MODULE IV
MONEY SUPPLY

Q.1 Define the term Money Supply and explain the constituents of money supply.

Q.2 Determinants of Money Supply

Q. 3 Velocity of circulation of money and inflation related.

Q. Money Supply and the constituents of money supply.

INTRODUCTION:-

- The money supply is an important variable in the formulation of economic policy.
- The supply of money at any particular point of time is the total amount of money in the economy.
- It refers to the stock of money held by people in spendable form.
- The central bank is the main source of money supply in the country.

Constituents of Money Supply

Traditional Approach (Narrow Concept)

(i) Coins + (ii) Currency notes + (iii) Demand Deposits

Modern Approach (Wider Concept)

Money

(i) Coin +
(ii) Currency notes +
(iii) Demand Deposits

Near Money

(iv) Time Deposits + Deposits with non-banking financial intermediaries such as :
- (a) Deposits with Post savings banks office,
- (b) Units of Unit Trust
- (c) Deposits with the Building societies etc.

(v) Bills :
- (a) Treasury Bills
- (b) Bills of Exchange

(vi) Government securities :
- (a) Bonds
- (b) National Savings Certificate etc.

(vii) Equity Shares

https://sdak24.com/money-supply-bcom-notes/
https://thewire.in/banking/rbi-nepal-demonetisation

B) **Constituents of money supply**.

I) **Traditional Approach:** Since July, 1935 the RBI adopted only one measures of money supply M1.

(currency and demand deposit)

II) From April 1968, the RBI adopted Aggregate Monetary Resources (A.M.R.)

(M1+Time deposits of banks)

III) **Modern Approach:** From April 1977, the RBI has adopted four concepts i.e. M1,M2,M3 & M4.

iv) In June 1998, RBI appointed a working group on money supply to redefine parameters for measuring money supply i.e. M1, M2 & M3

Four Measures of Money Supply in India (1977)

M_1 (Narrow Money)	M_2	M_3 (Broad Money)	M_4
• $M_1 = C + DD + OD$ • C = Currency with the public • DD = demand deposits • OD = other deposits of RBI	• $M_2 = M_1$ + Savings Deposits with Post office Saving Bank	• $M_3 = M_1$ + Time deposits with the banks	• $M_4 = M_3$ + Total Deposits of Post Office savings Organization (excluding NSC)

New Monetary Aggregates (1998)

M_0 (Reserve Money)	M_1 (Narrow Money)	M_2	M_3 (Broad Money)
• M_0 = Currency in circulation + Banker's Deposit with the RBI	• M1 = Currency with the public + DD with Banks other Deposits with the RBI	• M_2 = M_1 + Time liabilities of the saving Deposits with Banks + CD issued by banks + Term Deposits with Banks	• M3= M2 + T.D. with Banks (Maturing over 1 year)+ call /term borrowing of the banking system

New Monetary Aggregates (Liquidity Aggregates)

L_1	L_2	L_3
• New M3 + Total deposits with Post Office saving banks	• L_1 + Term Deposits with Term Leading Institutions and Refinancing Institutions + Term borrowing from Financial Institutions (FI) + Certificates of Deposits issued by (FI)	• L2 + Public Deposits with Non-banking Financial Companies (NBFC)

