

Vivekanand College, Kolhapur (Autonomous)

Department of Economics

Subject- Business Economics (Macro)

Topic- Money Multiplier and High-powered money

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Money Multiplier and High-Powered Money

- The role of these two factors in the determination of money supply in the economy.

High Powered Money-

- It denoted by 'H'.
- It consists
 - 1) Cash reserves with the commercial banks
 - 2) Currency held by the public
 - 3) Required reserves of the commercial banks to be maintained with the RBI

So, $H = C + RR + ER$



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Where,

H = the amount of high powered money

C = currency held by the public

RR = cash reserves of currency with the banks

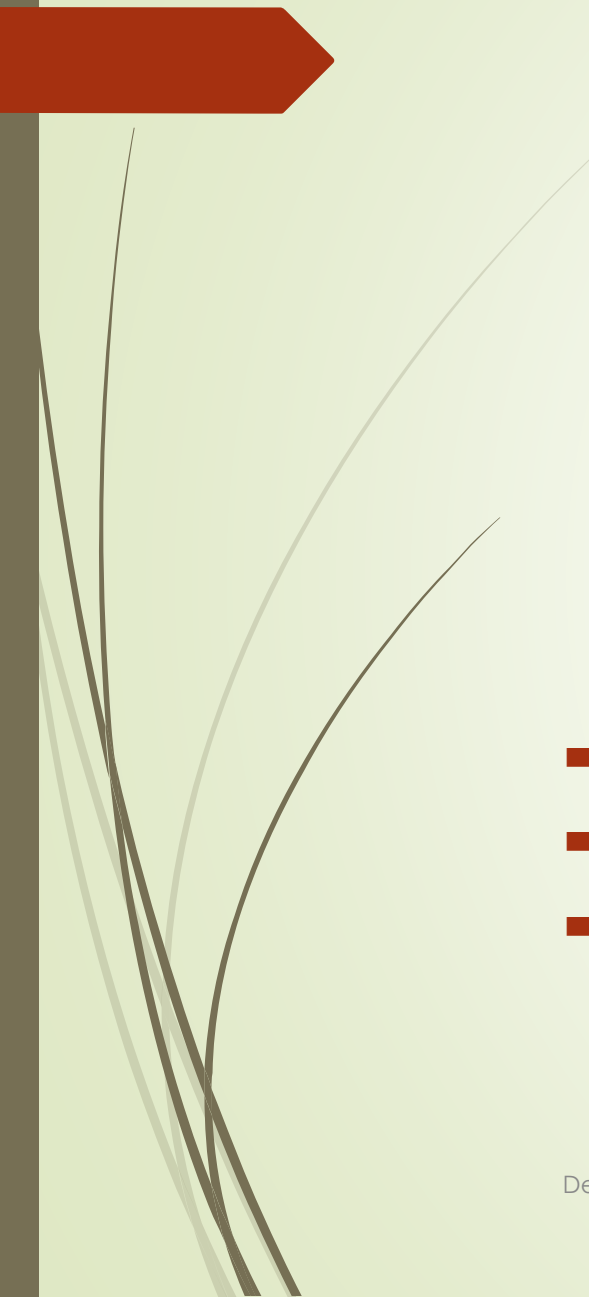
ER = important reserves or other reserves

Money Multiplier-

- this concept is part of credit creation or money creation.
- Through this process banks are able to create credit which is far excess of initial deposits.
- This concept is based on two main assumptions-
 1. Entire commercial banking system is one unit and is termed as Banks.
 2. All the receipts and payments are routed through banks.
- Understanding Money Multiplier with the help of example-

Initial deposit at bank Rs. 1000

$LRR/CRR = 20\%$



| | Deposit | Loan | Cash Reserve |
|-----------------|---------|------|--------------|
| Initial Deposit | 1000 | 800 | 200 |
| Round- I | 800 | 640 | 160 |
| Round- II | 640 | 512 | 128 |
| - | - | - | - |
| - | - | - | - |
| - | - | - | - |
| Total | 5000 | 4000 | 1000 |

- Total deposits become 5 times of initial deposits.
- 5 times is the value of money multiplier.
- Deposit creation comes to end when the total reserves will be equal to initial deposits.

Then how to calculate money multiplier?

Money Multiplier refers to the amount of money that banks are able to create in the form of deposit.

$$\text{MM} = 1/\text{LRR} \quad \text{or} \quad \text{MM} = 1/\text{CRR}$$

Q.1 calculate total deposits created, if initial deposit is Rs. 1000 crore, and LRR is 12.5%.

$$\text{MM} = 1/\text{LRR}$$

$$\text{MM} = 1/0.125 \quad \text{MM} = 8 \text{ times}$$

Total deposits = Initial deposits * Money Multiplier

$$\text{TD} = 1000 * 8 \quad \text{TD} = 8000 \quad \text{that is Rs. 8000 crores}$$

Q.2 If total deposits created by commercial banks is Rs. 12,000 crores. LRR is 25% calculate initial deposits.

$$MM = 1/LRR$$

$$MM = 1/0.25 \quad \mathbf{MM = 4 \text{ times}}$$

$$\text{Total deposits} = ID * MM$$

$$12,000 = ID * 4$$

$$ID = 12,000/4$$

$$ID = 3000 \quad \mathbf{\text{that is Rs. 3000 crores.}}$$