



**JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR**

Government of Rajasthan established

[Through ACT No. 17 of 2008 as per UGC ACT 1956](#)

[NAAC Accredited University](#)

**Faculty of Education and Methodology**

**Faculty Name-** JV'n Dr. Md Meraj Alam

**Program-** BA (Hons) Economics 2nd Semester

**Course – Macroeconomics II**

**Digital session name – Liquidity Preference Theory of Interest - I**

**Introduction:**

Keynes, in his book, General Theory of Employment, Interest and Money, has developed a monetary theory of interest as opposed to the classical real theory of interest.

**It is referred to as a monetary theory because of the following reasons:**

- (a) According to Keynes, interest, which is a payment for the use of money, is a monetary phenomenon,
- (b) Rate of interest is calculated in terms of money,
- (c) In this theory, rate of interest is determined by the demand and supply of money,
- (d) According to this theory, the rate of interest can be controlled by the monetary authority.

Keynes' theory of interest is known as liquidity preference theory of interest. Interest has been defined as the reward for parting with liquidity for a specified period. Money is the most liquid asset and people generally have liquidity preference, i. e., a preference for holding their wealth in the form of cash rather than in the form of interest or other income yielding assets.

They can be persuaded to give up some part of their cash if adequate reward is offered. This reward is paid in the form of interest. Thus, interest is the reward for inducing people to part

with liquidity. The stronger the desire for liquidity, the higher the rate of interest and weaker the desire for liquidity, the lower the rate of interest.

The reason for liquidity preference or holding wealth in cash is that future is uncertain and full of risks and cash provides protection against future risk and uncertainties. The desire to hold cash measures the extent of our distrust of our own calculations concerning future.

As Keynes writes, “The possession of actual money lulls our disquietude; and the premium which we require to make us part with money is a measure of the degree of our disquietude.” Thus Keynes, in his analysis, lays greater emphasis on the store-of-value function of money as against the exclusive emphasis of the classical economists on the medium-of-exchange function of money.

Rate of interest, like the price of any other commodity, is determined by the demand and supply of money. On the demand side, the rate of interest is governed by the liquidity preference of the community and on the supply side, it is controlled by the total stock of money as fixed by the monetary authority.

### **Demand for Money:**

Demand for money means the desire of the people to hold their wealth in liquid form (i.e., to hold cash). People have desire for liquidity (i.e., the liquidity preference or to desire to hoard money) and interest is reward for parting with liquidity. The emphasis in Keynes’ theory is on the desire for liquidity and not on the actual liquidity.

### **Keynes identified three motives for the demand for money or the liquidity preference:**

- (a) The transactions motive,
- (b) The precautionary motive and
- (c) The speculative motive.

### **For Keynes, the total demand for money implies total cash balances and total cash balances may be classified into two categories:**

- (a) Active cash balance-consisting of transactions demand for money and precautionary demand for money; and
- (b) Idle cash balances – consisting of speculative demand for money.

### **1. Transactions Motive:**

Money being a medium of exchange, the primary demand for money arises for making day-to-day transactions. In daily life, the individual or business income and expenditures are not

perfectly synchronised. People receive income in periods that do not correspond to the times they want to spend it. Thus, certain amount of money is needed by the people in order to carry out their frequent transactions smoothly.

The demand for money for transactions motive mainly depends on the size of money income; the higher the level of money income, the greater the demand for transactions motive and vice versa. The transactions demand for money is not influenced by the rate of interest; it is interest-inelastic.

**Symbolically, the transactions demand for money can be stated to be function of money income:**

$$L_t = k_t (Y)$$

where,  $L_t$  represents the transactions demand for money,  $k_t$  represents the fraction of money income society desires to hold in cash, and  $Y$  represents money income.

## **2. Precautionary Motive:**

Apart from transactions motive, people hold additional amount of cash in order to meet emergencies and unexpected contingencies, such as, sickness, accidents, unemployment, etc. For the households, unexpected economic circumstances affect their decision to keep money for precautionary motive. For businessmen, the expectations regarding the future prosperity and depression influence the precautionary demand for money. The precautionary demand for money depends upon the uncertainty of the future.