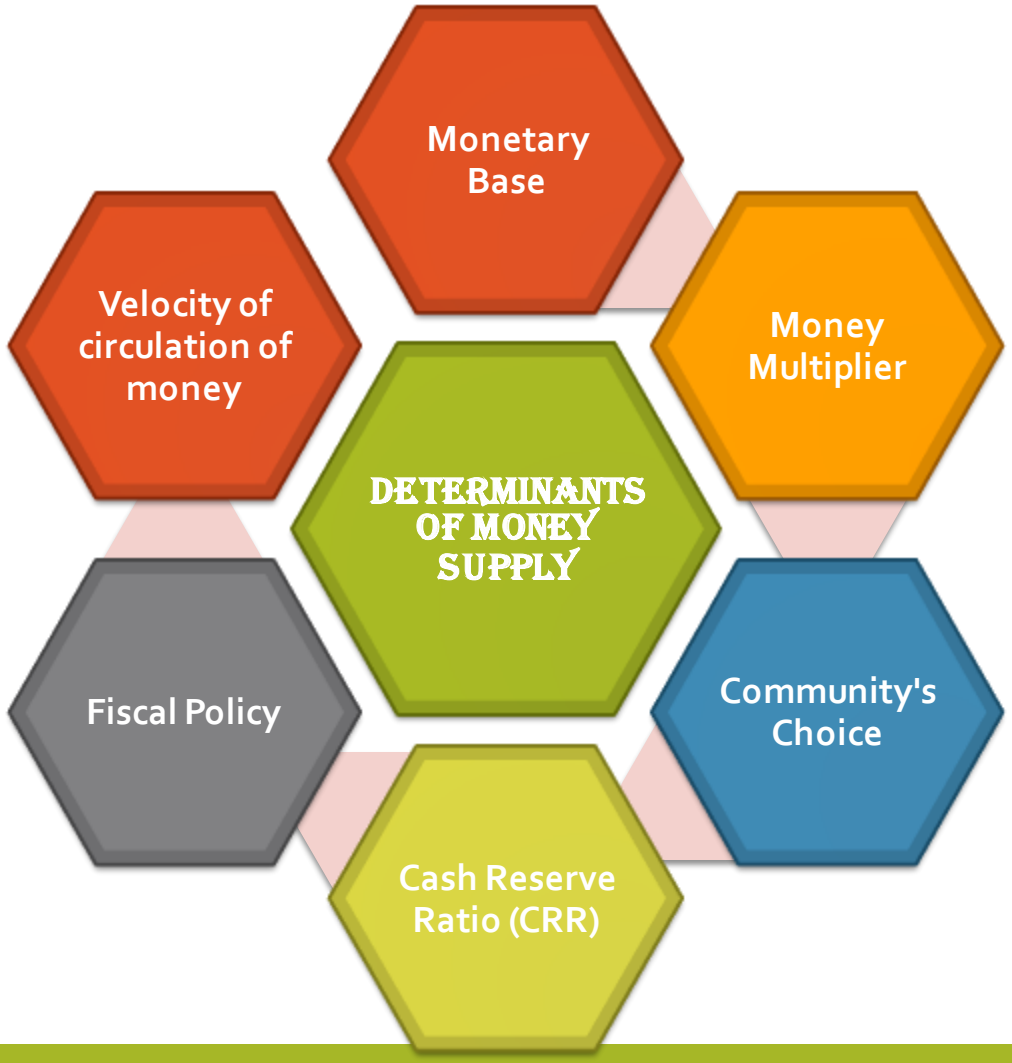
MONETARY AGGREGATES IN INDIA

Original Measures since 1977	Revised Measures 1998	Liquidity Aggregates
M_1 = Currency with public + Demand Deposit with bank + Other deposit with the RBI	M_1 = Currency with public + **DEMAND DEPOSIT WITH BANKS** + Other deposits with RBI	L_1 = New M_3 + Total deposits with Post office saving banks (excluding NSC's)
M_2 = M_1 + saving deposits with the post offices	M_2 = M_1 + **TIME LIABILITIES OF SAVING DEPOSITS WITH BANKS** + Certificate of Deposits issued by banks + Term Deposits maturing within a year	L_2 = L_1 + Term deposits with term lending institution + Term borrowing by Financial institution (FIs) + Certificate of deposits issued by FIs
M_3 = M_1 + Time deposits with the banks	M_3 = M_2 + Term Deposit with banks maturing over one year + call/term borrowing of the banking system	L_3 = L_2 + Public deposit with non-banking finance companies (NBFCs)
M_4 = M_3 + Total deposits with Post offices (excluding NSCs)		

DETERMINANTS OF MONEY SUPPLY

- Cash in circulation and demand deposits are the basic components of money supply. money supply determined by two views:

