

# Interest

## Meaning of Interest

The reward for capital is known as interest. The owner of the capital receives interest for lending his/her capital to others. Capital can be classified into two types – fixed capital and variable capital. In fact, when we say capital, it includes both fixed and variable capital. However, interest is the income earned only on the variable capital. Interest is earned only on that portion of capital which is given by the owner to the borrower. In other words, it is the price paid by the borrower to the lender who parted with his money.

Why do people get paid for lending their money? Money in the form of cash provides the holder with benefit because it enables him to buy anything that he desires. However, if an individual lends it to another person, then he will have to wait until he gets back his money and only then he can utilize it. Therefore, the individual is paid as a reward for parting with his money for a specific period of time. The price which is paid to the lender for parting with his money is known as 'interest'.

According to John Maynard Keynes, "Interest is a reward for parting with liquidity for a specified period."

## Basic Concepts

### Gross interest

When the borrower pays an amount to the lender for borrowing the lender's money, the amount so paid by the borrower is known as 'interest'. Therefore, when people refer to interest, they generally refer to 'gross interest'. Gross interest is the total amount paid by the borrower to the lender of the money.

### Net interest

Net interest is the amount paid to 'capitalists' only for the use of 'capital'. It is the reward paid to the capitalists exclusively for the use of capital. Net interest is the compensation for lending capital to others under conditions where there is no risk or inconvenience due to investment (investments made with no savings motive) and the lender is not required to perform any work other than lending his money. Therefore, net interest is a part of the gross interest. Gross interest consists of some charges along with the net interest.

Gross Interest = Price of the Capital (Net Interest) + Reward for taking risk of money lending + Reward for management of loan + Others (such as the reward for accepting the inconveniences involved in money lending)

Gross interest thus includes compensation for loan of capital, compensation to cover risk of loss (either business risk or personal risk), compensation for inconvenience of investment, compensation for work and apprehension related to monitoring

## **THEORY OF RATE OF INTEREST**

### **Liquidity Preference Theory of Interest**

John Maynard Keynes (Keynes) propounded the 'liquidity preference theory of interest'. His theory is based upon the belief that people prefer absolute liquidity (cash) to other forms of wealth in the short run. Keynes criticized the classical theory of rate of interest on the grounds that they combined real and monetary factors together. According to Keynes, the rate of interest is purely a monetary phenomenon. He said that determination of interest, thus, is dependent upon the demand for and supply of money in the economy. Keynes proposed that interest is equilibrium between the demand for and supply of money.

Keynes defined interest as, "the reward for parting with liquidity for a specified period." He condemned the classical view that interest is the reward for 'saving' or for 'waiting'. Keynes opined that a person who lends money gets the reward called 'interest' for parting with 'liquid money'. Keynes explains, "the rate of interest is the premium which is to be offered to induce the people to hold wealth in some form other than hoarded money." According to him, interest is the incentive that drives money lenders to part with their money and lend it to people.

What is liquidity preference? Why do people prefer cash to other forms of money such as deposits, debentures and securities, gold, buildings, bonds, etc? The reason is while cash enables us to purchase anything that we desire, the other forms of money are not easily convertible. In other words, they do not have the same level of liquidity as cash. The liquidity feature of money empowers us with 'purchasing power', hence, the preference for cash to other forms of money. People's fondness for cash or liquid money is called as 'liquidity preference'.

Why do people prefer liquidity? According to Keynes, people prefer liquidity to other forms of money because they want to satisfy the three kinds of motives:

- Transaction motive
- Precautionary motive
- Speculative motive

#### **Transaction motive**

When people demand for liquid money to carry out their day-to-day transactions, the demand for such liquidity is known as 'transaction motive'. For example, people need money to travel from one place to another, to buy goods and services, etc. For this, they are required to stock some amount of cash with them. So, when people require cash to complete their economic transactions, the motive behind the demand for such cash is known as transaction motive. The transaction motive of people is dependent upon the following factors:

- A rich man's demand for cash for economic transactions is higher than the demand for cash for economic transactions of a poor man. Hence, the transaction motive differs with the income earned by the individuals.

• If a person is paid daily wages, then his demand for cash (to fulfill the daily transactions) will be lower than the person who receives income once in a month. Therefore, the time period between the successive receipts of income also influences the transaction motive of people.

