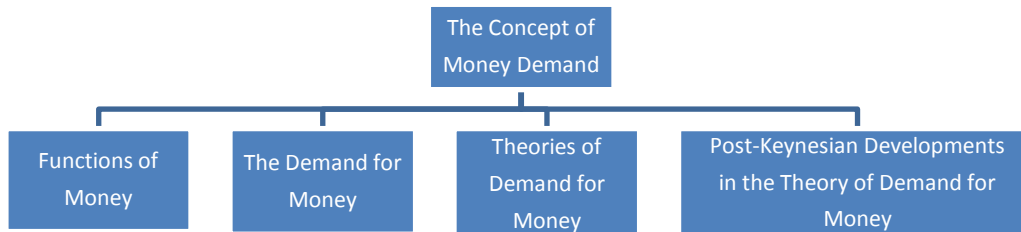


MONEY MARKET

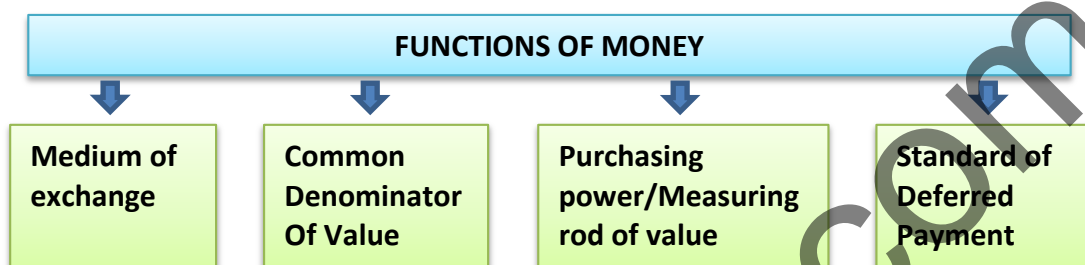
- **THE CONCEPT OF MONEY DEMAND**
- **THE CONCEPT OF MONEY SUPPLY**
- **MONETARY POLICY**

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MONEY

Money is at the centre of every economic transaction and plays a significant role in all economies. In simple terms money refers to assets which are commonly used and accepted as a means of payment or as a medium of exchange or of transferring purchasing power. For policy purposes, money may be defined as the set of liquid financial assets, the variation in the stock of which will have impact on aggregate economic activity.



CHARACTERISTICS OF MONEY

- Generally acceptable
- Durable or long-lasting
- Effortlessly recognizable.
- Difficult to counterfeit i.e. not easily reproducible by people
- Relatively scarce, but has elasticity of supply
- Portable or easily transported
- Possessing uniformity; and
- Divisible into smaller parts in usable quantities or fractions without losing value

THEORIES OF DEMAND FOR MONEY

Classical Approach: The Quantity Theory of Money (QTM)

$$MV = PT$$

Where,

M = the total amount of money in circulation (on an average) in an economy

V = transactions velocity of circulation i.e. the average number of times across all transactions a unit of money (say Rupee) is spent in purchasing goods and services

P = average price level ($P = MV/T$)

T = the total number of transactions.

Later, Fisher extended the equation of exchange to include demand (bank) deposits (M') and their velocity (V') in the total supply of money.

Thus, the expanded form of the equation of exchange becomes:

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

Where

M' = the total quantity of credit money

V' = velocity of circulation of credit money

The Neo classical Approach: The Cambridge approach

$$M^d = k PY$$

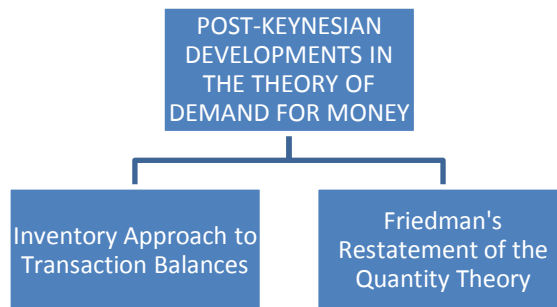
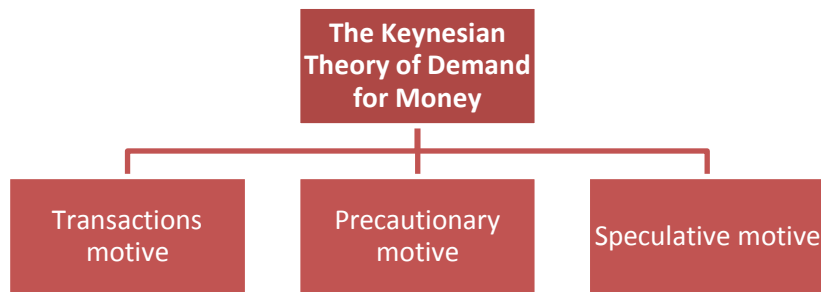
M^d = is the demand for money

