

Classical theory of Income & Employment : Aggregate Demand Money & Prices

Introduction of quantity of money according to classical theory, determines only the price level of output and in no way affects the real magnitude of saving and Investment. Since qty of money determines the price level of the output, it also affects real wage rate i.e. W/P but with the increase in money supply, money wage rate and price level change in such a way that real wage rate remains constant & eq^d in lab market is automatically restored.

Thus, with ↑ M^s & consequent change in the price level, S-I eq^d will not be disturbed and therefore deficiency of AD will not arise.

Quantity Theory of Money : [M^s determines price level].

FISHER'S TRANSACTION APPROACH

The quantity theory of money is given by Fisher. This theory tries to explain the role of money in determining price level in the classical system with the help of equation of exchange identity:

$$M V_T = P_T T$$

supply of Money val. of transactions
limits the velocity of Money at current prices

V_T = Average no. of times each ₹ is used in transactions during the period.

M = Qty of Money

P_T = Price index of G & S

T = Volume of transactions [Not only the newly produced goods but also exchange of previously produced goods & services]

For example :- If over a period the volume of transactions in current dollars ($P_T T$) = \$ 3,600 bl & M^S = \$ 300 bl

$$V_T = \frac{P_T T}{M} = \frac{3600}{300} = 12$$

Income version of QTM

$$MV = PY$$

$$V = \frac{PY}{M}$$

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

M = Qty of Money

V = Income Velocity of circulation of Money

→ No. of times average \$ is used in transactions involving current output during a year.

P = Price index

Y = current level of output

The eqⁿ of exchange determines the price level. Fisher assumes that the price level varies:

① Directly with M

② Directly as V

③ Inversely as the vol. of trade done by it (T)

These 3 relationships constitute QTM.

Acc. to classical economics, output (Y) is supply determined & is a measure of real economic activity [that depends upon the amount of resources, Tech & efficiency & due to say's law & wage price flexibility assⁿ] Y remains constant. Money was assumed to be metallic money ~~which~~ such as gold and quantity of money was exogenously controlled by the Monetary Policy Authority. And Fisher argued that V was determined by the payment habits and payment tech. of society such as ① Average length of the pay period, ② practice of using ATM cards etc. Therefore V was considered to be determined by institutional factors & could be regarded as fixed for the SR.

with \bar{V} as predetermined and \bar{Y} fixed from supply side, the eqⁿ of exchange now expresses the proportional r/p b/w exogenously given M^s & the price level.

$$M\bar{V} = P\bar{Y}$$

$$P = \frac{M\bar{V}}{\bar{Y}}$$

This eqⁿ shows the proportional r/p b/w price & Money Supply. If M doubles, P doubles. In this way Money determines the price level.

THE CAMBRIDGE APPROACH TO THE QUANTITY THEORY

Fisher eqⁿ explains the mathematical r/p b/w Money supply & P . But the economic relationship between the 2 was ^(unexplained) explained by Cambridge Approach.

Just read

The Cambridge approach was named after the Cambridge University, Alfred Marshall & A.C Pigou also demonstrated the proportional r/p b/w qty of Money & the agg. price level. Marshall began by focusing on indi decision on the optimal amount of money to hold, & as money is held to avoid inconvenience in money transactions compared with other store of value. But Pigou noted that currency held in hand yield no income, therefore it must be held only so far that the yield in terms of convenience & security outweighs income lost from not investing in productive activity.

Cambridge Eqⁿ

$$M^d = k \underbrace{PY}_{\text{Transaction Level}}$$

k = is the proportion of National income (GDP or PY) held by people to make transaction of goods & services.

M^d = Money demand, assumed to be a proportion (k) of Nominal income (PY). It depends on the level of transaction (PY) which varies with the level of real income (Y). And optimal

prop. of income to hold in the form of money & is assumed to be stable in SR.

In eqⁿ, $M^s = M^d = K P \bar{V}$ → shows prop. M^d b/w P & M^s (constant)
 Price level is determined by the intersection of M^s & M^d .

$$M = M^d$$

$$M = \frac{P Y}{V}$$

$$P = \frac{M V}{Y}$$

M = Money supply
 M^d = demand for Money

Monetary eqⁿ in classical Theory

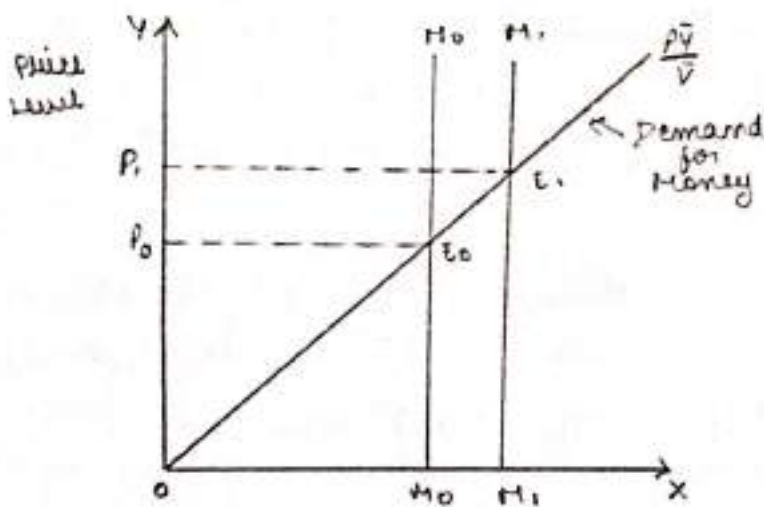


Fig. shows, demand for Money $\frac{P Y}{V}$ is rising straight line which indicates that with V & Y held constant demand for Money increases proportionately to the rise in price level.

• As price level rises people demand more Money for transaction purposes.

Now, if supply of Money M_0 is fixed by central bank, the $M^d = M$ at P_0 price level. Suppose if M^s doubles / increases to M_1 , initially there is excess supply of Money over demand for money at eq^b price level P_0 . Individuals try to reduce their money holdings to the optimal prop. of their income by putting this excess M^s into alternative use of consumption and Investment which increases d^d for commodities. This increase in demand puts upward pressure on prices.

In classical economics language, "too much money chasing too few goods". By keeping K & \bar{V} , new eq^b is reached at (doubled) price level.