### **Precautionary motive**

Since people are uncertain about their future, they prefer to save money with a view to safeguard their future. People attempt to meet contingencies and unforeseen circumstances that may happen in the future by saving. Hence, the demand for liquidity to safeguard their future is known as the 'precautionary motive'. The precautionary motive behind the demand for liquidity is dependent on the following:

- If the size of the income levels of an individual is huge, then he has the capacity to have a higher preference for liquidity and therefore demands higher cash to protect his/her future. Similarly, an individual with comparatively lower level of income would not demand for higher cash to safeguard his/her future because he/she will be more concerned about satisfying the basic necessities of life. Hence, income levels of people impacts precautionary demand for liquidity to a great extent.
- Some people are optimistic about their future, while others are pessimistic. Optimistic people anticipate lesser risk in the future when compared to pessimistic people. Hence, optimistic people tend to save less as they visualize fewer uncertainties in the future. Therefore, their demand for liquidity for meeting unforeseen circumstances will be lesser when compared to pessimistic people. Hence, the nature of people also determines their precautionary demand for liquidity.

### **Speculative motive**

This is the most important motive behind the demand for liquidity. The motive for stocking cash here is to take advantage of the changes in the price levels of securities and bonds. If people anticipate that the prices of securities will go up in the future, then they prefer to purchase securities now. In such a situation, the liquidity preference of people will be low because they like to spend cash and purchase securities (with a view to gain profit in the future). On the other hand, if they anticipate that the prices of securities would go down in the future, then they prefer to hold cash. This is because, they would like to wait and purchase securities in the future when the prices of the securities fall. In such a situation, the liquidity preference of people will be high. Hence, it can be said that the liquidity preference of people is affected by the speculative motives of the people.

### **The liquidity preference curve**

Generally, when the prices of bonds and securities increase, the interest rate falls and when the prices of bonds and securities decrease, the rate of interest rises. Hence, there is an inverse relationship between the price of bonds and securities and the rate of interest. Due to this, the prices of securities and bonds are expected to increase when the rate of interest falls and vice versa. People tend to demand liquidity (speculative demand for liquidity) based on their expectations. We can conclude from the above observations that the interest rate differs inversely with the liquidity preference for speculative motives. Keynes's liquidity preference theory lays a lot of emphasis on speculative motive with

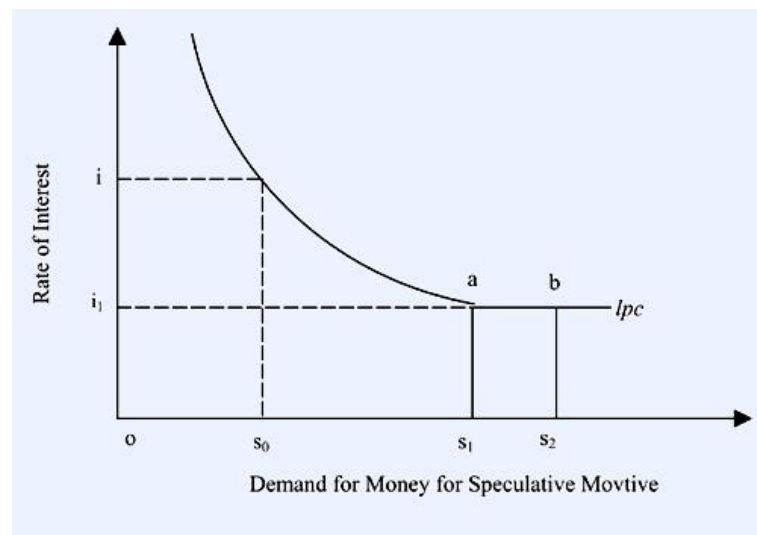
regard to determination of interest rates. The function for speculative demand for money can be shown in a relation as follows:

$$M_2 = f(\text{int}),$$

Where  $M_2$  is the speculative demand for money and  $f(\text{int})$  is the function of rate of interest.

The inverse relationship between the interest rate and the speculative demand for liquidity is represented in the Figure I. In the graph, the liquidity preference curve ' $lpc$ ' is a downward sloping curve from left to right. The x-axis represents the speculative demand for liquidity and the rate of interest is measured on the y-axis. When the rate of interest is at  $o_i$ , the speculative demand for money is at  $os_0$ . A fall in the rate of interest from  $o_i$  to  $o_{i_1}$  leads to an increase in the demand for money from  $os_0$  to  $os_1$ . Therefore, it represents an inverse relationship between interest rates and the speculative demand for liquidity.

**Figure I: The Speculative Demand for Money**



From the above, we can conclude that the demand for liquidity is a result of the demand for transaction, precautionary and speculative motives. When there are no or only some changes in the income levels, then there will be only minor changes in the demand for liquidity (arising out of transaction and precautionary motives). Therefore, changes in the interest rates influence the speculative demand for liquidity which is the primary source of demand for liquidity. As the determination of liquidity preference is largely dependent on the speculative demand for liquidity, it therefore becomes the crucial factor in determination of the rate of interest in Keynes's theory. The curve ' $lpc$ ' (liquidity preference curve) in figure 9.4 shows a downward-sloping demand curve for liquidity as a result of the three motives namely, transaction, precautionary and speculative.

