→ Reduction in lending rates reduces Int. repayments on debt, increasing the amt. of Cash available for households / firms to Spend on goods & services.

→ At the Same time, a reduction in Interest rates reduces the Income that households / firms get from deposits and Some may choose to restrict their spendings.

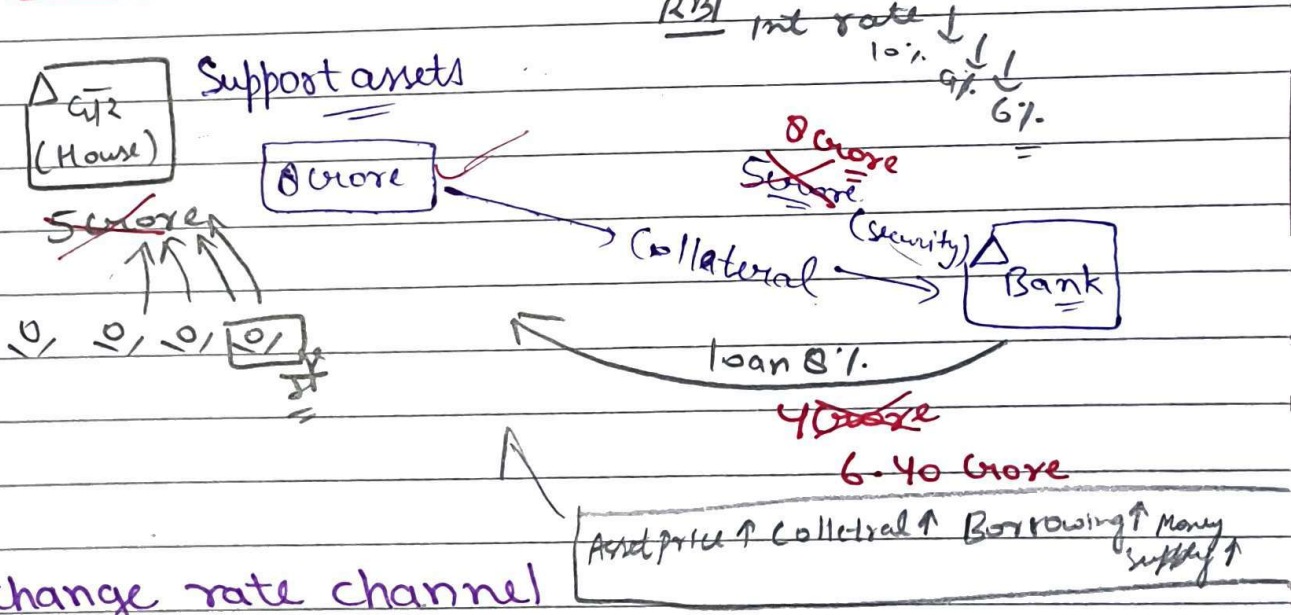


(iii) Asset prices & wealth Channel

→ Asset prices & wealth influence how much people can borrow & how much they spend in Economy.

→ Lower Interest rates support asset prices (Eg. housing) by Encouraging demand for assets.
Int. rate ↓ Asset demand ↑ Money Supply ↑

→ Higher asset price also increases the collateral of the asset that is available for banks to lend against. This can make borrowings much easier for households & firms.