According to Keynes, the precautionary demand for money ( $L_p$ ), like the transactions demand ( $L_t$ ), is also a constant ( $k_p$ ) function of the level of money income ( $Y$ ), and is insensitive to the changes in the rate of interest-

$$L_p = k_p (Y)$$

Keynes lumps the transactions and the precautionary demands for money together on the ground that both are fairly stable functions of income and both are interest-inelastic. Thus, the demand for active balances ( $L_1 = L_t + L_p$ ) is a constant ( $k = k_t + k_p$ ) function of income ( $Y$ ) and can be symbolically written as-

$$L_1 = L_t + L_p = k_t (Y) + k_p (Y) = k (Y)$$

## **3. Speculative Motive:**

Speculative demand for money refers to the demand for holding certain amount of cash in reserve to make speculative gains out of the purchase and sale of bonds and securities through future changes in the rate of interest. Demand for speculative motive is essentially related with the rate of interest and bond prices.

There is an inverse relationship between the rate of interest and the bond prices. For example, a bond with the price of Rs. 100 yields a fixed amount of Rs. 3 at 3% rate of interest. If the rate of interest rises to 4% the price of the bond must fall to Rs. 75 to yield the same fixed income of Rs. 3.

People desire to have money in order to take advantage from knowing better than others about the future changes in the rate of interest (or bond prices). If people feel that the current rate of interest is low (or bond prices are high) and it is expected to rise in future (or bond prices will fall in future), then they will borrow money at a lower rate of interest (or sell their already purchased bonds), and keep cash in hand with a view to lend it in future at a higher rate of interest (or to purchase the bonds at cheaper rates in future).

Thus, the demand for money for speculative motive will rise. Similarly, if people feel that in future the rate of interest is going to fall (or bond prices going to rise), they will reduce the demand for money meant for speculative purpose.

The demand for money for speculative motive ( $L_2$ ) is highly sensitive to and is a negative function of the rate of interest ( $i$ ); as the current rate of interest rises, the demand for money for speculative motive decreases and vice versa.

**Symbolically, the speculative demand for money is expressed as:**

$$L_2 = f(i)$$

### **Total Demand for Money:**

The community's total demand for money ( $L$ ) consists of – (a) the demand for active balances, i.e., the transactions demand for money, plus the precautionary demand for money ( $L_t = L_t + L_p$ ), (b) the idle balances, i.e., the speculative demand for money ( $L_2$ ). Thus, all the three motives together give the total demand for money Thus,

$$L = L_1 + L_2$$

The demand for transactions and precautionary motives, which is more or less stable, depend upon the level of income and is interest-inelastic ( $L_1 = k(Y)$ ). The demand for speculative

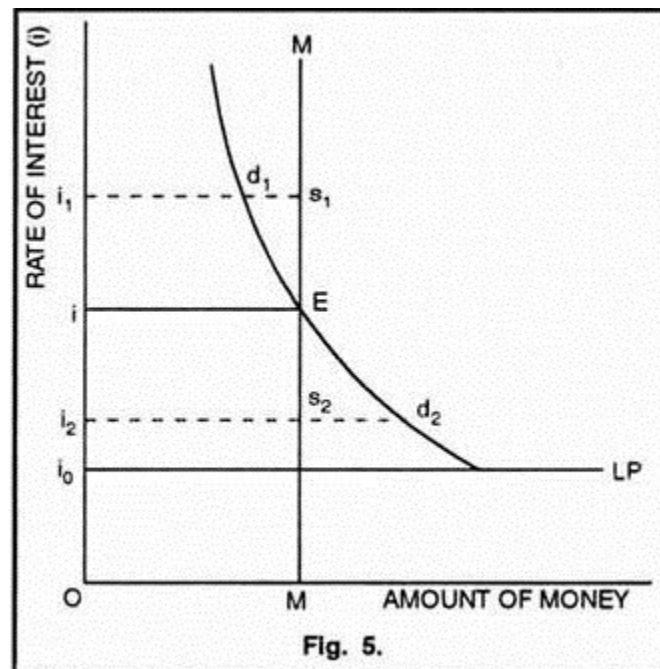
motive is a function of rate of interest and an inverse relationship exists between the two ( $L_2 = f(i)$ ).

**Thus, the community's total demand for money depends upon the level of income and the rate of interest:**

$$L = L_1 + L_2 = k(Y) + f(i)$$

### **Liquidity Preference Schedule:**

The liquidity preference schedule or demand for money curve expresses the functional relationship between the amount of money demanded for all the three motives and the rate of interest. Given the level of income, the demand for money and the current rate of interest are inversely related; as the rate of interest falls, the demand for money increases. This relationship is shown by the downward sloping LP schedule in Figure 5.



Source: Internet

An important feature of the LP schedule is that if the rate of interest falls to a very low level (say  $i_0$ ), the LP schedule becomes perfectly elastic. It means that at this extremely low rate of interest, people have no desire to lend money and will keep the whole money with them. It further implies that the rate of interest cannot be lowered any more. This feature of the liquidity preference schedule has been called the 'liquidity trap'.

