

# **MACRO ECONOMICS INTRODUCTION**

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# MACRO ECONOMICS

Evolution of Macro Economics

Ragner Frisch - Oslo University 1933

1936 - KEYNES - GTEIM

Revolution

of Macro Economics -Father

## Meaning and definition

- ❖ Study of total output, employment and price level
- ❖ **K.E Boulding** - Macroeconomics is that part of economics which studies the overall averages and aggregates of the system
- ❖ **Subject Matter of Macro Economics** : Determination of total output, growth of National Income, Price level of goods and services ,total employment of resources, business fluctuations
- ❖ **Areas under consideration:** Employment, Trade Cycle, International Trade, Economic Growth, DLY
- ❖ Theory of income and employment- **INCOME ANALYSIS**

Macro Economics attempts to answer the **Big questions of economic life**

--- full employment or unemployment

- - Inflation

-- -- Rate of economic growth

--- Price level stability-

# ECONOMICS

MACRO  
ECONOMI  
CS

MICRO  
ECONOMICS

## DIFFERENCES

- Individual Unit/ Aggregates
- Partial Equilibrium Analysis/ General Equilibrium Analysis
- .....
- ..... ( Basis of the Differences )

# **SCOPE OF MACRO ECONOMICS**

**Functioning of the Economy**

**Formulation of Economic Policies**

**Solution to the problem of unemployment**

**National Income Estimates**

**Growth of the Economy**

**Analysis of the Monetary Problems**

**Business Fluctuations**

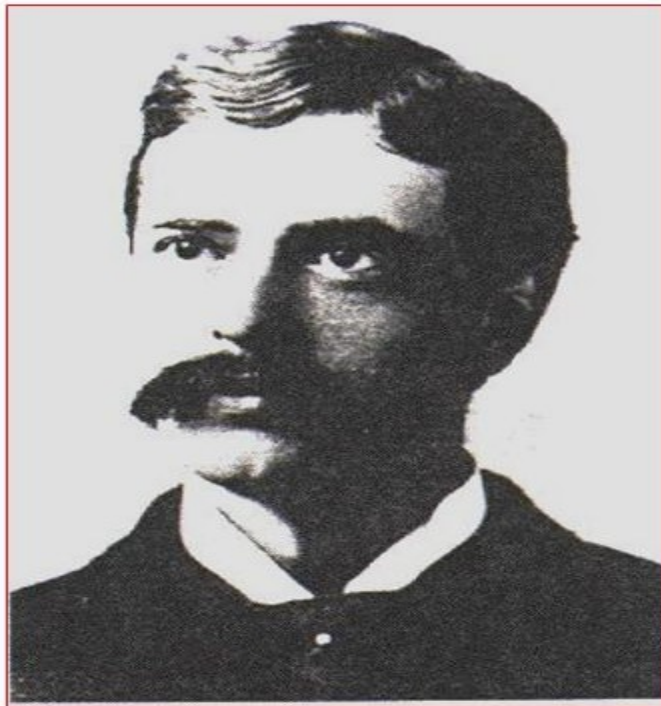
**LIMITATIONS OF MACRO ECONOMICS.....**

## Three Pillars of Classical Economic Thought

1. Full Employment
2. Say's Law of Market
3. Wage Price Flexibility

# Equation of Exchange – Irving Fisher

## Irving Fisher



- 1867-1947.
- One of the earliest American neo-classical economists
- Noted for:
  - The Quantity Theory of Money ( $MV = PT$ )
  - Theory of Interest
  - Just days before the October 1929 Wall Street crash, he was quoted as saying that stock prices were not over inflated but, rather, had achieved a “new, permanent plateau.”



## Equation of Exchange – Irving Fisher

$$MV = PT$$

**MV- Total Expenditure on goods and services - money payment , supply side of money**

**PT – Total receipts from the sale of final goods and services– demand side of money**

**Modified Version ---- inclusion of credit money , DD of Banks in addition with primary money.**

## STATEMENT:

The quantity theory of money states that "There is a direct relationship between the quantity of money in an economy and the level of prices of goods and services sold."