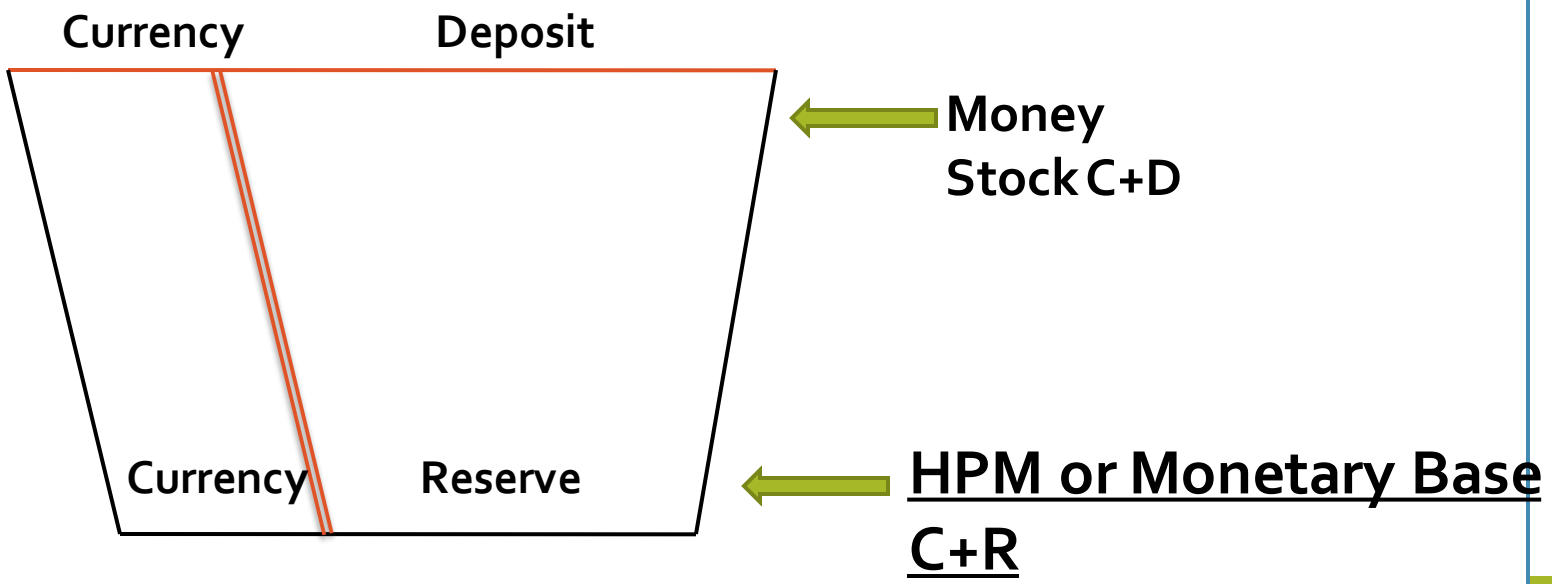
a) **Endogenously** (the changes in the economic activities of money)
b) **Exogenously** (Central bank of a country)



DETERMINANTS OF MONEY SUPPLY

I) High Power Money(H)/ Base Money: Currency + Reserve

- Monetary base plays a crucial role in determining the money supply in a modern economy.
- It consists of certain assets such as Monetary Gold Stock, Reserve Assets, and Central Bank Credit that empower the Central Bank to issue high-powered money (currency money) for use in the economy.



II. MONEY MULTIPLIER

The money multiplier's impact on the money supply is directly linked to its size; an increase in the money multiplier leads to a corresponding rise in the money supply, while a decrease in the money multiplier results in a reduction of the money supply.

- **money multiplier (mm) is determined by currency reserve 'r' of bank & currency deposit ratio 'k'**
- **Currency Deposit Ratio: Currency (Cu) / Deposit(D)**
- **HPM / Cash Reserve Ratio: Cu + R**

40 for every deposit 100
=40 Cu/ 100 D
=0.4

- **mm =** $\dfrac{1 + CDR}{CRR + CDR}$

- **mm =** $\dfrac{1 + 0.4}{0.2 + 0.4}$

mm = 2.33

Total Money Supply= HPM x mm
= 1000x 2.33
= 2330

III) Reserve Ratio (r) :

The cash reserve ratio refers to the ratio of a bank's cash holdings to its total deposit liabilities. It is fixed by the Central Bank. if RBI increases the CRR, less funds will be available with the commercial banks for lending purposes resulting in lower money supply.

