

15. MONEY AND PRICES

Q:1 Explain / critically evaluate Fisher's Equation of Exchange?

(A) Quantity Theory of Money and Price Level :-

The Price Level measures the amount of money that has to be given to obtain one unit of output.

The quantity theory of money was used by economist to explain changes in general price level.

Methods of Qty. Theory of money

(I) Classical Cash Transaction

(Fisher's Equation of Exchange)

(II) Neoclassical Cash balances

(Cambridge Equation)

(B) Classical Cash Transaction Method. (Fisher's Equation of Exchange) :-

According to this theory - quantity of money is main determinant of price-level. Any changes in qty. of money brings same change in price level.

According to Irving Fisher -

"Other things being constant, as quantity of money in circulation increases the price level also increases in same proportion and the value of money decreases and vice versa."

e.g) If Qty. of money is doubled then Price level will also double and Value of money will be one and half.

According to Fisher Equation - $MV = PT$

$$P = \frac{MV}{T}$$

P = Price level.

M = Total Qty. of money.

V = Velocity of Circulation M

M' = Total Qty. of Credit money

V' = Velocity of Circulation M'

T = Total amount of goods & services / Total Transactions

$$PT = MV + M'V'$$

Example :- Suppose Qty. of money = ₹ 50,000 in an economy and Velocity of money in Circulation (V) is 4. Total out put transacted (T) is 20,000 Unit. Then Price Level = ?

$$P = \frac{MV}{T} = \frac{50,000 \times 4}{20,000} = \underline{\underline{₹ 10}}$$

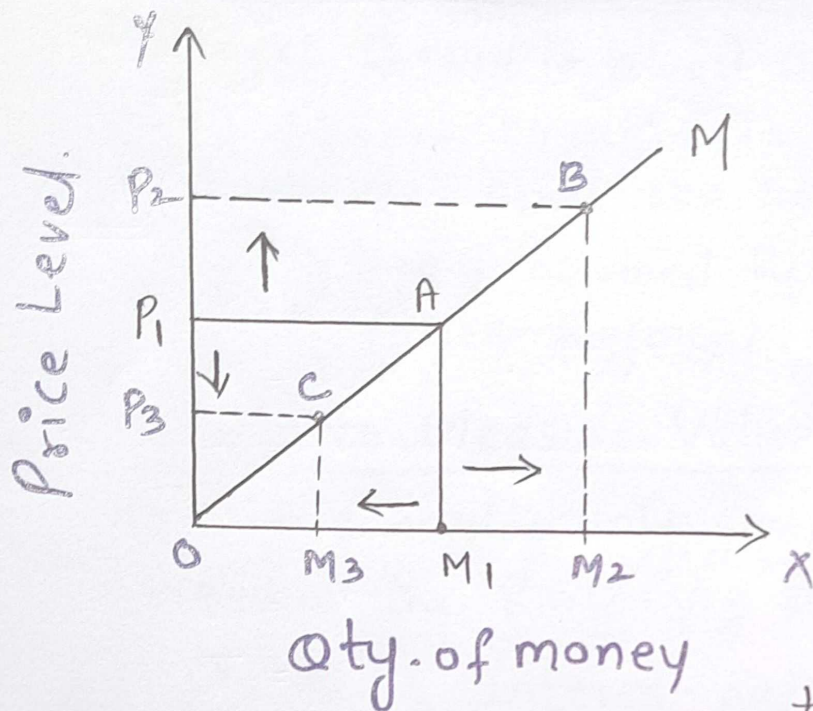
$$\text{Price level} = \underline{\underline{₹ 10}}$$

Other thing remain constant, if Qty. of money (M) is doubled then - M = ₹ 1,00,000

$$\text{Now - } P = \frac{MV}{T} = \frac{1,00,000 \times 4}{20,000} = \underline{\underline{₹ 20}}$$

$$\underline{\underline{\text{Price Level} = ₹ 20}}$$

D) Diagram :-



- In diagram we observe -
- 1) P_1 is original price level at M_1 quantity of money.
 - 2) Price level increases to P_2 due to increase in quantity of money to M_2 .
 - 3) When quantity of money reduced to M_3 , Price level also reduced to same proportionate to P_3 .

E) Assumption of Theory :-

1. P is the Passive Factor in the Equation of exchange.
2. The proportion of M' to M remain constant.
3. The proportion of V and V' assumed to be constant.
4. T also remain constant.
5. It is assumed that demand for money is proportional to value of Transactions.
6. The supply of money assumed to be constant.
7. Full-employment - in the economy is assumed.
8. This theory is applicable in Long-Run.

F) Criticism of the Theory :-

1. Weak Theory :- According to Crowther, this theory cannot explain why there are fluctuations in price-level. This theory gives more importance to price-level only.

2. Unrealistic Assumption :- According to Keynes, Fisher's theory is based on Unrealistic assumptions
 (e.g) Fisher's equation is applicable in Long-Run it means short-run neglected.