And,

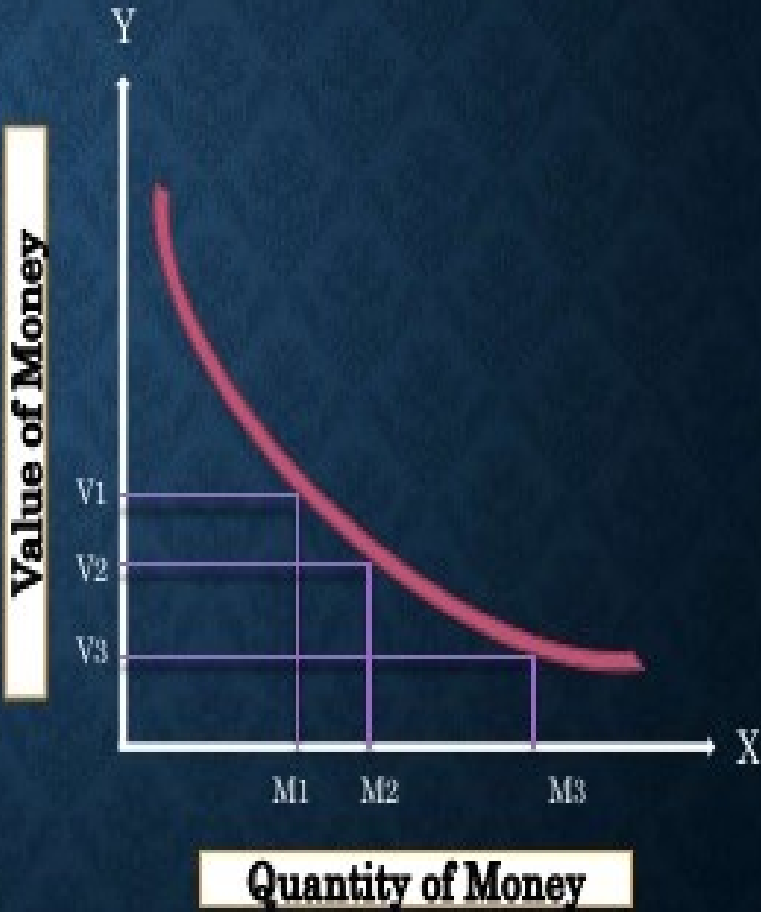
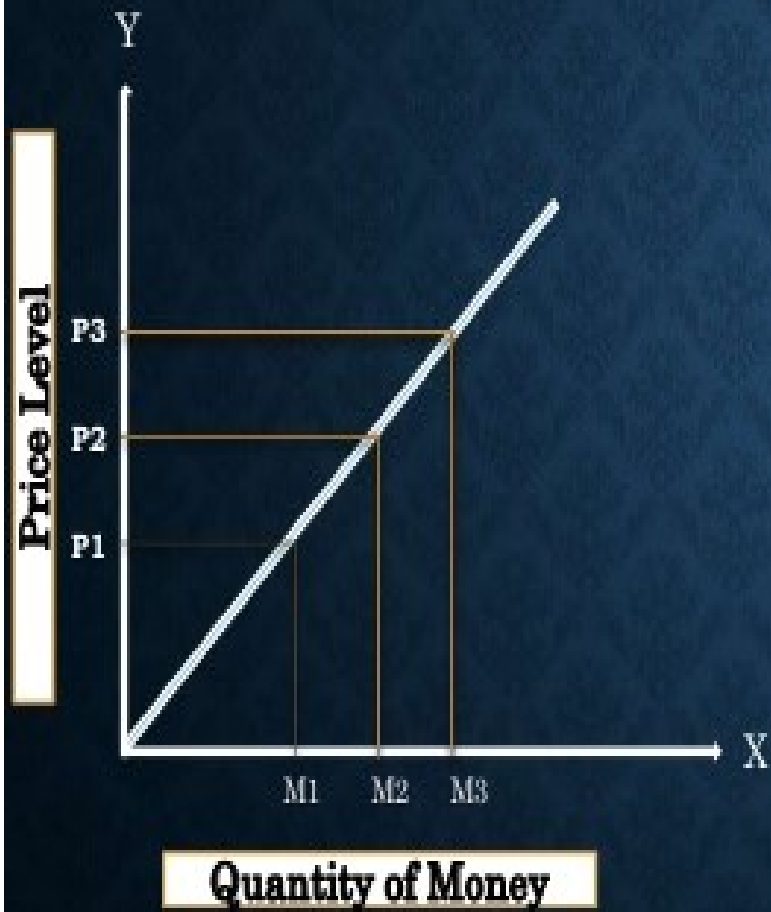
The quantity theory of money states that "There is an inverse relationship between the quantity of money in an economy and the value of the money."

