

## KEYNES' LIQUIDITY PREFERENCE THEORY OF INTEREST

Keynes defines the rate of interest as the reward for parting with liquidity for a specified period of time. According to him, the rate of interest is determined by the demand for and supply of money.

**Demand for money:** Liquidity preference means the desire of the public to hold cash. According to Keynes, there are three motives behind the desire of the public to hold liquid cash: (1) the transaction motive, (2) the precautionary motive, and (3) the speculative motive.

**Transactions Motive:** The transactions motive relates to the demand for money or the need of cash for the current transactions of individual and business exchanges. Individuals hold cash in order to bridge the gap between the receipt of income and its expenditure. This is called the income motive.

The businessmen also need to hold ready cash in order to meet their current needs like payments for raw materials, transport, wages etc. This is called the business motive.

**Precautionary motive:** Precautionary motive for holding money refers to the desire to hold cash balances for unforeseen contingencies. Individuals hold some cash to provide for illness, accidents, unemployment and other unforeseen contingencies. Similarly, businessmen keep cash in reserve to tide over unfavourable conditions or to gain from unexpected deals.

Keynes holds that the transaction and precautionary motives are relatively interest inelastic, but are highly income elastic. The amount of money held under these two motives ( $M_1$ ) is a function ( $L_1$ ) of the level of income ( $Y$ ) and is expressed as  $M_1 = L_1(Y)$

**Speculative Motive:** The speculative motive relates to the desire to hold one's resources in liquid form to take advantage of future changes in the rate of interest or bond prices. Bond prices and the rate of interest are inversely related to each other. If bond prices are expected to rise, i.e., the rate of interest is expected to fall, people will buy bonds to sell when the price later actually rises. If, however, bond prices are expected to fall, i.e., the rate of interest is expected to rise, people will sell bonds to avoid losses.

According to Keynes, the higher the rate of interest, the lower the speculative demand for money, and lower the rate of interest, the higher the speculative demand for money. Algebraically, Keynes expressed the speculative demand for money as

$$M_2 = L_2(r)$$

Where,  $L_2$  is the speculative demand for money, and  $r$  is the rate of interest.

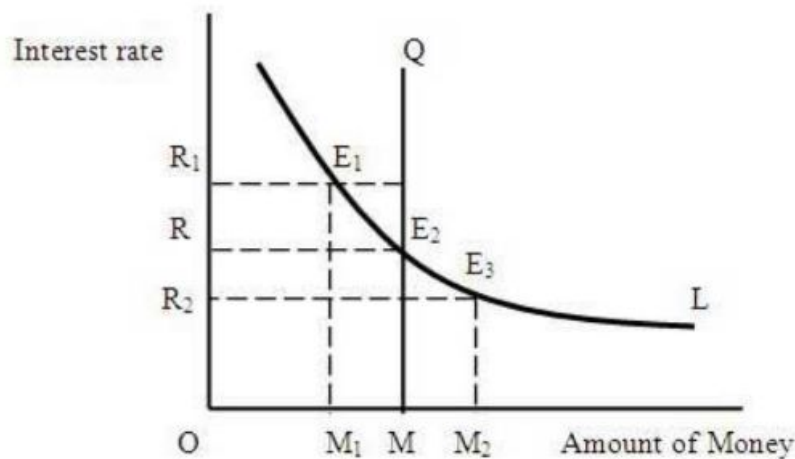
Geometrically, it is a smooth curve which slopes downward from left to right.

Now, if the total liquid money is denoted by  $M$ , the transactions plus precautionary motives by  $M_1$  and the speculative motive by  $M_2$ , then

$M = M_1 + M_2$ . Since  $M_1 = L_1(Y)$  and  $M_2 = L_2(r)$ , the total liquidity preference function is expressed as  $M = L(Y, r)$ .

**Supply of Money:** The supply of money refers to the total quantity of money in the country. Though the supply of money is a function of the rate of interest to a certain degree, yet it is considered to be fixed by the monetary authorities. Hence the supply curve of money is taken as perfectly inelastic represented by a vertical straight line.

**Determination of the Rate of Interest:** Like the price of any product, the rate of interest is determined at the level where the demand for money equals the supply of money. In the following figure, the vertical line  $QM$  represents the supply of money and  $L$  the total demand for money curve. Both the curve intersect at  $E_2$  where the equilibrium rate of interest  $OR$  is established.



