

## **MONEY & BANKING**

### **PART-2**

#### **MONEY SUPPLY IN INDIA -**

Simply the money supply is the total stock of money that is in circulation in an economy on any specific day. It includes all the notes, coins and demand deposits held by the public on such a day. Such as money demand, money supply is also a stock variable

As the stock of money kept with the government, central bank, etc. is not in actual circulation in the economy, and hence does not form a part of the monetary supply. So this is not taken into account in money supply.

#### **SOURCES OF MONEY SUPPLY**

There are three main sources of money supply in our economy. They are the producers of the money and are responsible for its distribution in the economy.

- i. The government who produces all the coins and the one rupee notes;
- ii. The Reserve Bank of India (RBI) which issues all the paper currency;
- iii. And commercial banks as they create the credit as per the demand deposits.

#### **MEASURES OF MONEY SUPPLY IN INDIA**

To measure the money supply in India, Reserve Bank of India has developed four alternative measures of money supply. These four alternative measures of money supply are labeled M1 (Narrow Money), M2 (Narrow Money), M3 (Broad Money) and M4 (Broad Money). The RBI will collect data and calculate and publish figures of all the four measures. Let us take a look at how they are calculated.

#### **M1 (NARROW MONEY)**

M1 includes:

1. All the currency notes being held by the public on any point of time.
2. It also includes all the demand deposits with all the banks in the country, both savings as well as current account deposits.
3. It also includes all the other deposits of the banks kept with the RBI.

Paper money and coins are the most significant component of a nation's money supply. M1 money is a country's basic money supply that's used as a medium of

Exchange. M1 money is the money supply metric most frequently utilized by economists to reference how much money is in circulation in a country. M1 is so narrowly defined, because, very few components are classified as M1.

So,

$M1 = CC + DD + \text{Other Deposits}$

## **M2 (NARROW MONEY)**

M2, also narrow money, includes:

1. All the inclusions of M1
2. It also includes the saving deposits of the post office banks.

M2 is a measure of the money supply that includes cash, deposits, and easily convertible near money. M2 is a broader measure of the money supply than M1, which just include cash and deposits. M2 is closely watched as an indicator of money supply and future inflation, and as a target of central bank monetary policy. These assets are less liquid than M1 and not as suitable as exchange mediums, but they can be quickly converted into cash or checking deposits.

So,

$M2 = M1 + \text{Savings Deposits of Post Office Savings}$

## **M3 (Broad Money)**

M3 consists of all currency notes held by the public, all demand deposits with the bank, deposits of all the banks with the RBI and the net Time Deposits of all the banks in the country. The M3 classification is the broadest measure of an economy's money supply. It emphasizes money as a store-of-value more so than as a medium of exchange — hence the inclusion of less-liquid assets in M3. The M3 measurement includes assets that are less liquid than other components of the money supply and are referred to as "near, near money,"

So,

$M3 = M1 + \text{time deposits of banks.}$

$M3 = M1 + \text{Time deposits with the banking system} = (\text{Net bank credit to the Government} + \text{Bank credit to the commercial sector} + \text{Net foreign exchange assets of the banking sector} + \text{Government's currency liabilities to the public} - \text{Net non-monetary liabilities of the banking sector (Other than Time Deposits)}).$

## **M4 (BROAD MONEY)**

M4 is the widest measure of money supply that the RBI uses. It includes all the aspects of M3 and also includes the savings of the post office banks of the country. It is the least liquid measure of all of them.

So,

$M4 = M3 + \text{All deposits with Post office Savings Banks}$

## AT A GLANCE

**M1**=currency held by public + Demand deposits + other deposits with Reserve Bank of India.

**M2**=M1+saving deposits with post office saving bank

**M3**=M1+net time deposit with the bank

**M4**=M3 + total deposits with post office saving bank excluding national saving certificate.

## HIGH POWERED MONEY –

High powered money or powerful money refers to that currency that has been issued by the Government and Reserve Bank of India. Some portion of this currency is kept along with the public while rest is kept as funds in Reserve Bank. High powered Money (H) includes currency with Public (C), important reserves of Commercial banks and other reserve (ER). In other words, it consist of two things: Currency held by the public (C) + Cash reserves with banks (CR) **H =C+CR**

## MONEY MULTIPLIER –

The monetary base (The monetary base is either held by the public as currency or held by the banks as reserves) has a multiplier effect on the money supply. How many times the total deposits would be of the initial deposit is determined by the money multiplier. Money multiplier is depends on the value of Legal Reserve Ratios. Let us understand with an example –

The multiple called the money or deposit multiplier, is:

Money multiplier =  $1/ \text{LRR}$

If LRR is 20 percent or 0.2

Therefore,

Money multiplier =  $1/(20/100)$

=  $1/0.20$

Money Multiplier = 5

## TOPIC – CREDIT CREATION BY COMMERCIAL BANKS

Money is anything usable for undertaking transactions i.e. receipts and payments. The stock of such money in an economy is called money supply. The basic measure of money supply has two components: currency with public and demand deposits in commercial banks. The currency is created by the central bank (Reserve Bank of India in India) and is called **High Powered Money**.

Demand deposits are created by the commercial banks and are called **Bank money**.

Commercial banks receive deposits from the public. The depositors are free to withdraw, in part or in full, their deposit amounts by writing cheques. The banks use the money in these deposits to give loans. These functions of the commercial banking system are the basis of deposit creation. How much are the deposits created is determined by the amount of initial deposits by the public and the Legal Reserve Ratio. The quantitative outcome is called money multiplier.