That means,

$$\text{Quantity of money} = \frac{1}{\text{Value of Money}}$$

Quantity of money  $\propto$  Prices of Goods and Services.

## GRAPH ILLUSTRATION:





= Rs.1



= Rs.65

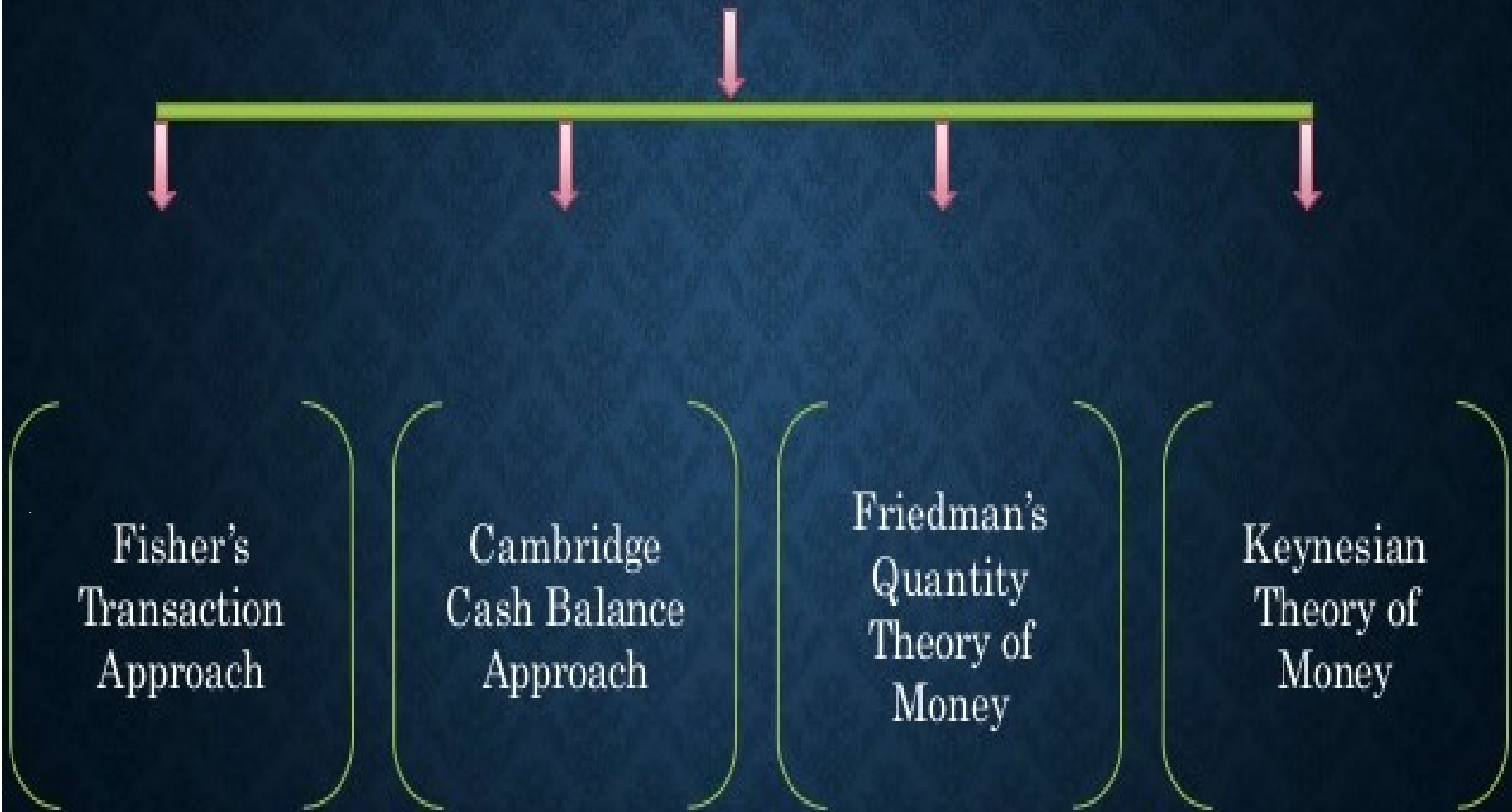


Quantity of money



Prices of goods and services

# Quantity Theory of Money



Among these approaches, Fisher's Transaction Approach is widely used and most popular.

It was developed by an American Economist Irving Fisher in 1911, in his famous book "The Purchasing Power Of Money." Sometimes it is called as "Neo- Quantity Theory."

# FISHER'S TRANSACTION APPROACH

Fisher's transaction approach to the Quantity Theory of Money is explained with the following Equation of Exchange.