(iv) Exchange rate channel

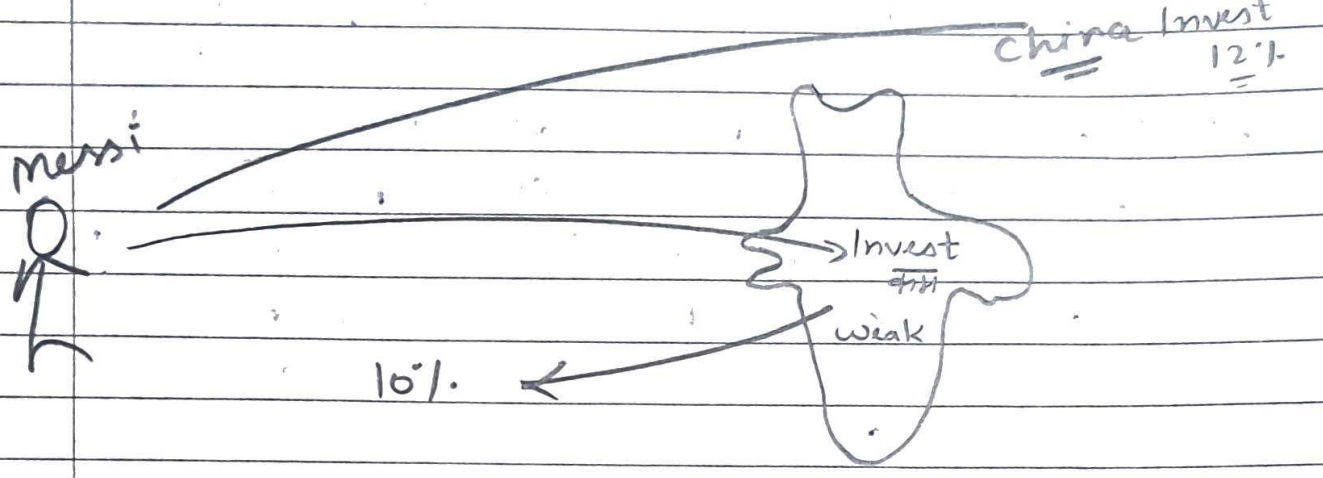
→ lower Interest rates reduce the returns Investors Earn from assets in India. lower returns reduce demand for assets in India, thus foreign Investors shift their funds from India.

Int. rate ↓ Returns ↓ Demand for Assets ↓ Money Supply ↓

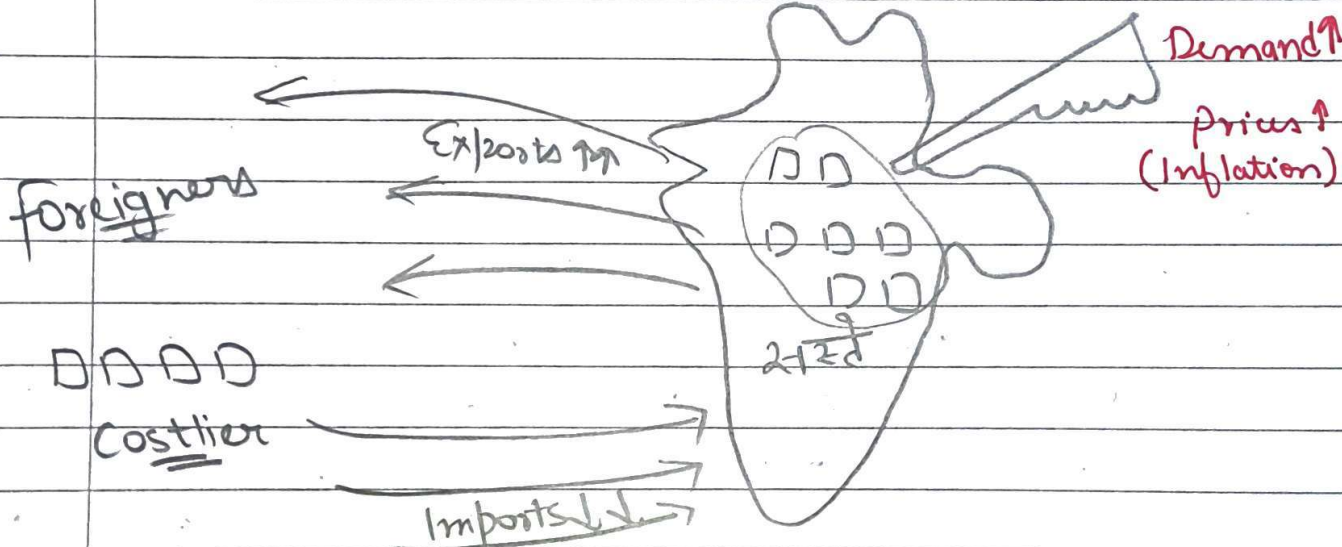
Int. rate ↓ lower Exchange Rate ↓
⇒ Exports ↑ Inflation ↑

→ Reduction in Interest rates result in lower Exchange rate, making foreign goods costlier and domestic goods cheaper. This leads to Increase in Exports and decrease in Imports.
(Due to Increase in Exports, Inflation may also Increase)

Currency depriciate



1$ = ₹80
1$ = ₹100 [weak currency Depreciation]



© Operating Procedures & Instruments.

