Theories of Determination of Interest Rate

Interest Rate

As all the other prices are determined in different markets, the equilibrium rate of interest is also determined by the forces of supply and demand in the financial markets.

Theories

- The Classical Theory,
- The Loanable Funds Theory
- The Keynesian Theory

Classical Theory

- The rate of interest is a real phenomenon in the sense that it is determined by the real factors
- It is the supply of savings and the demand for investment that determine the equilibrium rate of interest.

Supply of Savings

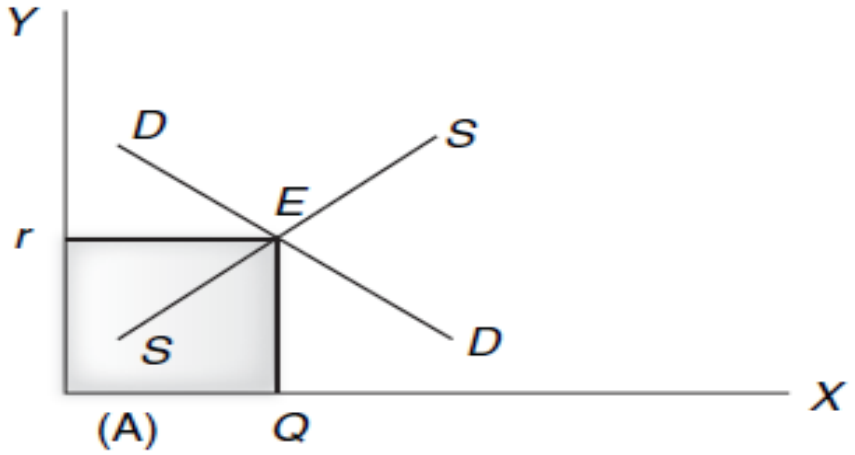
- The aggregate saving is the difference between the total national income and the total consumption expenditure.
- The savings may be effected by individuals, households, business, and the government.
- From savings point of view interest rate is a reward for sacrifice or abstinence or waiting involved in the act of supplying savings

Demand for Investment

- Firms and other economic units demand capital to make profits by producing goods
- The investment takes place because by investing in roundabout or indirect methods or processes of production, economic units expect to obtain more consumption in future by sacrificing present consumption.
- The opportunities to produce more effectively by using roundabout methods of production determine investment demand.

Interest Rate Determination

- While the saving schedule is upward sloping, the investment schedule is downward sloping.
- The equilibrium rate of interest is determined by the interaction of these saving and investment schedules in the economy



Loanable Fund Theory

- According to this theory, rate of interest is determined by the demand for and supply of loanable funds.
- In this regard this theory is more realistic and broader than the classical theory of interest
- The loanable funds theory discards the independence of the interest rate from the behaviour of money and banks.
- According to this theory, the real supply and demand curves determining interest rates should have added to them a component of the supply of saving which is associated with the creation of new money or credit

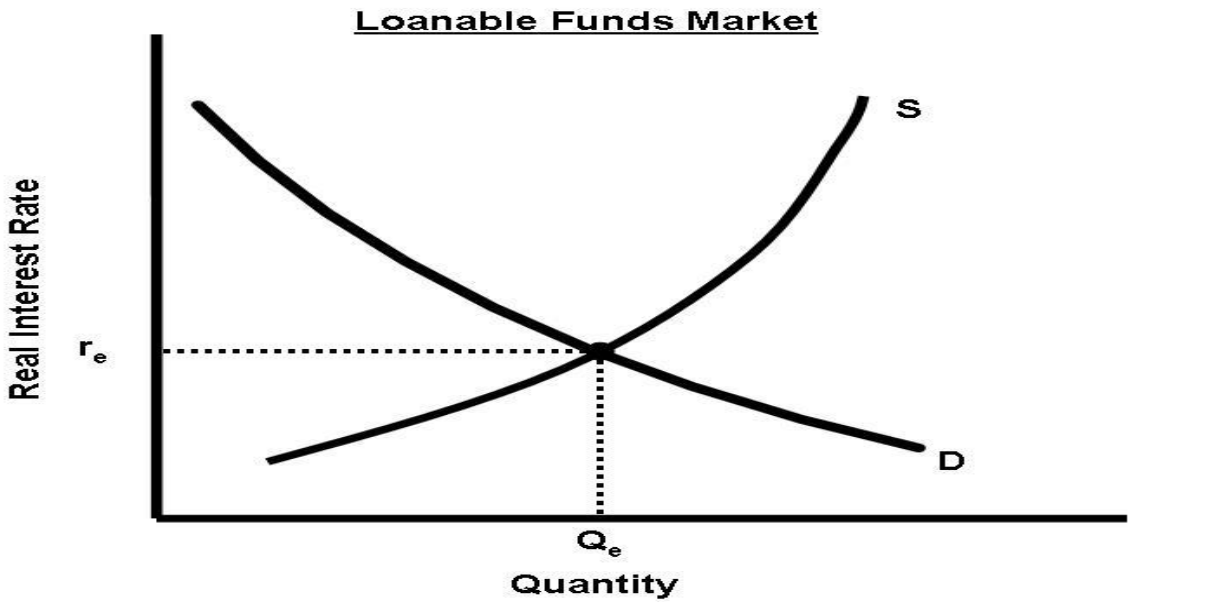
Demand for Loanable Funds

- **Investments**
  - Investment refers to the expenditure for the purchase of making of new capital goods including inventories
  - There is an inverse relationship between the demands for loanable funds for investment to the rate of interest
- **Hoarding**
  - To satisfy their desire for liquidity.
  - The demand for loanable funds for hoarding purpose is a decreasing function of the rate of interest.
  - At low rate of interest demand for loanable funds for hoarding will be more and vice-versa
- **Dissaving**
  - This demand comes from the people at that time when they want to spend beyond their current income
  - It is also a decreasing function of interest rate

Supply of Loanable Funds

- **Savings**
  - Individuals as well as business firms will save more at a higher rate of interest and vice-versa
- **Bank Money**
  - The banks advance loans to the businessmen through the process of credit creation. The money created by the banks adds to the supply of loanable funds.
- **Disinvestment**
  - Disinvestment occurs when the existing stock of capital is allowed to wear out without being replaced by new capital equipment.
  - High rate of interest leads to higher disinvestment
- **Dishoarding**
  - Individuals may dishoard money from the past hoardings at a higher rate of interest
  - If the rate of interest is low dishoarding would be negligible

Interest Rate Determination



Equilibrium exists where the demand curve intersects supply.