The k & r together, determine the mm. (Example k=0.6 & r=0.4)

$$mm = \frac{1 + k}{r + k} = \frac{1 + 0.6}{0.4 + 0.6} = \frac{1.6}{} = 1.6$$

The value of mm depends on k & r. smaller k & r higher mm.

The changes in total money supply is obtained by the product of H & mm

Money supply = H X MM

Example

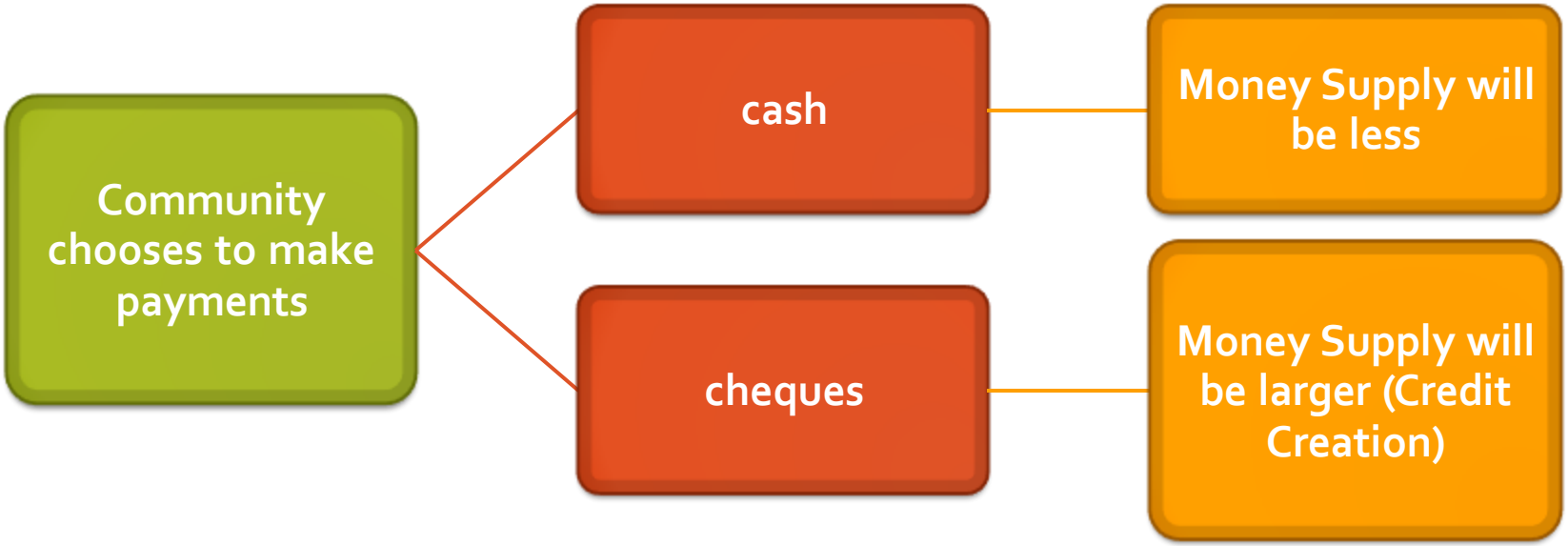
If H is Rs. 10,000 billion and MM is

Total money supply = Rs 10,000 billion x 1.6 = Rs. 16000 billion

III) Other Factors

a) Community Choice

The amounts of cash and demand deposits which the community wishes to hold also determines the money supply.



III) Other Factors

b) Velocity of the Circulation

The money supply is influenced by the velocity of circulation of money. When the velocity of money circulation increases, the money supply also tends to increase, and conversely, if the velocity of money circulation decreases, the money supply decreases as well.