If there is any deviation from this equilibrium position an adjustment will take place through the rate of interest, and equilibrium  $E_2$  will be re-established.

At the point  $E_1$  the supply of money  $OM$  is greater than the demand for money  $OM_1$ . Consequently, the rate of interest will start declining from  $OR_1$  till the equilibrium rate of interest  $OR$  is reached. Similarly at  $OR_2$  level of interest rate, the demand for money  $OM_2$  is greater than the supply of money  $OM$ . As a result, the rate of interest  $OR_2$  will start rising till it reaches the equilibrium rate  $OR$ .

It may be noted that, if the supply of money is increased by the monetary authorities, but the liquidity preference curve  $L$  remains the same, the rate of interest will fall. If the demand for money increases and the liquidity preference curve shifts upward, given the supply of money, the rate of interest will rise.

**Criticisms:** Keynes theory of interest has been criticized on the following grounds:

1. It has been pointed out that the rate of interest is not purely a monetary phenomenon. Real forces like productivity of capital and thriftiness or saving by the people also play an important role in the determination of the rate of interest.
2. Liquidity preference is not the only factor governing the rate of interest. There are several other factors which influence the rate of interest by affecting the demand for and supply of investible funds.
3. The liquidity preference theory does not explain the existence of different rates of interest prevailing in the market at the same time.
4. Keynes ignores saving or waiting as a means or source of investible fund. To part with liquidity without there being any saving is meaningless.
5. The Keynesian theory only explains interest in the short-run. It gives no clue to the rates of interest in the long run.
6. Keynes theory of interest, like the classical and loanable funds theories, is indeterminate. We cannot know how much money will be available for the speculative demand for money unless we know how much the transaction demand for money is.

#### **Uncertainty Bearing Theory of Profit:**

This theory was propounded by an American economist Prof. Frank H. **Knight**. This theory, starts on the foundation of Hawley's risk bearing theory. Knight agrees with Hawley that profit is a reward for risk-taking. There are two types of risks viz. foreseeable risk and unforeseeable risk. According to Knight unforeseeable risk is called uncertainty bearing.

Knight, regards profit as the reward for bearing non-insurable risks and uncertainties. He distinguishes between insurable and non-insurable risks. Certain risks are measurable, the probability of their occurrence can be statistically calculated. The risks of fire, theft, flood and death by accident are insurable. These risks are borne by the insurance company.

The premium paid for insurance is included in the cost of production. According to Knight these foreseen risks are not genuine economic risks eligible for any remuneration of profit. In other words insurable risk does not give rise to profit.

According to Knight profit is due to non-insurable risk or unforeseeable risk.

**Some of the non- insurable risks which arise in modern business are as follows:**

**(a) Competitive risk:**

Some new firms enter into the market unexpectedly. The existing firms may have to face serious competition from them. This will inevitably lower down the profit of the firms.

**(b) Technical risk:**

This risk arises from the possibility of machinery becoming obsolete due to the discovery of new processes. The existing firm may not be in a position to adopt these changes into its organization, and hence suffer losses.

**(c) Risk of government intervention:**

The government, in course of time, interferes into the affairs of the industry such as price control, tax policy, import and export restrictions, etc., which might reduce the profits of the firm.

**(d) Cyclical risk:**

This risk emerges from business cycles. Due to business recession or depression, consumer's purchasing power is reduced, consequently demand for the product of the firm also falls.

**(e) Risk of demand:**

This is generated by a shift or change of demand in the market.

Prof. Knight calls these risks as 'uncertainties' and 'it is uncertainties in this sense which explains profit in the proper use of the term'. These risks cannot be foreseen and measured, they become non- insurable and the uncertainties have to be borne by the entrepreneur. According to this theory there is a direct relationship between profit and uncertainty bearing.

Greater the uncertainty bearing the higher the level of profit. Uncertainty bearing has become so important in business enterprise in modern days, it has come to be considered as a separate factor of production. Like other factors it has a supply price and entrepreneurs undertake uncertainty bearing in the expectation of earning certain level of profit. Profit is thus the reward for assuming uncertainty.

In the modern days production has to take place in advance of consumption. The producers have to face their rival producers and the future is uncertain and unknown. These are uncertainties. Some entrepreneurs are able to see it more clearly than others and therefore able to earn profit.