$$MV = PT$$

Where,

M = Supply of Money

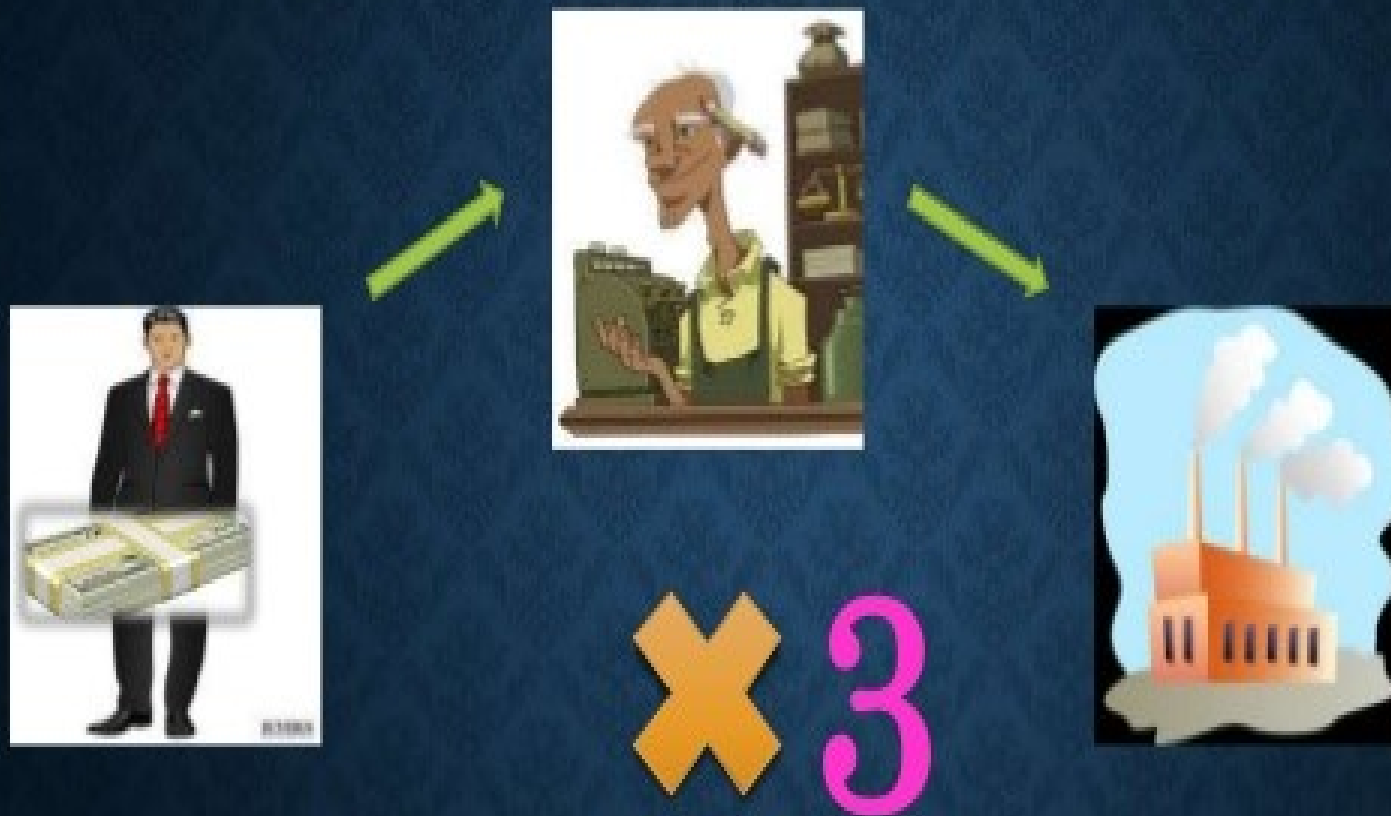
V = Velocity of Money

P = Price level of goods and services

T = Total amount of goods and services

MV = Supply of Money

PT = Demand of Money



Velocity of Money is defined as the number of hands of exchange of money or  
Velocity of Money is defined as the number of times money changes hands.

Money supply is the total value of monetary assets available in an economy at a  
specific time. It includes currency in circulation and demand deposits.

But later Fisher modified the Equation of Exchange as,

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