- To find out supply of money over a period of time, we have to consider the velocity of circulation of money

"It is the average number of time money circulates from one hand to another"

i.E

Ms = MV

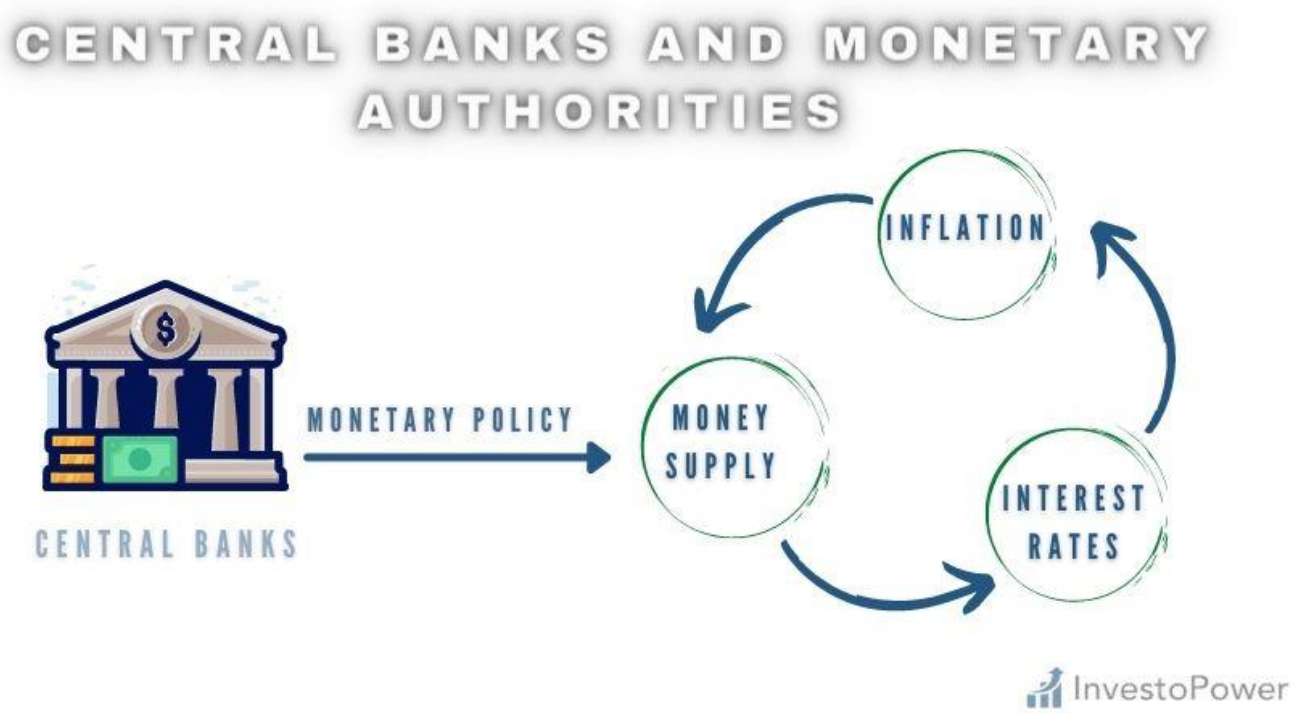
Supply of money during a given period is the total amount of money circulation multiplied by the average number of times it has changed hands during that period

Example: one note of 100 rupee is circulated among 15 people over a week, calculate total money supply at end of the week.

Ans: MV= M x V

c) Monetary policy :

Monetary policy, implemented by the Central Bank, influences the money supply in an economy through both quantitative and qualitative measures. When the Central Bank adopts a cheap money policy, the money supply tends to increase, while adopting a dear money policy leads to a reduction in the money supply.



D) FISCAL POLICY:

Fiscal policy encompasses government actions related to taxation, public expenditure, public borrowing, and deficit financing, all of which have an impact on the money supply in an economy.

a) Taxation: When the government collects taxes, it reduces the money supply in the hands of the public. Higher tax rates lead to a reduction in money supply, whereas lower tax rates or tax exemptions increase the money supply.

b) Public expenditure: An increase in government spending can raise people's income, leading to an expansion of the money supply, and vice versa.

c) Public borrowing: When government spending exceeds its revenue, it relies on public borrowings to cover the fiscal gap. Borrowing from the public decreases the money supply in circulation, but when the borrowed money is spent, it contributes to an increase in the money supply.

