

Demand For Money



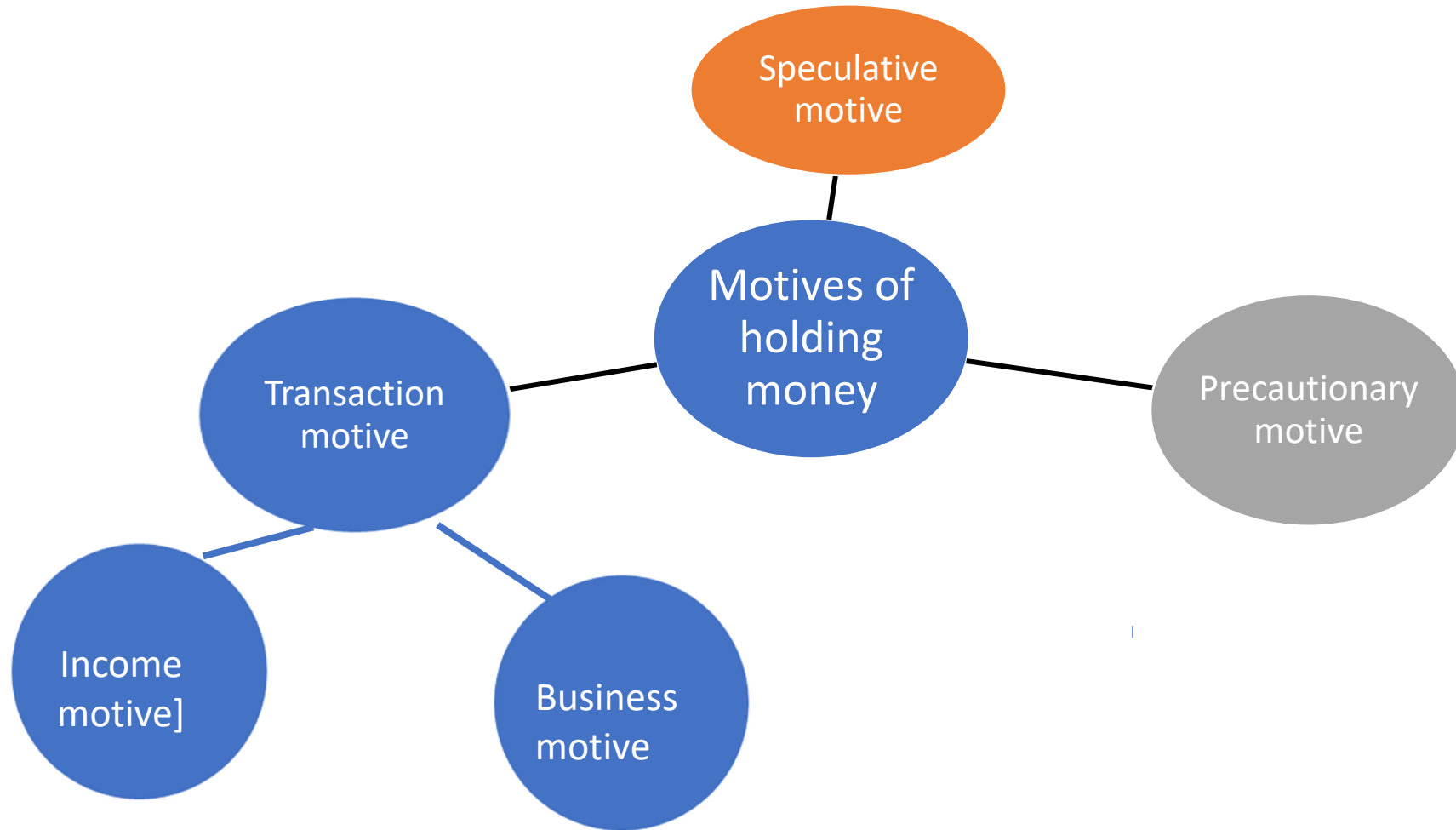
The demand for money arises from two important functions of money. The first is that money acts as a **medium of exchange** and the second is that it is a **store of value**. Thus individuals and businesses wish to hold money partly in cash and partly in the form of assets.