(i) **Quantitative tools** – Tools applied by the policy that Impact money Supply in the Entire economy.

(ii) **Qualitative tools** – Specific tools or Selective tools that affect money Supply in Specific Sectors.

Tools

a) **Reserve Ratio**

→ **CRR** Cash Reserve Ratio refers to the fraction of total net Demand and time liabilities (NDTL) of a Scheduled Commercial Bank in India which it Should maintain as Cash deposit with RBI.

→ **SLR** Statutory liquidity Ratio is what the Scheduled Commercial Banks in India are required to maintain as fixed % of their Net Demand & Time Liabilities (NDTL) in Cash, Gold or approved Securities.

(b) **Open market operations**

(✓) Discussed Earlier.

(c) **Moral Suasion:-** By way of persuasion the RBI convinces banks to keep money in govt. securities, rather than in certain sectors.

Qualitative

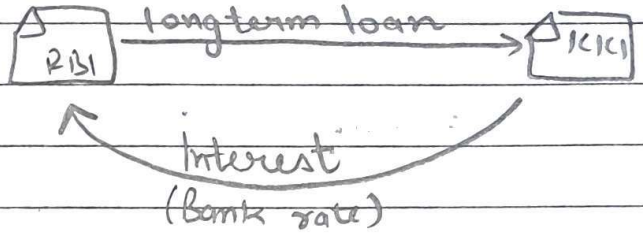
(D) **Margin Requirements** RBI prescribes certain margin (Difference btw. security and loan amount) against collateral, which affects borrowing of the customer.

Qualitative

→ Market Stabilisation Schemes (MSS)

It Includes policy Rates like Bank rate.

The Int. rate at which RBI lends long-term funds to Commercial Banks.



However, presently RBI also uses liquidity adjustment facility (LAF)

Liquidity Adjustment facility (LAF)

Instruments to adjust liquidity.

Repo rate

Policy rate

Short term loan

RBI → ICICI

Interest

Under this Repurchase Agreement, Banks are required to provide Govt. Securities as Collateral and later buy them back at after pre defined time.

Reverse Reporate

deposit

ICICI

interest

Reporate (-) 1 %.

Marginal Standing facility (MSF) Rate.

1 Day loan

RBI → ICICI

Liquidity Crunch

Interest

MSF Rate

Reporate (+) 1 %.

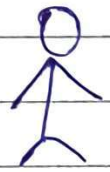
* Rates ↑ (Bank rate, Reverse Repo rate, Reporate CRR, SLR)

Money Supply ↓ → Contractionary Money policy.

3 Organisational Structure

→ the RBI act 1934, was amended on 27 June, 2016 for giving a statutory backing the monetary policy framework. Agreement (MPFA) and for setting up Monetary policy Committee. (MPC). The Monetary policy framework Agreement is an agreement reached between GDI & RBI on Maximum tolerable Inflation rate that RBI should target to achieve price stability.

Announcement of an official target range for Inflation is known as Inflation targeting.



Urjit Patel

Report 2014 → RBI abandon the multiple Indicator approach and make Inflation targeting the primary objective of its monetary policy.

→ The central government has notified 4% Consumer Price Index (CPI) Inflation as target.

→ **FAILURE**

- → Average Inflation > upper tolerance level. for (3) Consecutive quarters.
- → Average Inflation < lower tolerance level. for (3) Consecutive quarters.

→ RBI is mandadated to publish a Monetary Policy report every (6) months.