Where,

$M'$  = Bank Deposits

$V'$  = Velocity of Money (Transfer in Bank)

Under this Approach,

$V$ ,  $M'V'$  and  $T$  are unchanged or constant. If these three remains constant,

$M \propto P$



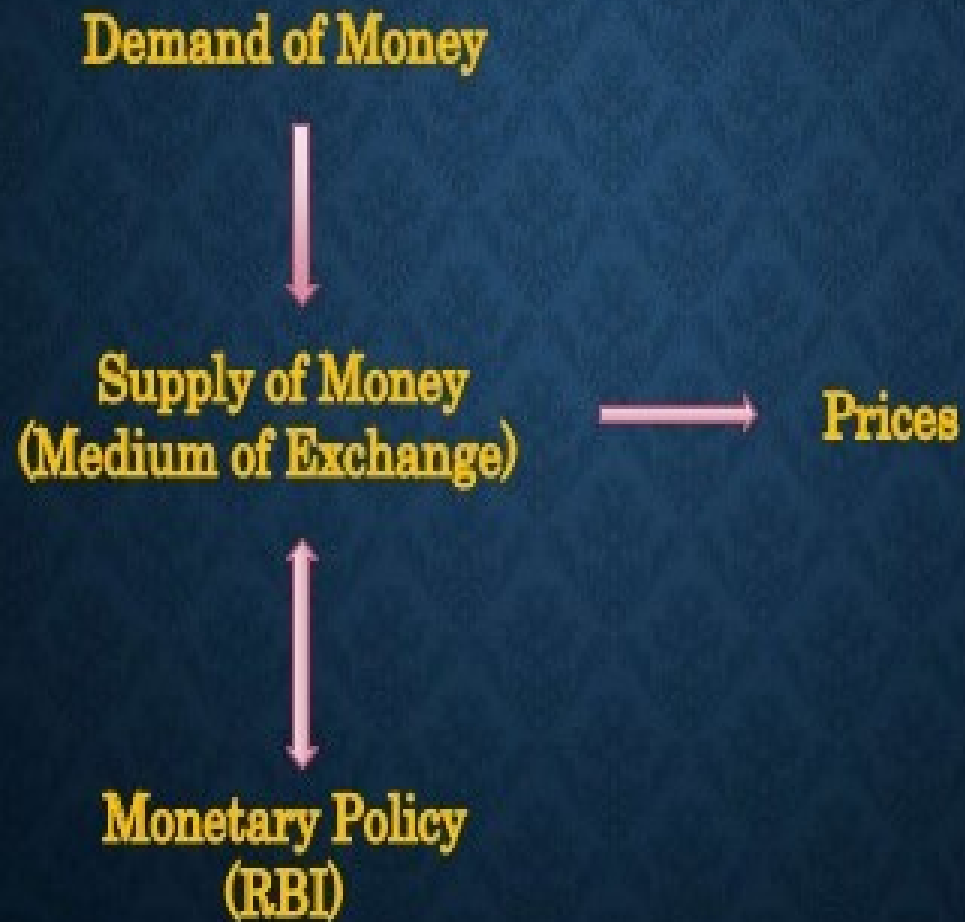
# ASSUMPTIONS OF FISHER'S TRANSACTION APPROACH

- ❖ Constant Velocity of Money
- ❖ Constant Volume of Trade and Transaction
- ❖ Price Level is a Passive Factor
- ❖ Money is only a Medium of Exchange
- ❖ Direct Relationship between  $M$  and  $M'$
- ❖ Long Period

(When  $V$ ,  $M'V'$  and  $T$  are constant for long period of time, then Money supply is directly proportional to Price level.)