There are three approaches to the demand for money: the classical, the Keynesian, and the post-Keynesian.

The Keynesian Approach: Liquidity Preference:

Keynes in his General Theory used a new term “liquidity preference” for the demand for money. Keynes suggested three motives which led to the demand for money in an economy:

- (1) the transactions demand,
- (2) the precautionary demand, and
- (3) the speculative demand.



The Transactions Demand for Money:

The transactions demand for money arises from the medium of exchange function of money in making regular payments for goods and services. According to Keynes, it relates to “the need of cash for the current transactions of personal and business exchange”

It is further divided into income and business motives.

The Income Motive

The income motive is meant “to bridge the interval between the receipt of income and its disbursement.” The income motive refers to the transaction demand for money by the wage and salary earners. They receive income once in a month or in some cases weekly or daily. Money is required for these people to carry out transactions of all kinds. They may include regular payments like rent, grocery bills, electricity and all other payments. When

the time interval between two income receipts is a month, people require to hold money with them to meet their daily payments. Money held for this purpose declines over the income interval period, at the end of the period the balance being zero.

Business Motive

Business firms require to hold money to meet their day-to-day transactions. The income interval of the firms may be a month or two or even longer as there is always a time gap between production and realization of its value. Meanwhile they require to keep money for payments of various bills such as electricity, rent, raw material, wages etc. The money held at the beginning of income interval period is high and declines over the period.

The amount of money held for transaction motive thus depends on the following factors.

(i) Level of income

Rich people hold larger amount of money due to their higher income. The poor people hold hardly any cash as their income is negligible.

(ii) Time interval

Longer the income time interval more is the cash-balance and vice versa. Those who earn their income daily, do not require to hold much cash.

(iii) The price level

Generally, during inflationary period transaction demand for money rises due to rising price level.

(iv) Volume of employment

When volume of employment and output rises, the transaction demand for money would rise.

The Precautionary Motive

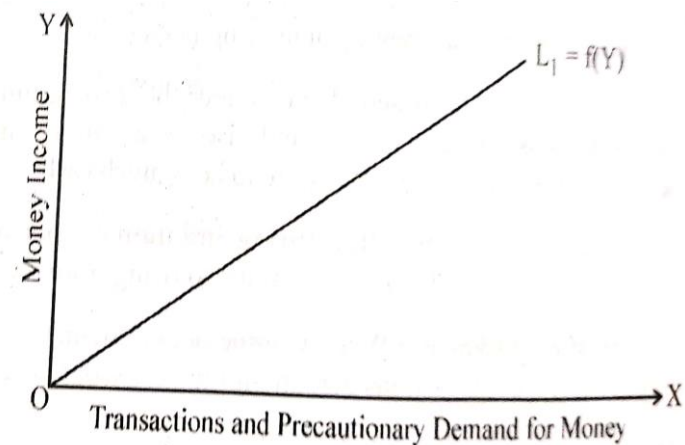
The Precautionary motive relates to “the desire to provide for contingencies requiring sudden expenditures and for unforeseen opportunities of advantageous purchases.” Both individuals and businessmen keep cash in reserve to meet unexpected needs. Individuals hold some cash to provide for illness, accidents, unemployment and other unforeseen contingencies.

Similarly, businessmen keep cash in reserve to tide over unfavourable conditions or to gain from unexpected deals. The " The precautionary demand for money depends upon the level of income, and business activity, opportunities for unexpected profitable deals, availability of cash, the cost of holding liquid assets in bank reserves, etc.