**Criticism:**

1. According to this theory, profit is the reward for uncertainty bearing. But critics point out that sometimes an entrepreneur earns no profit in spite of uncertainty bearing.
2. Uncertainty bearing is one of the determinants of profit and it is not the only determinant. Profit is also a reward for many other activities performed by entrepreneur like initiating, coordinating and bargaining, etc.
3. It is not possible to measure uncertainty in quantitative terms as depicted in this theory.
4. In modern business corporations ownership is separate from control. Decision-making is done by the salaried managers who control and organise the corporation. Ownership rests with the shareholders who ultimately bear uncertainties of business. Knight does not separate ownership and control and this theory becomes unrealistic.
5. Uncertainty bearing cannot be looked upon as a separate factor of production like land, labour or capital. It is a psychological concept which forms part of the real cost of production.
6. Monopoly firms earn much larger profits than competitive firms and they are not due to the presence of uncertainty. This theory throws no light on monopoly profit.

Knight's theory of profit is more elaborate than other theories, because it combines the conception of risk, of economic change and of the role of business ability.

**Schumpeter's Innovation Theory:**

This theory was propounded by Schumpeter. This theory is more or less similar to that of Clark's theory. Instead of five changes mentioned by Clark, Schumpeter explains the change caused by innovations in the production process. According to this theory profit is the reward for innovations. He uses the term innovation in a sense wider than that of the changes mentioned by Clark.

Innovation refers to all those changes, in the production process with an objective of reducing the cost of commodity so as to create gap between the existing price of the commodity and its new cost. Innovation may take any shape like introduction of a new technique or a new plant, a change in the internal structure or organizational set up of the firm or change in the quality of raw material, a new form of energy, better method of salesmanship, etc.

Schumpeter makes a distinction between invention and innovation. Innovation is brought about mainly for reducing the cost of production and it is cost reducing agent. Profit is the reward for this strategic role, Innovations are not possible by all entrepreneurs. Only exceptional entrepreneurs can innovate. They are capable of tapping new resources, technical knowledge and reduce the cost of production. Thus the main motive for introducing innovation is the desire to earn profit. Profit is therefore the cause of innovation.

Profits are of temporary nature. The pioneer who innovates earns abnormal profit for a short period. Soon other entrepreneurs, "swarm in clusters", compete for profit in the same manner. The pioneer will make another innovation. In a dynamic world innovation in one field may induce other innovations in related fields.

The emergence of motor car industry may in turn stimulate new investments in the construction of highways, rubber, tyres and petroleum products. Profits are thus causes and effects of innovation. The interest of profit leads entrepreneur to innovate and innovation leads to profit. Thus profit has a tendency to appear, disappear and reappear.

Profits are caused by innovation and disappear by imitation. Innovational profit is thus, never permanent, in the opinion of Schumpeter. Therefore it is different from other incomes, such as rent, wages and interest. These are regular and permanent incomes arising under all circumstances. Profit on the other hand is a temporary surplus resulting from innovation.

Prof. Schumpeter also explained his views on the functions of the entrepreneur. The entrepreneur organizes the business and combines the various factors of production. But this is not his real function and this will not yield him profit. The real function of the entrepreneur is to introduce innovations in business. It is innovations which yield him profit.

### **Criticisms:**

1. This theory concentrates only on innovation, which is only one of the many functions of the entrepreneur and not the only factor.
2. This theory does not consider profit as the reward for risk-taking. According to Schumpeter it is the capitalist not the entrepreneur who undertakes risk.
3. This theory has ignored the importance of uncertainty bearing which is one of the factors that determines profit.
4. This theory attributes profit only to innovation ignoring other functions of entrepreneur.
5. Monopoly profits are permanent in nature while Schumpeter says that innovate profits occur temporarily.
6. This theory has presented a very narrow view of the function of the entrepreneur. He not only introduces innovation but he is equally responsible for proper organisation of the business. As such profit is not merely due to innovation. It is also due to organizational work performed by the entrepreneur. As it is well known, every entrepreneur does not innovate and yet he must earn profit if he is to stay in business.

7. It is an incomplete theory because it has failed to explain all the factors that influence profit.

### **The Ricardian Theory of Rent (With Diagram)**

Read this article to learn about the Ricardian theory of rent.

#### **Explanation of the Theory:**

David Ricardo, an English classical economist, first developed a theory in 1817 to explain the origin and nature of economic rent. Ricardo used the economic and rent to analyse a particular question. In the Napoleonic wars (1805-1815) there were large rise in corn and land prices. Did the rise in land prices force up the price of corn, or did the high price of corn increase the demand for land and so push up land prices. Ricardo defined rent as, **“that portion of the produce of the earth which is paid to the landlord for the use of the original and indestructible powers of the soil.”** In his theory, rent is nothing but the producer’s surplus or differential gain, and it is found in land only.