Y = real national income

P = average price level of currently produced goods and services
 PY = nominal income

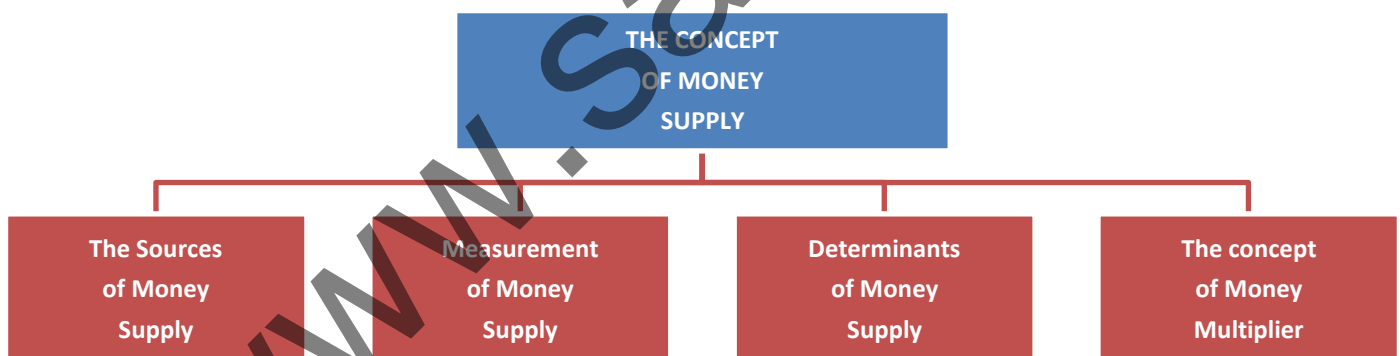
k = proportion of nominal income (PY) that people want to hold as cash balances

The term 'k' in the above equation is called 'Cambridge k'. The equation above explains that the demand for money (M) equals k proportion of the total money income.



The Demand for Money as Behavior toward Risk

- (i) The risk/reward characteristics of different assets
- (ii) The taste of the individual in maximizing his utility consistent with the existing opportunities
 - The rate of return on holding money was more certain than the rate of return on holding interest earning assets
 - It is riskier to hold alternative assets vis-à-vis holding interest just money alone because government bonds and equities are market price volatility
 - Money is not risky
 - The expected rate of return from the alternative financial assets exceeds that of money



THE SOURCES OF MONEY SUPPLY

(a) The decision of the central bank based on the authority conferred on it.

- Primary source of money supply in all countries
- The currency issued by the central bank is 'fiat money'
- Its value is guaranteed by the government
- A liability of the central bank and the government.
- It must be backed by an equal value of assets mainly consisting of gold and foreign exchange reserves.
- Only a certain minimum reserve of gold and foreign securities must be used

(b) The supply responses of the **commercial banking system** of the country to the changes in policy variables initiated by the central bank to influence the total money supply in the economy.

MEASUREMENT OF MONEY SUPPLY

M_1 = Currency notes and coins with the people + demand deposits of banks (Current and Saving deposit accounts) + other deposits of the RBI. (The most Liquid)

M_2 = M_1 + savings deposits with post office savings banks.

M_3 = M_1 + net time deposits with the banking system.

M_4 = M_3 + total deposits with the Post Office Savings Organization (excluding National Savings Certificates).

Reserve Money = Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI

= Net RBI credit to the Government + RBI credit to the Commercial sector + RBI's Claims on banks + RBI's net Foreign assets + Government's Currency liabilities to the public – RBI's net non - monetary Liabilities

NM1 = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI.

NM2 = NM1 + Short-term time deposits of residents (including and up to contractual maturity of one year).

NM3 = NM2 + Long-term time deposits of residents + Call/Term funding from financial institutions

L1 = NM3 + All deposits with the post office savings banks (excluding National Savings Certificates).

L2 = L1 + Term deposits with term lending institutions and refinancing institutions (FIs) + Term borrowing by FIs + Certificates of deposit issued by FIs.

L3 = L2 + Public deposits of non-banking financial companies

THE MONEY MULTIPLIER APPROACH TO SUPPLY OF MONEY

(a) The stock of high-powered money (H)

(b) The ratio of reserves to deposits, $e = \{ER/D\}$ and

(c) The ratio of currency to deposits, $c = \{C/D\}$

THE BEHAVIOUR OF THE CENTRAL BANK ◆

- The behaviour of the central bank is reflected in the supply of the nominal high-powered money.
- Money stock is determined by the money multiplier which is controlled by Central Bank
- the total supply of nominal money will vary directly with the supply of the nominal high-powered money