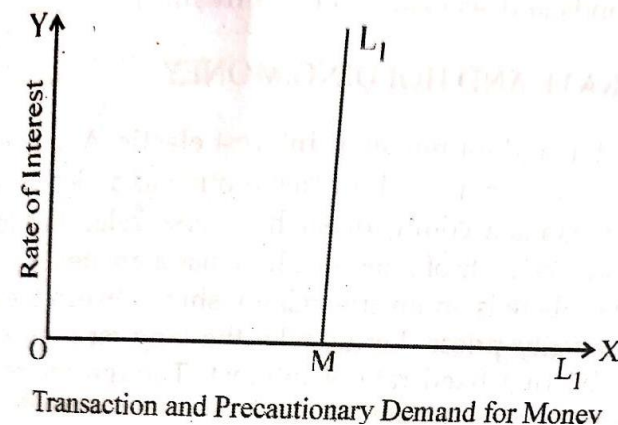
Keynes held that the precautionary demand for money, like transactions demand, is a function of the level of income. The combined demand for money for these two purposes is expressed in the single equation

$$L_1=f(y)$$

The following figure explains the relationship between demand for money and income.



The demand for money for transactions and precautionary motives is interest inelastic. The demand curve would be vertical which shows that the demand of money for transactions and precautionary motives is unaffected by the changes in the rate of interest.



The demand for money held under transaction and precautionary motives is known as demand for active cash balances.

3. The speculative Motive

The demand for money for speculative motive is related to the **store of value** function of money. It is also known as asset demand for money.

People have the alternative of holding either cash money or financial assets like government bonds or equities. The speculative demand is also related to uncertainty. The element of uncertainty is concerned with uncertain capital value of financial assets. People desire to gain by purchasing the financial assets at a low price and selling when their prices rise. Those who expect the prices of bonds and equities to fall and those who do not expect the prices to increase any further, sell bonds and securities held by them.

Interest rate and holding money

Speculative demand for money is interest elastic. At a higher rate of interest, less money is held for this motive and vice versa. This is because

1. Holding cash when rate of interest is high has a greater opportunity cost
2. There is an inverse relationship between the interest rate and security prices.

Eg. Let there is long-term government securities bearing fixed rate of interest. Though the return on government securities remain fixed, the rate of interest in the market does not remain constant. As the interest rate in the market increases, people prefer to invest in the market instead of in low yielding government securities.

However if government securities are offered by those, who need cash, they will be purchased at a lower price.

Let a Rs 100 government security brings a fixed return of 10%, the market rate of interest at the same time goes up to 15%, then the price of the security in the market would be Rs 66.66. It is because Rs 66.66 will earn Rs 10 at 15% interest that prevails in the market.

Similarly when the market rate of interest declines, the security price rise. If the market interest declines to 8% then the security price would be Rs 125.

The changes in market rate of interest and security price can be expressed in the form of an equation

$$P = \frac{R}{m} \times N$$

Where P = Market price of security

R = Return on the securities

M = market rate of interest

N = original price of the security

If $R = 10\%$ and $m = 15\%$

Then the price of securities will be

$$P = \frac{0.10}{0.15} \times 100 = 66.66$$

If $m = 8\%$, the price of securities will be

$$P = \frac{0.10}{0.08} \times 100 = 125$$

This explains the inverse relationship between market rate of interest and market prices of the securities. Therefore people do not hold cash when rate of interest is high since

- (i) The opportunity cost of holding cash is high and
- (ii) Security prices at that time, being low investors are induced to purchase them.

It is profitable to buy when the interest rate is high and sell them when the market rate of interest declines pushing up security prices. Whereas when the market rate of interest is low, people prefer to hold cash since the opportunity cost of holding cash is very low and sell securities due to their high prices.