### **The liquidity trap**

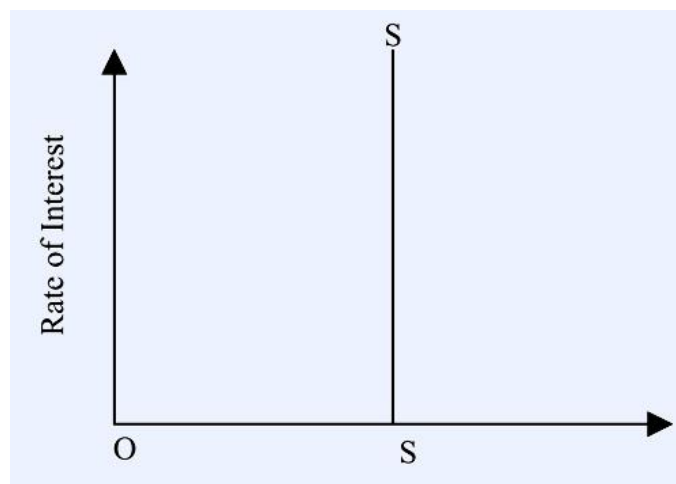
Keynes proposed that there is a certain limit below which the interest rate cannot fall. This was raised as a criticism against the classical economists who opined that interest rate can be zero. According to Keynes, the interest rate cannot come down further below

an institutionally-determined minimum limit. Keynes's liquidity trap concept states that the interest rate is sticky in the downward direction, on the *lpc* curve. Observe the portion 'ab' on the *lpc* curve (in Figure I). The portion is parallel to the x-axis. For supply of money at  $os_1$  the interest rate is at  $i_1$  and although the supply of money increased from  $os_1$  to  $os_2$ , the rate of interest is still at  $i_1$ . Therefore in this case,  $i_1$  is the minimum rate beyond which it cannot fall. At this point, the changes in money supply do not affect the interest rates. The portion of 'ab' where the interest rate remains same even if there is increase in supply of money is popularly called as the 'liquidity trap'. To sum it up, we can say that according to Keynes, the rate of interest cannot be zero or negative.

### Money supply

In Keynes's liquidity preference theory of interest, the supply of money is interest-inelastic. The supply of money in an economy is controlled by the government and cannot be influenced by individuals. Hence, Keynes proposed that in the short-run, the money supply in the economy remains constant. Thus, the money supply curve is perfectly inelastic to changes in the interest rates. This is also represented in the figure II, where, the money supply curve *SS* is parallel to y-axis.

**Figure II: The Supply Curve**



### Determining the rate of interest

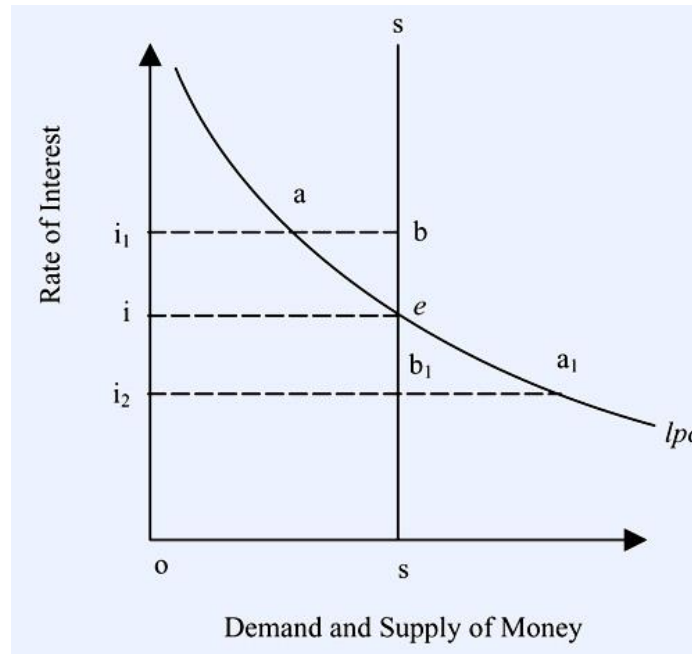
According to Keynes, rate of interest is determined by the point at which demand for liquidity is equal to supply of money. In other words, interest rate is determined by the equilibrium between demand and supply of money. Thus, equilibrium rate of interest is given by,