THE BEHAVIOUR OF COMMERCIAL BANKS

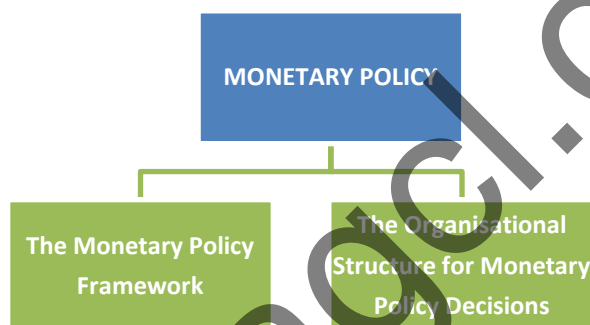
- Reflects in the ratio of their cash reserves to deposits known as the 'reserve ratio'.
- Money supply will increase if reserve ratio falls.
- Money supply will fall if reserve ratio increase.
- The actual reserves ratio is greater than the required reserve ratio
- Excess reserves has no effects on money supply

THE BEHAVIOUR OF THE PUBLIC

- The behavior of the public influences bank credit as the currency ratios.
- Increase in currency holdings will lead to:
 - Multiple expansion declines
 - Multiplier also falls
- The currency deposits ratio will lead to growth of GDP.

THE CREDIT MULTIPLIER/ DEPOSIT MULTIPLIER / DEPOSIT EXPANSION MULTIPLIER

- Inextricably tied to the bank's reserve requirement.
- It reflects a bank's ability to increase the money supply.
- The credit multiplier is the reciprocal of the required reserve ratio. If reserve ratio is 20%, then credit multiplier = $1/0.20 = 5$.
- Credit multiplier = $\frac{1}{\text{Required Reserve Ratio}}$
- It is outcome of fractional reserve banking.



THE OBJECTIVES OF MONETARY POLICY

- Price stability.
- Rapid economic growth
- Debt management
- Moderate long-term interest rates
- Exchange rate stability
- External balance of payments equilibrium
- Maintenance the economic growth
- Ensuring an adequate flow of credit to the productive sectors
- Sustaining - a moderate structure of interest rates to encourage investments
- Creation of an efficient market for government securities

ANALYTICS OF MONETARY POLICY

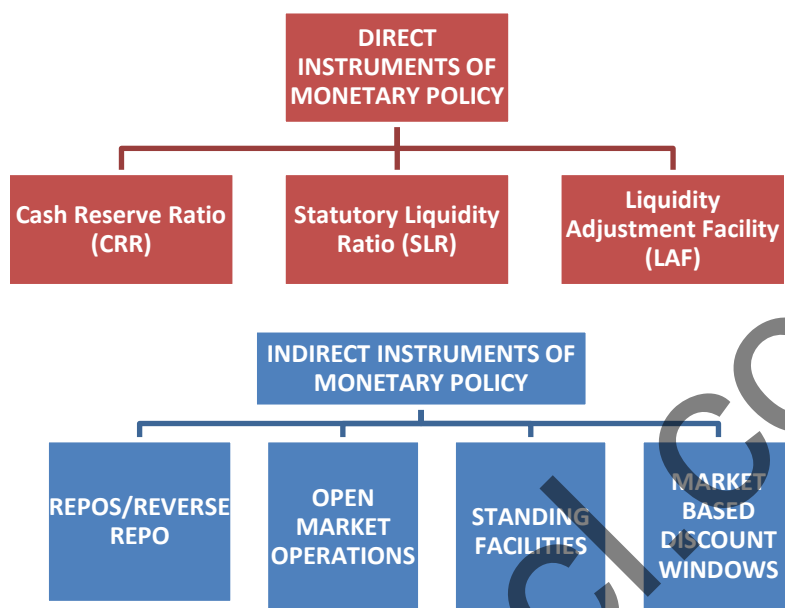
There are mainly four different mechanisms through which monetary policy influences the price level and the national income. These are:

- (a) The interest rate channel,
- (b) The exchange rate channel,
- (c) The quantum channel (e.g., relating to money supply and credit), and
- (d) The asset price channel i.e. via equity and real estate prices.

OPERATING PROCEDURES AND INSTRUMENTS

The operating framework relates to all aspects of implementation of monetary policy. It primarily involves three major aspects, namely,

- (i) Choosing the operating target,
- (ii) Choosing the intermediate target, and
- (iii) Choosing the policy instruments.



THE ORGANISATIONAL STRUCTURE FOR MONETARY POLICY DECISIONS

The Role of Monetary Policy Committee (MPC)

- Diversity of views
- Specialized experience
- Independence of opinion
- Representativeness
- Accountability
 - The Reserve Bank's Monetary Policy Department (MPD) assists the MPC
 - Helps at the decision on the policy repo rate.
 - The Financial Markets Operations Department (FMOD) operationalizes the monetary policy
 - The Financial Markets Committee (FMC) meets daily to review the liquidity conditions