Y = Real national income

Thus,

$M^d = 40\% (100 \times 4,00,000)$

CH-8 MONEY MARKET

Unit 1 : The Concept of Money Demand.

* Higher the income, higher the demand for money.
* Higher the price level, higher the demand for money.
* Higher the interest rate, lower the demand for money.

Important theories

1) Quantity theory of Money / equation of exchange / Transaction Approach.

↓

Propounded by 'Irving Fisher' of 'Yale University'

Book : 'Purchasing power of money'

Year : 1911

⇓

(Quantity of money, Price level Direct rel^n)

(Value of money, Quantity of money Inverse rel^n)

⇓

equation : $\frac{MV}{T}$ → Demand for money

Supply ← $MV = PT$

Extended eq^n :-

$MV + M'V' = PT$

Where,

$M'V'$ are for credit money.

* Assumption

Here,

'V' remains constant

'T' remains constant.

2) Neo classical Approach / The Cambridge approach / Cash balance Approach

⇓

Propounded by :- Alfred Marshal, A-C Pigou, John Keynes etc.

⇓

Money increases utility in two ways :-

1) to split-up sale and purchase in two different points
2) to hedge against uncertainty (protection)

Functions of money :-

1) Transaction Motive :- Medium of exchange
2) Precaution Motive :- store of value.

Equation :- $Md = KPY$ (K → constant i.e proportion of income; Y → Real Income; P → Inflation rate; PY → Nominal income)

3) Keynesian Theory of Demand for Money.

Also known as "Liquidity Preference theory."

Propounded by : John Mayard Keynes

Book : The general theory of Employment, Interest and money.

Year : 1936.

stated three motives:

1) Transaction motive
2) Precautionary
3) Speculative motive

Demand for money is only affected by :-

1) Income
2) Interest rate.

A] The Transaction Motive
- Personal or business transaction
Affected directly with Income.
Not related to interest rates.
$L_T = kY$
Higher Y ↑ Higher L_T i.e DOM ↑

B] Precautionary motive
determined by income and characteristics.
Optimistic → +ve ⇒ Less DOM ↓
Pessimistic ⇒ -ve ⇒ More ↑
Not affected by interest.

C] Speculative
Current rate > Critical rate
⇒ Invest ✓ ⇒ Speculative DOM ↓
⇒ 1) High interest rate
⇒ 2) Capital gain.

Post-Keysian Theory

4) Inventory Approach to Transaction balances / Real Cash
Square Root Rule $C = \sqrt{\frac{2bY}{r}}$
Propounded by: Boumal and Tobin
Inventory (stock of money) are two media for storing value:
a) Money
b) Interest bearing.
↓
There is a cost incurred in transfering money to assets. known as transaction cost.
When the cash is hold in hand they also incurr cost of interest forgone known as "opportunity cost" → Int. that could have been earned
Transaction cost ↑ DOM ↑
Interest ↑ DOM ↓
(-) Transaction cost.

5) Fridman's Restatement of Quantity theory / Assets Price theory.
Propounded by: Milton Friedman
Demand for money affected by:-
1) Permanent Income
Present value of all future income
2) Relative returns on assets.
★ Price Level ↑ Demand for Money ↑
{POV: Transaction demand for money}
★ Opportunity cost ↑ Demand for money ↓
★ Inflation rate ↑ Demand for money ↓
↳ decreases value of money
↳ Increases opp. cost
{POV: Speculative demand for money}
★ Total wealth = ★ Permanent Income / Discount Rate

6) Demand for money a behaviour towards Risk
Propounded by: James To
According to Tobin, demand for money depends on the Risk aversion behaviour.
Risk taking capacity ↑↑ DOM ↓↓ & vice versa.

★ Discount Rate = Money + Bonds + Equity + Physical Capital + Human Capital / 5

CH-8 Money Market

Unit 2 - Concept of Money Supply

1] Credit Multiplier / Deposit Multiplier / Deposit Expansion Multiplier

$= \frac{1}{r} = \frac{1}{\text{Required Reserve Ratio}}$ → SLR + CRR

2] Money Multiplier $= \frac{1+C}{r+e+C}$

C - currency ratio = Currency / Deposit

r - reserve ratio = Reserve / Deposit

e - excess reserve = Excess / Deposit

Money Supply = m (Multiplier) × MB (Monetary Base)

$m = \frac{\text{Money Supply}}{\text{Monetary base}}$.

3) Measurement of money Supply (Aggregate Monetary Resources)

M1 = ★Currency notes and coins with people
+ Current deposits with Bank (CASA deposits)
+ other deposits with RBI [Most Liquid]

[Narrow Money]

★ Notes in circulation + Coins + Small coins (-) Cash in Hand with Bank.

Other deposits with RBI → [Main deposit [Banks] [CRR]; Other deposits [IMF / World Bank]]

M_2 = M1 + Savings deposits with post office savings bank

Net of interbank deposit.

M3 = M1 + Net time deposits with banking system

M4 = M3 + Total deposit with the Post office Savings Organisation (excluding National Savings Certificate)

[time + demand] [Saving + FD + RD]

(F.D with Govt)

[Broad Money]

Money Multiplier Approach to Supply of Money

Propounded by :- Milton Friedman and Anna Schwartz

Year :- 1963

Determinants of money supply :-

a) The stock of high-powered money (H) ⇒ Behaviour of Central Bank.

b) The ratio of reserve to deposit ⇒ Behaviour of Commercial Bank.

c) The ratio of currency to deposit ⇒ Behaviour of Public

a) Behaviour of Central Bank (H) :-

* Central Bank controls the supply of the high-Powered money.
* Assumptions :- Behaviour of Public and commercial Bank remains unchanged.
* High Powered Money (H) ⇑ Money Multiplier ↑ Money Supply ⇑ & Vice versa

b) The behaviour of Commercial Banks (e) :-

* Commercial banks keep some money in form of Reserve
* RRR (Required Reserve Ratio) ⇑ Money Supply ⇓ & vice versa.

Sometimes, bank keeps more reserves than RRR which is known as "Excess Reserves".

* Excess Reserves :- (e)

Factors affecting 'e'

- Market interest rates [charged by bank]
- Expected deposit outflows [withdrawl]

* Higher the withdrawl ↑ e ↑ m ↓ Money Supply ↓
* Int. rate ↑ Withdrawl ↓ e ↓ m ↑ Money Supply ↑