2.2 Money Creation by Commercial Banking System: Working of Money Multiplier/ Lending Process of Banks

Process of Money Creation by Commercial Banks

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 money creation. Note that money creation is also called 'deposit creation' or 'credit creation'.

Commercial banks cannot use the total deposits for giving loans. It is legally compulsory for the banks to keep a certain minimum fraction of *net total demand and time deposits* as legal reserves. The fraction is called the **Legal Reserve Ratio (LRR)**.

LRR is the minimum reserve that a commercial bank must maintain as per the instructions of the central bank.

Top Tip

Legal Reserve Ratio is also called Reserve Ratio or Required Reserve Ratio or Reserve Deposit Ratio or Legal Reserve Deposit Ratio.

The LRR is fixed by the Central Bank. It has two components:

(i) **Cash reserve ratio (CRR):** It is the fraction of net total demand and time deposits that commercial banks must keep as cash reserves with the Central Bank.

(ii) **Statutory liquidity ratio (SLR):** It is the fraction of net total demand and time deposits that commercial banks must keep with themselves in the form of specified liquid assets.

How much are the deposits created is determined by *primary deposits* and *Legal Reserve Ratio* (LRR). Primary deposits refer to initial deposits with the commercial banks.
Given the amount of primary deposits (or initial deposits) and the legal reserve ratio (LRR), total deposits creation (or credit creation or money creation) will be:

Total credit creation (or money creation) = Initial deposits × 1/Legal Reserve Ratio

Money creation (or deposits creation or credit creation) is a process by which a commercial bank creates total deposits number of times the primary deposits.

Process of money creation (or deposits creation or credit creation) is based on the following assumptions:

(i) There is single banking system in the economy.

(ii) All transactions are routed through banks. One who makes payment does it by writing cheque. The one who receives payment deposits the same in his deposit account.

Numerical Example

Suppose customer deposits ₹10,000 in bank and the legal reserve ratio (LRR) proposed by the Central Bank is 20%. Bank has to pay interest on this amount for which bank should lend this money to someone. A part of the amount is to be retained with bank to meet its customers' obligations. Since LRR is 20%,the bank will keep 20% of deposits as reserves, i.e., ₹2,000 and will lend the remaining 80%, i.e. ₹8,000. Those who borrow will spend this money and same ₹8,000 will come back to bank in the form of deposits. This raises the total deposits to ₹18,000 now. Bank again keeps 20% of ₹8,000,i.e. ₹1,600 as reserves and lend ₹6,400 to those who needs. This will further raise the deposits with bank. In this way deposits will go on increasing @ 80% of the last deposit.

Top Tip

The deposits creation comes to an end when total reserves become equal to the initial deposit,i.e. ₹10,000.

Deposits creation by commercial bank (with initial deposits ₹10,000 and LRR 20%)

Rounds	Deposits (₹)	Loans (₹)	Reserves (₹)
I	10,000	8,000	2,000
II	8,000	6,400	1,600
III	6,400	5,120	1,280
⋮	⋮	⋮	⋮
Total	**50,000**	**40,000**	**10,000**

Total deposits creation (or credit creation or money creation) = Initial deposits × 1/LRR

= ₹10,000 × 1/0.2

= ₹10,000 × 5

= ₹50,000

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

Money multiplier = 1/Legal Reserve Ratio

In our example, Legal Reserve Ratio is 20%, therefore, money multiplier = 1/0.2 = 5

Thus, the total deposit creation is 5 times the initial deposit.

Money Multiplier – Its role in determining credit creation power of banks

Meaning

Money Multiplier (or Credit Multiplier or Deposit Multiplier) is the number by which total deposits can increase due to a given change in deposits.

Money Multiplier (or Credit Multiplier or Deposit Multiplier) is inversely related to legal reserve ratio.

$$\text{Money multiplier} = 1/\text{Legal Reserve Ratio}$$

Money multiplier measures the amount of money that the banks are able to create in the form of total deposits with every initial deposit.

Role in determining credit creation power of banks

The credit creation by commercial banks depends on money multiplier. There is a direct relationship between money multiplier and total credit creation by commercial banks.

Lower the money multiplier, lesser will be total credit creation by the commercial banking system and *vice-versa*.

$$\text{Total credit creation} = \text{Initial deposits} \times \text{Money Multiplier } (1/\text{LRR})$$

Numerical Example: Suppose the LRR is 20% and initial deposit is ₹10,000.

Money multiplier = 1/LRR = 1/0.20 = 5; and Total credit created = ₹10,000 × 5 = ₹50,000

Whereas, suppose LRR is increased by the Central Bank to 50% and initial deposits remain the same, i.e. ₹10,000.

Then, Money multiplier = 1/0.50 = 2; and Total credit created = ₹10,000 × 2 = ₹20,000.

Direct relationship between money multiplier and credit creation

Legal Reserve Ratio	Money multiplier (= 1/LRR)	Credit creation = Initial deposits × 1/LRR
20%	1/0.20 = 5	₹10,000 × 5 = ₹50,000
50%	1/0.50 = 2	₹10,000 × 2 = ₹20,000

Thus, with the same initial deposit total credit creation decreases with a decrease in the value of money multiplier.

Legal Reserve Ratio – Its influence in the process of credit creation by banks

Legal Reserve Ratio (LRR) is the minimum reserves that a commercial bank must maintain as per the instructions of the Central Bank.

Credit creation is inversely related to the legal reserve ratio.

Total credit creation (or money creation) = Initial deposits × 1/Legal Reserve Ratio

Higher the legal reserve ratio, lesser will be the credit creation by the commercial banking system and vice-versa.

Numerical Example: Suppose the LRR is 20% and initial deposit is ₹10,000.

Total credit creation = Initial Deposits × 1/LRR = 10,000 × 1/0.2 = 10,000 × 5 = ₹50,000

Now suppose, if the LRR is increased by the Central Bank to 50% and initial deposits remain the same.

Total credit creation = Initial Deposits × 1/ LRR = 10,000 × 1/0.5 = 10,000 × 2 = ₹20,000.

Inverse relationship between LRR and credit creation

Legal Reserve Ratio	Credit creation = Initial deposits × 1/LRR
20%	10,000 × 1/0.2 = 10,000 × 5 = ₹50,000
50%	10,000 × 1/0.5 = 10,000 × 2 = ₹20,000

Thus, any increase in LRR will decrease the credit creation power of the commercial banks (banking system).

Key Terms

Legal Reserve Ratio (LRR) – It is the minimum reserve that a commercial bank must maintain as per the instructions of the central bank.

Cash reserve ratio (CRR) – It is the fraction of net total demand and time deposits that commercial banks must keep as cash reserves with the Central Bank.

Statutory liquidity ratio (SLR) – It is the fraction of net total demand and time deposits that commercial banks must keep with themselves in the form of specified liquid assets.

Money creation (or deposits creation or credit creation) – It is a process by which a commercial bank creates total deposits number of times the primary deposits.

Primary deposits – It refers to the initial deposits with commercial banks.

Money Multiplier (or Credit Multiplier or Deposit Multiplier) – It is the number by which total deposits can increase due to a given change in deposits.