This theory assumed Full-employment but Keynes said Full-employment is special situation etc.

3. Fails to Measure Value of Money :- Fisher's theory considers only cash transaction but does not measure the purchasing power of money.

4) Neglects Interest Rate :- Fisher's theory neglects the role of rate of interest as one of important factors between money and prices.

5) Neglects Real Balance Effect :- Fisher's theory neglects to make use of real balance effect, that is the real value of cash balance.

(e.g) A fall in price level will increase real value of cash balance which increases consumption expenditure.

6) Ignore Store of Value Function of Money :- Fisher's theory is based on money's function as Medium of Exchange alone. It assumed that demand for money is only for transaction and that it is constant.

7) Static :- Fisher's theory is static in nature due to unrealistic assumptions as Long-run, Full-employment etc. Thus this theory is not useful in modern dynamic economy.

5.

Q:2 Explain Neo-Classical / Cambridge / Cash-balance approach of demand for money?

(A) Neo-classical / Cambridge / Cash balance Theory

OF Demand for money:-

The Neo-Classical Theory is developed by Cambridge economists - Marshall and Pigou.

This Cash-balance theory of demand for money is different from Fisher's theory of transaction.

This theory gave more importance on the function of money as a store of value.

The Demand for money means cash balances held by individuals in an economy.

By making a total of cash balances held by all the individuals in the economy, we get the total demand for money in economy.

The decisions of individuals to hold cash balances are affected due to -

- i) Rate of Interest
- ii) wealth possessed by individual
- iii) Future expectations
- iv) Purchasing power of money etc.

In short period, these factors remain constant.

The total demand for money is a proportional to national income. People wish to hold certain amount of money (K).

There is direct relationship between Demand For money (Md) and money value of national output.

$$M_d = KPY$$

6.
 M_d = Demand for money.

P = Avg. Price

Y = real national output

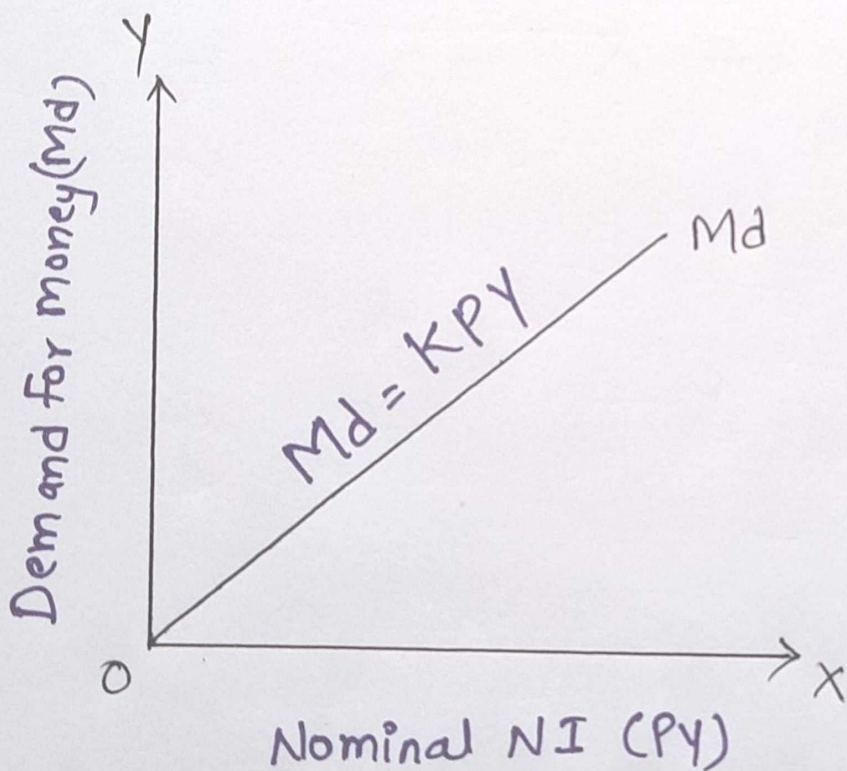
K = Proportion of national output.

Example :- Suppose M_d is ₹10,000 Crores and money income is ₹40,000 Crores per year. Then $K = ?$

$$M_d = KY$$

$$K = \frac{M_d}{Y} = \frac{10,000}{40,000} = \frac{1}{4}$$

It means on an average people like to hold money equal to $\frac{1}{4}$ of their annual income



1) on x-axis Nominal National income (PY) and on y-axis demand for money is measured.

2) Demand for money curve is sloping upward and shows Linear Function of nominal NI.

3) Thus important feature of cash-balance approach is that it makes the demand for money as function of money income alone.

Ⓑ Limitation

1) Rate of interest, wealth, consumer's future expectations etc. has been not introduced in this theory.

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- 2) It does not consider all the determinants of Demand for money.
 3. It ignores bank deposits, savings and investments etc.
 4. This theory assumed that Elasticity of demand for money is Unity ($e=1$) which is not possible in the dynamic society of today.

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