#### **Assumptions of the Theory:**

**The Ricardian theory of rent is based on the following assumptions:**

1. Rent of land arises due to the differences in the fertility or situation of the different plots of land. It arises owing to the original and indestructible powers of the soil.
2. Ricardo assumes the operation of the law of diminishing marginal returns in the case of cultivation of land. As the different plots of land differ in fertility, the produce from the inferior plots of land diminishes though the total cost of production in each plot of land is the same.
3. Ricardo looks at the supply of land from the standpoint of the society as a whole.
4. In the Ricardian theory it is assumed that land, being a gift of nature, has no supply price and no cost of production. So rent is not a part of cost, and being so it does not and cannot enter into cost and price. This means that from society’s point of view the entire return from land is a surplus earning.

#### **Reasons for Existence of Rent:**

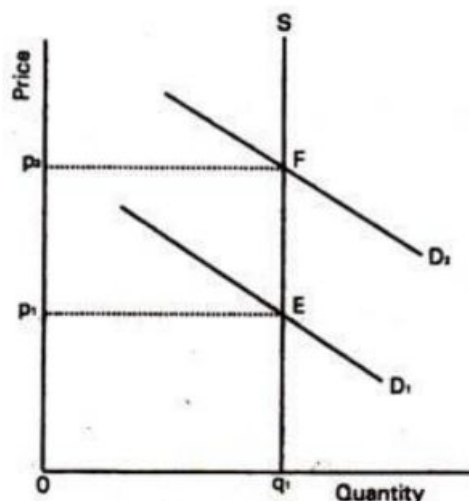
**According to Ricardo rent arises for two main reasons:**

- (1) Scarcity of land as a factor and
- (2) Differences in the fertility of the soil.

#### **Scarcity Rent:**

Ricardo assumed that land had only one use—to grow corn. This meant that its supply was fixed, as shown in Figure 13.1. Hence the price of land was totally determined by the demand for land. In other words, all the price of a factor of production in perfectly inelastic supply is economic rent—it has no transfer earnings.

Thus, it was the high price of corn which caused an increase in the demand for land and a rise in its price, rather than the price of land pushing up the price of corn. However, this analysis depends on the assumption that land has only one use. In the real world a particular piece of land can be put to many different uses. This means its supply for any one use is elastic, so that it has transfer earnings.



**Fig. 13.1. Earnings of a Factor in Fixed Supply**

**Differential Rent:**

According to Ricardo, rent of land arises because the different plots of land have different degree of productive power; some lands are more fertile than others. So there are different grades of land. The difference between the produce of the superior lands and that of the inferior lands is rent—what is called differential rent. Let us illustrate the Ricardian concept of differential rent.

**Differential Rent on account of differences in the fertility of soil:**

Ricardo assumes that the different grades of lands are cultivated gradually in descending order—the first grade land being cultivated at first, then the second grade, after that the third grade and so on. With the increase in population and with the consequent increase in the demand for agricultural produce, inferior grades of lands are cultivated, creating a surplus or rent for the superior grades. This is illustrated in Table 13.1.

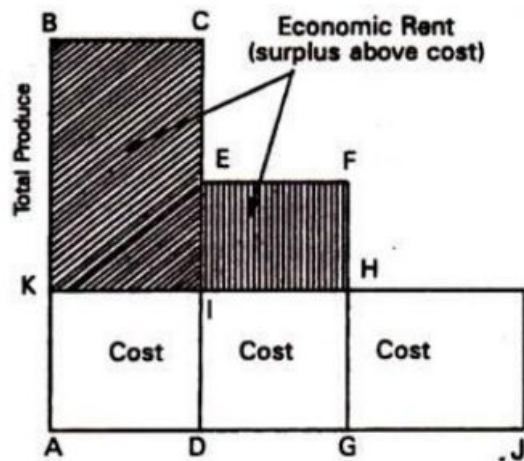
**Table 13.1: Calculation of Differential Rent**

Grade of Land (the same size)	Total Produce and its Value	Cost of Production	Rent	Status of land
1st	40 kg × Rs. 5 = Rs. 200	Rs. 100	Rs. 100	Above-marginal Land
2nd	30 kg × Rs. 5 = Rs. 150	"	Rs. 50	"
3rd	20 kg × Rs. 5 = Rs. 100	"	Nil	Marginal (or No Rent) Land
4th	15 kg. × Rs. 5 = Rs. 75	"	Rs. -25	Below-marginal Land

Table 13.1 shows the position of 3 different plots of land of equal size. The total cost is the same for each plot of land. Let us assume that the order of cultivation reaches the third stage when all the three plots of land of different grades are cultivated and the market price has come to the level of Rs. 5 per kg of wheat.