$$AD = SS$$

Figure III, explains the determination of equilibrium rate of interest. In the figure, the equilibrium rate of interest  $oi$  lies at point 'e'. At this point, the demand for liquidity is equal to supply of money. Any movement away from this rate of interest would lead to disequilibrium. At  $oi_1$  rate of interest, the supply of money  $b$  is more than the demand for money  $a$ . Thus, an increase in the rate of interest causes a decrease in demand for liquidity and increase in the supply of money. As a result, there will be a fall in the rate of interest to  $oi_2$ . This again leads to a situation, where the supply of money  $b_1$  is less than the demand for liquidity  $a_1$ . Note that at

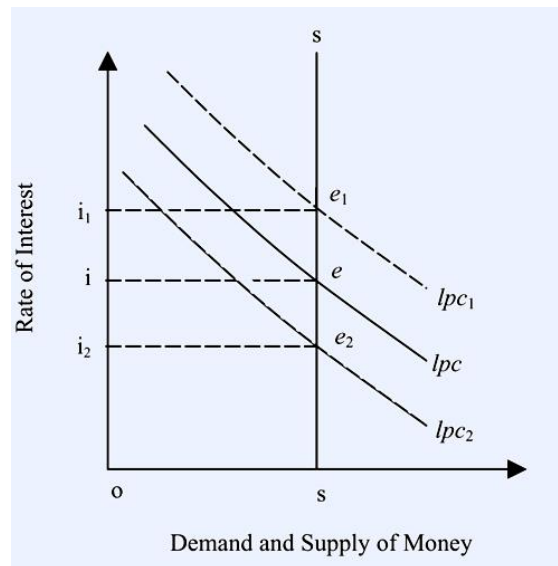
at  $oi_1$  interest rate, the demand for liquidity is less than the supply of money by  $ab$ . Similarly, at  $oi_2$  interest rate, the demand for liquidity is more than supply of money by  $a_1b_1$ . Both of these points are unstable. Therefore, the equilibrium rate of interest always rests at the point 'e' where the demand for liquidity is equal to the supply of money.

**Figure III: Determination of Rate of Interest**



A shift in the  $lpc$  curve changes the interest rates. In figure IV, the equilibrium interest rate lies at the point 'e', where demand for liquidity is equal to supply of money. When there is a shift in the liquidity preference of people, it also impacts the interest rates. Suppose, if there is an upward shift in the  $lpc$  curve, i.e. there is higher demand for liquidity, then the interest rate also increases from  $oi$  to  $oi_1$ . The supply of money, however, remains constant. The liquidity preference curve shifts upwards from  $lpc$  to  $lpc_1$ . When the liquidity preference of people is low and it shifts downward from  $lpc$  to  $lpc_2$ , the rate of interest falls from  $oi$  to  $oi_2$ . Therefore, according to Keynes, the interest rate changes along with the changes in demand for liquidity and the supply of money.

**Figure IV: Shift in Liquidity Preference Curve**



## Limitations

Following are the criticism leveled against Keynes's liquidity preference theory of interest:

- Concentrates only on money factors: According to Prof. Hazlit and Prof. Hansen, Keynes's consideration of interest as a pure monetary phenomenon is not appropriate. This is because, Keynes's monetary consideration was restricted to demand for and supply of money.
- Indeterminate theory: Keynes's criticism of classical was that the theory was indeterminate. In other words, the theory failed to determine the rate of interest. However, critics pointed out that Keynes's theory too failed to determine the interest rates. Keynes proposed that determination of interest is done by demand for and supply of money. He further said that the demand for money is determined by three motives namely transaction, precautionary and speculative. Of these, the speculative motive is determined by rate of interest. Therefore this leads to an equation where the rate of interest itself is determined by rate of interest, since speculative motive is determined by rate of interest. This implies that the theory is indeterminate
- No saving, no liquidity: Keynes's criticism of classical theory was that saving cannot be a reward for interest. However, many economists pointed out that liquidity does not arise without savings of individuals. They opined that interest induced people to save. According to Prof. Jacob Viner, "without saving there can be no liquidity to surrender".
- Three motives of liquidity: Keynes proposed that liquidity arises out of only three motives namely, transaction, precautionary and speculative. Analysts pointed out that demand for money can also be influenced by deflationary motive, motive to expand business transaction, etc.
- Failed to explain the differences between rates of interest: It was also criticized that the theory does not explain about the differences in rates of interests in various markets.
- Concentration on short run: Keynes's theory does not discuss in detail the determination of interest in the long-run.

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