## MAHATMA GANDHI CENTRAL UNIVERSITY

MONETARY ECONOMICS: ECON4010

UNIT – 2 (Demand for Money)



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### Tobin's Analysis -

Keynes liquidity preference analysis requires an investor to put all his wealth either in cash or in some other single asset. But, according to Tobin, the real explanation attempts to show the reason for which an investor holds a variety of assets. Tobin formulated a model in which the simultaneous desire to avert risk and to maximize the utility from wealth will lead an individual to choose a diversified portfolio consisting of both money and bonds.

Tobin introduced the concept of risk aversion. The basis idea of risk is that given two assets with some average returns, an investor prefers that asset which has less dispersion or standard deviation.

#### The fact of risk aversion is explained by two things:

a) There is always the risk that an asset with an unstable yield would provide a smaller average returns if it has to be sold before maturity.

b) Income being subject to the law of diminishing marginal utility, the gain of utility to the wealth holder during period of higher yield would be smaller than the loss of utility during period of low yield. If  $\lambda$  represented the part of fund invest in Bond and 'i' represent interest rate and 'g' represent capital gain, the average value of total returns,  $\mu$  will be

$$\mu = \lambda(i + \mu g) - (1)$$



If capital gain is zero, then average value of total returns will depend on  $\lambda$  and i because

$$\mu$$
= $\lambda i$  - (2)

If rate of interest is fixed, there will be no risk. Risk is only due to capital gain or losses. The risk is measured by the standard deviation of capital gain and is designated by  $\sigma g$ .

Thus, the standard derivation of total return ( $\sigma$ ) is represented as

$$\sigma = \sigma \lambda g$$
  
 $\lambda = (\sigma / \sigma g)$ 

Subtracting (1) in (2)

$$\mu = (\boldsymbol{\sigma} / \boldsymbol{\sigma} g)I$$

Hence, it indicates that the average of total return depends upon the rate of interest and the risk of capital gain and losses in the investment in Bond



#### Summary-

The distinction between real and nominal cash balances -. Nominal cash balances are money of the current purchasing power of a unit of money say a rupee or a dollar. A Real cash balances are money of some base year purchasing power. They are given by nominal cash balances deflated by the price level. That is, if M and P are the nominal money and price level index number, then real cash balances are given by M/P.

This is measured in terms of the purchasing power of money in the year which serves as the base year of the price index number P.

The Neoclassical theory of the demand for money. The early neoclassical theory of the demand for Money is attributed to the Cambridge economists Marshall and Pigou. The Cambridge approach postulates the following demand for money function. Md = KY

#### Keynes's Theory of the demand for money:

Keynes attributed three motives to the demand for money

- (1)Transaction
- (2)precautionary
- (3)Speculative.

Keynes made the demand for money a function of two variables namely Income (Y) and the rate of interest (r). The revised form of the Keynesian demand function for money. Md = L(Y, r)

(4) It is hypothesized that Md is an increasing function of Y and a declining function of r.



#### Baumol Tobin's Theory of the demand for money.

Here the problem of transaction demand for money is the problem of determining the

optimum amount of cash the individual will hold. This can also be seen as the problem of minimizing the total cost of financing transactions.

Friedman's Theory of the demand for money: (M/P)

D = f (y, w, r m, r b, r e, p, e, u)



# Thank you