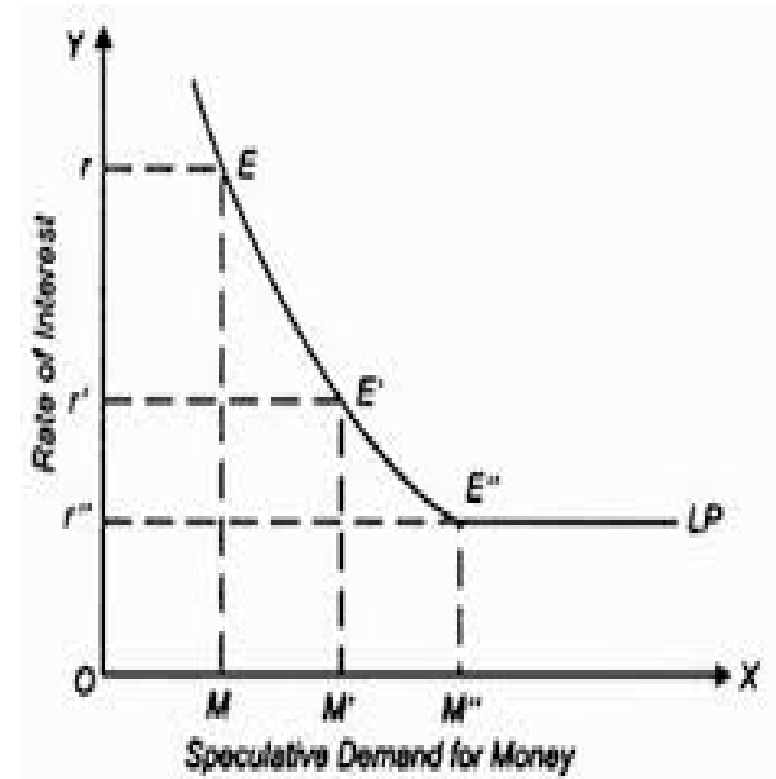
Besides this reason, expectations regarding the market rate of interest and security prices also has an important role in determining the speculative demand for money. When the market rate of interest is low, it is expected that the interest rate will increase in the near future, thus bringing down prices of the securities. Such expectations induce people to hold more cash. At very high rate of interest, there are no expectations of any further increase therefore the security prices are at their lowest, attracting the investors to purchase them. Such purchases at this point are with expectation of decline in the rate of interest and consequent increase in security prices

In the figure at interest r , only OM quantity is demanded. At a lower interest r' , OM' and at r'' OM'' quantity is demanded. From point E'' demand for LP becomes perfectly elastic which is called **Liquidity Trap**.

Demand for money held under the speculative motive is referred to as the demand for **idle cash balances**.

The speculative demand for money (L_2) depends on the rate of interest r .

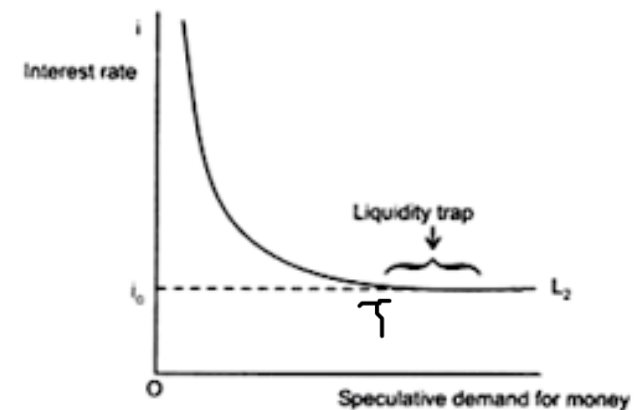
$$L_2 = f(r)$$



Liquidity Trap

Keynes suggested that at a very low rate of interest the speculative demand for money becomes perfectly elastic. Keynes considered a 2% rate of interest as the lowest rate below which the market rate of interest would not decline. At such a low rate of interest, people prefer cash and not the securities. At this point, when the expectation about the future fall in the security prices is high, everyone prefers to hold cash to gain from the future market situation.

The L_2 curve is sloping downwards up to point T, showing an inverse relationship between speculative demand for money and market rate of interest.



Interest. At point T, the L2 curve becomes horizontal. The horizontal part of the L2 curve shows the liquidity trap. Any attempt by monetary authorities at this point to increase money supply would not affect the rate of interest since it is already at its lowest level.