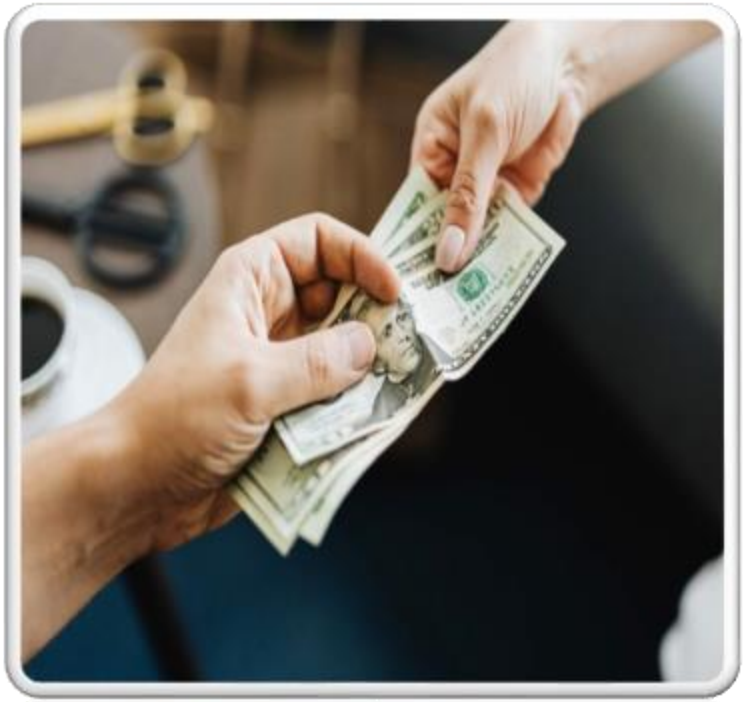
d) Deficit financing: When government expenditure surpasses its revenue, it resorts to borrowing from the central bank (RBI) through deficit financing. This results in an expansion of the money supply, which often leads to inflationary pressures.

e) Budgetary policy: If the government adopts a favorable budgetary policy, it can reduce the money supply. On the other hand, a deficit budget, where expenditures exceed revenue, will increase the money supply available to the public.

END

VELOCITY OF THE CIRCULATION

Quantity Theory of Money can be traced back to scholars like David Hume in the 18th century and later developed by other economists like Irving Fisher and John Stuart Mill. However, it was the work of the famous classical economist David Ricardo in the early 19th century that explicitly introduced the concept of velocity of money in circulation.



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Ans: MV= M x V

= 100 x 15

= 1500

VELOCITY OF THE CIRCULATION

The money supply for a given period is determined by multiplying the total amount of money in circulation by its velocity of circulation.

Several factors influence the velocity of circulation of money, including:

a. The time interval at which income is received, whether it's daily, weekly, or monthly, affects the velocity. **More frequent income receipts** lead to **higher velocity**, while less frequent ones result in lower velocity.

b. The method and habits of payment also impact the velocity. **Making payments in installments increases the velocity,** while lump-sum payments decrease it.

c. The **regularity of income receipts** affects the velocity. People with stable and regular incomes tend to spend more freely, leading to higher velocity, whereas irregular income receipts cause people to hold more cash balances, resulting in lower velocity.

d. The distribution of national income plays a role in the velocity. The wealthy, **with more cash holdings, tend to have lower velocity**, while the poor, with smaller cash balances, exhibit higher velocity. Higher income inequality leads to lower velocity of money in circulation.

VELOCITY OF THE CIRCULATION

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Several factors influence the velocity of circulation of money, including:

e. **Business conditions** also influence the velocity. During **prosperous and flourishing times, the velocity is high** due to rapid transactions, while during a slack season, the velocity decreases.

f. The development of the **banking and financial system** affects the velocity. In advanced societies with well-developed institutions, velocity is higher, while in backward societies, it's lower due to hoarding tendencies and lack of investment opportunities.

g. Changes in the **price level influence the velocity**. Inflation leads to higher velocity as people rush to purchase immediately, while deflation results in lower velocity as they reduce their purchases.

h. The **speed of transportation of money** also determines velocity. Faster remittance facilities provided by banks increase the velocity of money circulation.

END