# CONCLUSION:

1)



**2)** There is a relationship between Money supply, Inflation and Monetarism. Increase in Money supply for short period of time can offer a quick-fix boost to a staggering economy in need of increased production. In the long term, increase in money supply have affect on real economic activity (Production, Employment level, Spending, etc.) that tends to decline in economy of a country.

**3)** According to QTM, if the amount of money in an economy doubles, price levels also double, causing inflation (the percentage rate at which the level of prices is rising in an economy). Thus, the consumer pays twice as much for the same amount of the good or service.

**4)** Inflation affect the purchasing power of the consumer. It is the value of a currency expressed in terms of the amount of goods or services that one unit of money can buy. Purchasing power is important because, all else being equal, inflation decreases the amount of goods or services you would be able to purchase.

# **Introduction:**

- The Cambridge cash balance approach is a version of quantity theory of money.
- It is popular in Europe especially in England.

## **Quantity theory of money:**

- Developed in 19<sup>th</sup> and 20<sup>th</sup> centuries.

## **Cambridge Cash balance approach:**

- It is explained and developed by four Cambridge economists.

# Cambridge Equation of Cash Balance

## Approach:

- **Equation of Marshall :**  
 $M = kPY$
- **Equation of Pigou:**  
 $P = kR/M$
- **Equation of Robertson:**  
 $P = M/kT$
- **Equation of Keynes:**  
 $n = pk$

# Optimal Cash Balance Approach:


The optimal cash balance  $c^*$  is defined as;

Where,

$c^*$ =optimum amount of cash to be raised by selling marketable securities or by borrowing



## **Advantages of Cambridge Equation of Cash Balance Approach:**

- Basis of liquidity preference
  - Complete theory
  - Discards the velocity of money
  - Based on macroeconomic factors
  - Simple equation
  - Applicable under all circumstances
- 

# Superiority of Cambridge Quantity theory:

Theme of Difference	Cambridge Version	Fisher's Version
1. Humanistic approach	It emphasize K or cash balance and consider human motives as an important factors affecting the price level.	It does not explain how changes in the volume of money bring about
2. Mode of thinking	It is concerned with the level of income.	It is concerned with the total number of transaction
3. Realistic approach	It emphasizes the psychological factors or subjective valuation as chief determinants of demand for money	It emphasizes on the institutional objective and technological factors only.
4. Convenience of equation	Cambridge equation $p=KT/M$	The cash transaction approach $p= MV/T$
5. Foundation of theory	The cash balance theory has shown the seeds of the Keynesian liquidity preference.	It only shows the precautionary and transaction motives.



## Pitfalls of Cash Balance Approach:

- Price Level does not Measure the Purchasing Power
- More Importance to Total Deposits
- Neglects other Factors
- Neglect of Saving Investment Effect
- $k$  and  $Y$  not Constant
- Fails to Explain Dynamic Behavior of Prices



## **Pitfalls of Cash Balance Approach:**

- Neglects Interest Rate
  - Neglect of Goods Market
  - Neglects Real Balance Effect
  - Elasticity of Demand for Money not Unity
  - Neglects Speculative Demand for Money
-

## **Conclusion:**

- The popularity of cash balance approach is attributable, in part, to the simplicity of the benefit accrual.
- Corporate sponsors are increasingly turning to cash balance plans as a means of providing attractive retirement benefits to employees while avoiding the drawbacks of traditional DB plans.
- It is very easy for employees to understand the annual growth in their account balance.
- The cash balance funding method would apply the same
- Commonsense approach to the funding and expensing of the pension plan.