The first grade land, being the most fertile, produces 40 kg, the second grade 70 kg and the third grade land, being less fertile, only 20 kg. So, the first grade land earns a surplus or rent of Rs. 100, the second grade a rent of Rs. 50 and the third one earns no surplus. The first two plots are called the intra-marginal and the third one is the marginal (or no-rent) land. This simple example shows how the differences in the fertility of the different plots of land create rent for the superior plots of lands.

The concept of differential rent arising due to differences in the fertility of different plots of land is illustrated in Fig. 13.2.



**Fig. 13.2. Differential Rent**

Here, AD, DG and GJ are three separate plots of land of the same size, but of difference in fertility. The total produce of AD is ABCD, that of DG is DEFG and that of GJ is GHIJ. The first and second plots of land generate a surplus shows by the shaded area, which represents the rent of the first two plots of land. Since the third plot GJ has no surplus it is marginal land or no-rent land. Grade 4 (below-marginal) land will not be cultivated, because rent is negative (Rs. 25 in this example).

### **Rent and Price:**

From the Ricardian theory we can show the relation between rent (of land) and price (of wheat). Since the market price of wheat is determined by costs of the marginal producer and since, for this marginal producer, rents are zero, Ricardo concluded that economic rent is not a determinant of market price. Rather, price of wheat is determined solely by the market demand for wheat and the availability of fertile land.

### **Deductions from the Theory:**

**If rent depends on price and on the superiority of rent-producing land over marginal land, we can deduce the following:**

#### **1. Improved methods of farming:**

Improved methods of cultivation may lead to a fall in rent (demand remaining unchanged). It is because increased output on the superior grades of land will make the cultivation of inferior grades of land unnecessary.

#### **2. Population growth:**

Population growth is likely to lead to a rise in rent, since the increased demand for land will bring poor quality land into cultivation, thus lowering the output of marginal land. Thus, if the price of food increases, the rent of existing land will increase.

#### **3. Improved transport facilities:**

Improved transport facilities are likely to lead to a fall in rent. It is because the output of less fertile land of foreign countries may be able to compete more closely with the home produce. So there will be no need to cultivate inferior home areas. As a result the output of the marginal land rises and rent falls.

Thus, it is difficult to say whether or not rent increases with economic progress. However, rent is likely to fall with economic progress if population growth is unable to fully neutralise the effects of technological progress and improvement in transport facilities.

### **Criticisms of the Theory:**

#### **Ricardian theory has been criticised on the following grounds:**

1. Ricardo considers land as fixed in supply. Of course, land is fixed in an absolute sense. But land has alternative uses. So the supply of land to a particular use is not fixed (inelastic). For example, the supply of wheat land is not absolutely fixed at any given time.
2. Ricardo's order of cultivation of lands is also not realistic. If the price of wheat falls the marginal land need not necessarily go out of cultivation first. Superior grades of land might cease to be cultivated if a fall in the price of its output causes such land being demanded for other purposes (e.g., for constructing houses).
3. The productivity of land does not depend entirely on fertility. It also depends on such factors as position, investment and effective use of capital.
4. Critics have pointed out that land does not possess any original and indestructible powers, as the fertility of land gradually diminishes, unless fertilisers are applied regularly.
5. Ricardo's assumption of no-rent land is unrealistic as, in reality; every plot of land earns some rent, although the amount may be small.
6. Ricardo restricted rent to land only, but modern economists have shown that rent arises in return to any factor of production, the supply of which is inelastic.
7. According to Ricardo, rent does not enter into price (cost) but from the point of view of an individual farm rent forms a part of cost and price.

### **Conclusion:**

In spite of the various shortcomings of the Ricardian theory, it cannot be discarded—as Stonier and Hague remarked — “The concept of transfer earnings helps to bring the simple Ricardian theory of rent into closer relation with reality.”