Total demand for money

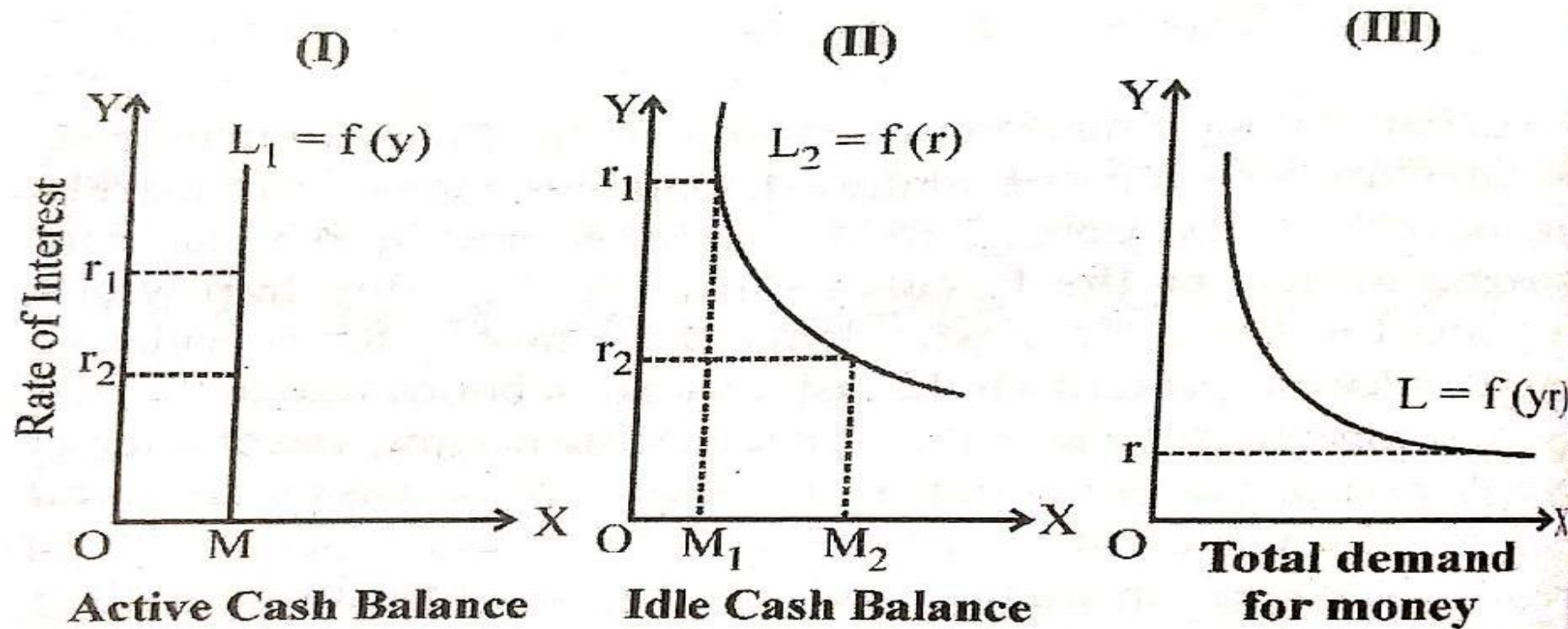
The total demand for money will be the sum of active cash balances and idle cash balances.

$$M_d = L1(Y) + L2(r)$$

Where $L1(y)$ is demand for active cash balances or the demand for transaction and precautionary motives, both are an increasing function of the level of income.

$L2(r)$ is speculative demand which is a declining function of rate of interest.

Therefore $M_d = f(y,r)$



Resources

1. yourarticlelibrary.com
2. Economicdiscussion.com
3. H.L Ahuja, Principles of Macroeconomics (S.Chand Publishing, 2019)
4. Salvatore, D.: Managerial Economics in a global economy (Thomson South Western Singapore, 2001)