**INITIAL DEPOSIT** – It refers to the deposit, which is made for the first time or it is fresh deposit. (It is not included amount deposited by taking loan)

**Legal Reserve Ratio (LRR)** – It is the minimum ratio of deposit legally required to be kept as cash by the banks. LRR includes:

- (i) **Cash Reserve Ratio** – It is the minimum proportion of cash reserves which is kept by commercial banks with the central bank against its total deposits; and
- (ii) **Statutory Liquidity Ratio** – It is that proportion of the total deposits which a commercial bank has to keep with itself in the form of liquid assets (i.e. cash, gold and unencumbered approved securities). It is assumed that all the money that goes out of banks is redeposit into the banks.

Let us explain the process of money creation and the measure of money multiplier. Note that money creation is also called 'deposit creation' or 'credit creation'.

## **THE PROCESS OF MONEY CREATION**

Let us assume that the entire commercial banking system is one unit. Let us call this one unit simply 'banks'. Let us also assume that all receipts and payments in the economy are routed through the banks. One who makes payment does it by writing cheque. The one who receives payment deposits the same in his deposit account.

Suppose initially people deposit Rs. 10000. The banks use this money for giving loans. But the banks cannot use the whole of deposit for this purpose. It is legally compulsory for the banks to keep a certain minimum fraction (Percentage of deposits) of these deposits as cash. The fraction is called the Legal Reserve Ratio (LRR). The LRR is fixed by the central bank.

Why are the banks required to keep only a fraction of deposits as cash reserves? What will banks do if the demand for cash withdrawn is more than cash reserves at some point of time? There are two reasons:

First the banking experience has revealed that not all depositors approach the banks for withdrawal of money at the same time, and also that normally they withdraw a fraction of deposits.

Secondly, there is a constant flow of new deposits for withdrawal of cash, it is sufficient for banks to keep only a fraction of deposits as cash reserve.

Let us now explain the process. Suppose the initial deposits in banks is Rs. 10000 and the LRR is 20 percent. Further suppose that banks keep only the minimum required i.e. Rs. 2000 as cash reserve, no more no less – Banks are now free to lend the remainder Rs. 8000. Suppose they lend Rs. 8000. What banks do is to open deposit accounts in the names of the borrowers who are free to withdraw the amount whenever they like. Suppose they withdraw the whole of amount for making payments.

Now, since all the transactions are routed through the banks, the money spent by the borrowers comes back into the banks into the deposit accounts of those who have received this payment.

This increases demand deposits in banks by Rs. 8000. It is 80 percent of the initial deposit. These deposits of Rs. 8000 have resulted on account of loans given by the banks. In this sense the banks are responsible for money creation. With this round increase in total deposits is now Rs. 18000 (=10000+8000).

When banks receive new deposit of Rs. 8000, they keep 20 percent of it as cash reserves and use the remaining Rs. 6400 for giving loans. The borrowers use these loans for making payments. The money comes back into the accounts of those who have received the payments. Bank deposits again rise, but by a smaller amount of Rs. 6400. It is 80 percent of the last deposit creation. The Total deposits now increase to Rs. 24400 (=10000+8000+6400). The process does not end here.

The deposit creation continues in the above manner. The deposits go on increasing round after round but each time only 80 percent of the last round deposits. At the same time cash reserves go on increasing, each time 80 percent of the last cash reserve. The deposit creation comes to end when total cash reserves become equal to the initial deposit. The total deposit creation comes to

Rs. 50000, five times the initial deposit as shown in the table below:

### **Deposit Creation By Commercial Banks**

	Deposits (Rs.)	Loans (Rs.)	Cash Reserves (LRR = 0.2)
Initial	10000	8000	2000
Round I	8000	6400	1600
Round II	6400	5120	1280
Round III	-----	-----	-----
Round IV	-----	-----	-----
Round V	-----	-----	-----
	50000	40000	10000

### **Money Multiplier**

How many times the total deposits would be of the initial deposit is determined by the LRR. The multiple called the money or deposit multiplier, is:

$$\text{Money multiplier} = 1 / LRR$$

In our above illustration the LRR is 20 % or 0.2 (20/100) therefore,

$$\text{Money multiplier} = 1 / (20/100)$$

$$\text{Money multiplier} = 1 / 0.20$$

$$\text{Money multiplier} = 5$$

The total money creation is thus:

$$\text{Money Creation} = \text{Initial Deposit} \times 1/LRR$$

$$\text{Money Creation} = 10000 \times 1/(20/100)$$

$$\text{Money Creation} = 10000 \times 1/0.2$$

$$\text{Money Creation} = 10000 \times 5$$

$$\text{Money Creation} = 50000$$

Note that lower the LRR, higher the Money Multiplier and more the Money Creation.

If the LRR, = 0.1,

The money multiplier is 10 (=1/0.1).

$$\text{Money Creation} = 10000 \times 10$$

$$\text{Money Creation} = 100000$$

If the LRR is 0.4,

The money multiplier is 2.5 (=1/0.4)

$$\text{Money Creation} = 10000 \times 2.5 = 25000$$

**Various Rates – as on 16.04.2020**

Policy Repo Rate	: 4.40%
Reverse Repo Rate	: 4.00%
Bank Rate	: 4.65%
CRR	: 3%
SLR	: 18.00%

Source - [www.rbi.org.in](http://www.rbi.org.in)