### **Supply of Money:**

Supply of money refers to the total quantity of money in the country for all purposes at a particular time. The supply of money is different from the supply of commodities; while the supply of commodities is a flow, the supply of money is a stock. Unlike the demand for money, the supply of money is determined and controlled by the government or the monetary authority of the country and is interest-inelastic (as shown by the vertical line MM in Figure 5). It is influenced by political and not by economic factors.

### **Determination of Rate of Interest:**

The equilibrium rate of interest is determined by the intersection of the demand for money function and the supply of money function. In Figure 5, LP curve represents demand for money and MM curve represents supply of money. Both the curves intersect at point E which indicates that  $O_i$  is the equilibrium rate of interest. Any deviation from this equilibrium rate of interest will be unstable. For example, at a higher rate of interest  $O_{i1}$ , demand for money will be less than the supply of money ( $i_1 d_1 < i_1 s_1$ ).

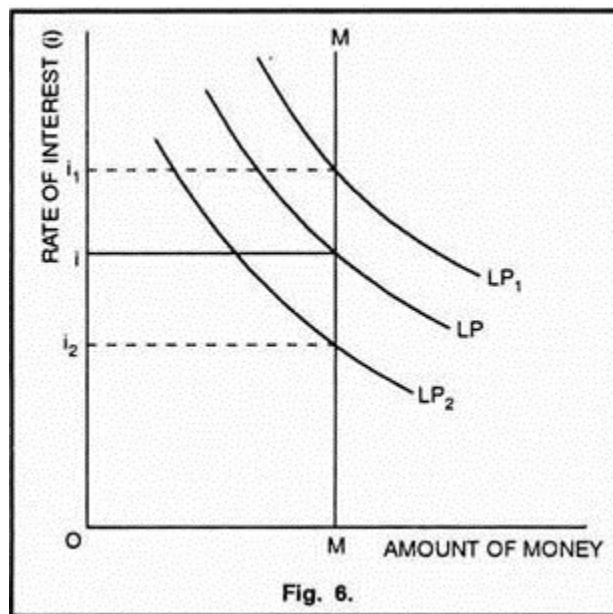
This will cause the rate of interest to fall back to its equilibrium level ( $O_i$ ). Similarly, at a lower rate of interest  $O_{i2}$ , the demand for money will be more than the supply of money ( $i_2 d_2 > i_2 s_2$ ). This will cause the rate of interest to rise and reach its equilibrium position. Thus, the equilibrium rate of interest is determined at the level where demand for and supply of money are equal to each other.

### **Changes in Demand for and Supply of Money:**

Changes in the demand for money and the supply of money lead to corresponding changes in the rate of interest. Figures 6 and 7 illustrate the influence of changes in demand for and supply of money on the rate of interest.

#### **Changes in Demand for Money:**

Figure 6 shows that given the supply of money (MM curve), as the demand for money increases (shift from LP to  $LP_1$ ), the rate of interest rises (from  $O_i$  to  $O_{i1}$ ) and as the demand for money decreases (shift from LP to  $LP_2$ ), the rate of interest falls (from  $O_i$  to  $O_{i2}$ ). Shifts in the demand for money function (LP curve) are caused by the changes in the level of income. With an increase in the level of income, the demand for money curve shifts upwards (e.g. LP to  $LP_1$  in Figure 6) and with a decrease in the income level the demand for money curve shifts downward (e.g. LP to  $LP_2$  in Figure 6).



Source: Internet

### Changes in Supply of Money:

Figure 7 shows that given the demand for money (LP curve), as the supply of money decreases (shift from MM to  $M_1M_1$ ), the rate of interest rises (from  $O_i$  to  $O_{i_1}$ ) and as the supply of money increases (shift from MM to  $M_2M_2$ ), the rate of interest falls (from  $O_i$  to  $O_{i_2}$ ). But further increase in money supply (e.g. from  $M_2M_2$  to  $M_3M_3$ ) will not reduce the rate of interest anymore because of liquidity trap.

This fact has a great practical significance. By increasing money supply, the monetary authorities can reduce the rate of interest and thus encourage investment. But there is always a limit (set by the liquidity trap) to this cheap money policy.

### To sum up Keynes's theory of interest:

- Interest is a monetary phenomenon and the rate of interest is determined by the intersection of demand for money and supply of money;
- Given the supply of money, the rate of interest rises as the demand for money increases and falls as the demand for money decreases,
- Given the demand for money, the rate of interest falls as the supply of money increases and rises as the supply of money decreases,
- The rate of interest cannot be reduced beyond the lower limit set by the liquidity trap.