Keynesian Theory

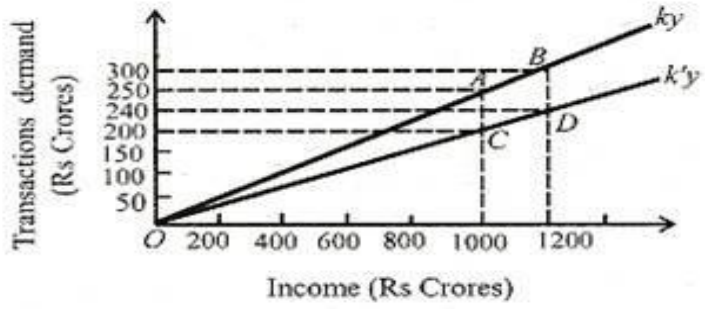
- According to Keynes, interest rate is a purely monetary phenomenon. This means that the rate of interest, at least in the short-run, is determined by the monetary factors, i.e., it depends on the actions of the monetary authorities (the Central Bank and the Government), and on the attitude of economic units towards holding money as an alternative to holding bonds.
- In other words, interest rate is determined by the interaction between the supply of money and demand for it in the economic system.

Motives for Demand for Money

- The demand to hold money is called the "liquidity preference".
- There are three motives or reasons behind the demand for liquidity or liquidity preference of individuals, firms, and institutions: (a) transactions motive, (b) precautionary motive, and (c) speculative motive.

Transactions Demand for Money

- Amount of money which consumers need for transactions purpose mostly for buying and selling of goods and services
- Factors affecting transactions demand for money:
  - Income, spending habits, time interval after which income is received, banking developments, Industrial structure
  - **Income**
    - Let transactions demand for money is: MT = f (Y), where, MT= Transactions demand for money, Y = Income
    - It can be written: MT = KY, where 0<K<1
    - The slope of the transactions demand for money is positively sloped, dMT/dY >0



Transactions Demand for Money Cont…

- Frequency of income receipt i.e. the length of time period which elapses between the receipt of money income and its disbursement
  - Shorter the pay period, smaller will be the amount of money required for the transaction purpose
- Banking developments
  - Alternative modes of payment declines MT
- Industrial structure
  - Vertical integration declines the MT

Precautionary Demand for Money (MP)

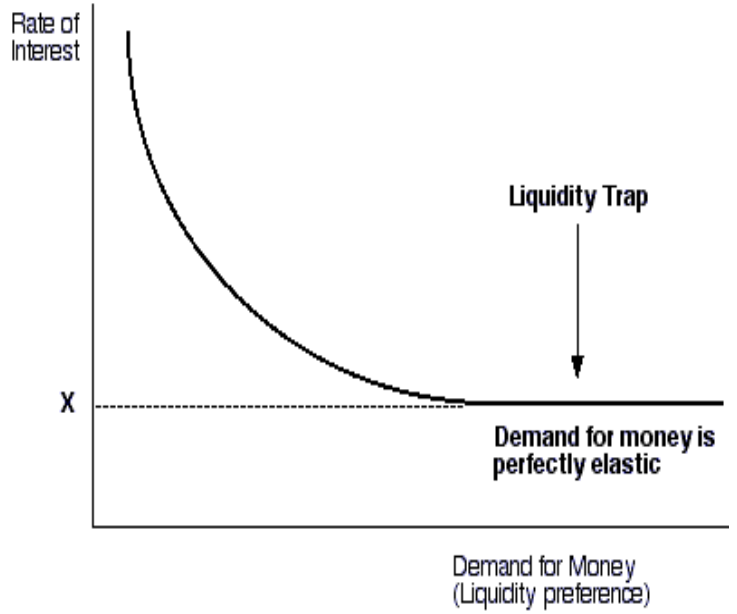
- Money demanded to meet unforeseen contingencies
- Factors affecting precautionary demand for money are:
  - Nature of business
  - Access to money market
  - Degree of conservatism
  - Degree of liquidity of the assets
  - Income
- MP = f(Y)

Speculative Demand for Money (MSP)

- Amount of money people hold for making speculations in the financial markets
- There is an inverse relationship between interest rates and the speculative demand for money
- Relationship between interest rate and speculative demand for money is called the Liquidity Preference Curve
- Interest elasticity of speculative demand for money increases as the interest rate declines
- The MSP= f(r), where r = interest rate

Liquidity Trap

- The rate of interest at which the speculative demand for money becomes perfectly elastic is called liquidity trap
- At the liquidity trap interest rate, the wealth holders hold their entire wealth in the form of money instead of holding the interest bearing bonds
- At the liquidity trap rate of interest, money becomes perfect substitute for bonds



Total Demand for Money (TMD)

- TMD = MT + MP + MSP
- As MP is also a function of Y we can combine MT and MP
- Now TMD = f (Y) + f (r)

Interest Rate Determination

In this theory money supply is exogenously determined, i.e., it is determined by the monetary authorities