

MACRO ECONOMICS

B.A PART2

REVISION NOTES

TOPIC :- CREDIT MULTIPLIERS

[Money and Banking](#)

Credit Creation

Credit creation separates a bank from other financial institutions. In simple terms, credit creation is the expansion of deposits. And, banks can expand their demand deposits as a multiple of their cash reserves because demand deposits serve as the principal medium of exchange. In this [article](#), we will talk about crediton.

Credit Creation

Demand deposits are an important constituent of [money](#) supply and the expansion of demand deposits means the expansion of money supply. The entire structure of banking is based on credit. Credit basically means getting the purchasing power now and promising to pay at some time in the future. Bank credit means bank loans and advances.

A bank keeps a certain part of its deposits as a minimum reserve to meet the demands of its depositors and lends out the remaining to earn income. The [loan](#) is credited to the account of the borrower. Every bank loan creates an equivalent deposit in the bank. Therefore, credit creation means expansion of bank deposits.



The two most important aspects of credit creation are:-

1. **Liquidity** – The bank must pay cash to its depositors when they exercise their right to demand cash against their deposits.
2. **Profitability** – Banks are profit-driven enterprises. Therefore, a bank must grant loans in a manner which earns higher interest than what it pays on its [deposits](#).

The bank's credit creation process is based on the assumption that during any time interval, only a fraction of its customers genuinely need cash. Also, the bank assumes

that all its customers would not turn up demanding cash against their deposits at one point in time.

Basic Concepts of Credit Creation

- **Bank as a business institution** – Bank is a business institution which tries to maximize profits through loans and advances from the deposits.
- **Bank Deposits** – Bank deposits form the basis for credit creation and are of two types:
 - **Primary Deposits** – A bank accepts cash from the customer and opens a deposit in his name. This is a primary deposit. This does not mean credit creation. These deposits simply convert currency money into deposit money. However, these deposits form the basis for the creation of credit.
 - **Secondary or Derivative Deposits** – A bank grants loans and advances and instead of giving cash to the borrower, opens a deposit account in his name. This is the secondary or derivative deposit. Every loan creates a deposit. The creation of a derivative deposit means the creation of credit.
- **Cash Reserve Ratio (CRR)** – Banks know that all depositors will not withdraw all deposits at the same time. Therefore, they keep a fraction of the total deposits for meeting the cash demand of the depositors and lend the remaining excess deposits. CRR is the percentage of total deposits which the banks must hold in cash reserves for meeting the depositors' demand for cash.
- **Excess Reserves** – The reserves over and above the cash reserves are the excess reserves. These reserves are used for loans and credit creation.
- **Credit Multiplier** – Given a certain amount of cash, a bank can create multiple times credit. In the process of multiple credit creation, the total amount of derivative deposits that a bank creates is a multiple of the initial cash reserves.

Credit creation by a single bank

There are two ways of analyzing the credit creation process:

- a. Credit creation by a single bank
- b. Credit creation by the banking system as a whole

In a single bank system, one bank operates all the cash deposits and cheques. The process of creating credit is explained with the hypothetical example below:

Table 1: Credit Creation by Single Bank

Rounds	Primary Deposits	Cash Reserves ($r = 20\%$)	Credit Creation or Derivative Deposits (ΔD)
1. (Person A)	Rs. 1000 (Initial primary deposits)	Rs. 200	Rs. 800 (Initial excess reserves ΔR)
2. (Person B)	800	160	640
3. (Person C)	640	128	512
4. (Person D)	512	102	410
-	-	-	-
-	-	-	-
Total	5000	1000	4000

Let's assume that the bank requires to maintain a CRR of 20 percent.

- If a person (person A) deposits 1,000 rupees with the bank, then the bank keeps only 200 rupees in the cash reserve and lends the remaining 800 to another person (person B). They open a credit account in the borrower's name for the same.
- Similarly, the bank keeps 20 percent of Rs. 800 (i.e. Rs. 160) and advances the remaining Rs. 640 to person C.
- Further, the bank keeps 20 percent of Rs. 640 (i.e. Rs. 128) and advances the remaining Rs. 512 to person D.

This process continues until the initial primary deposit of Rs. 1,000 and the initial additional reserves of Rs. 800 lead to additional or derivative deposits of Rs. 4,000 (800+640+512+....).

Adding the initial deposits, we get total deposits of Rs. 5,000. In this case, the credit multiplier is 5 (reciprocal of the CRR) and the credit creation is five times the initial excess reserves of Rs. 800.

Multiple Credit Creation by the Banking System

The banking system has many banks in it and it cannot grant loans in excess of the cash it creates. When a bank creates a derivative deposit, it loses cash to other banks.

The loss of deposit of one bank is the gain of deposit for some other bank. This transfer of cash within the banking system creates primary deposits and increases the possibility for further creation of derivative deposits. Here is an illustration to explain this process better:

Table 2 : Multiple Credit Creation by Banking System

Banks	Primary Deposits	Cash Reserves ($r = 20\%$)	Credit Creation or Derivative Deposits (ΔD)
A	Rs. 1000 (Initial primary deposits)	Rs. 200	Rs. 800 (Initial excess reserves ΔR)
B	800	160	640
C	640	128	512
D	512	102	410
-	-	-	-
-	-	-	-
Total	5000	1000	4000

As explained above, the initial deposit of Rs. 1,000 with bank A leads to a creation of total deposits of Rs. 5,000.

Limitations of Credit Creation

While banks would prefer an unlimited capacity for creating credit to increase profits, there are many limitations. These limitations make the process of creating credit non-profitable. Therefore, a bank continues to create additional credit as long as:

- There is a negligible chance of the loans turning into bad debts
- The interest rate that banks charge on loans and advances is greater than the interest that the bank gives to depositors for the money deposited in the bank.

Hence, we can say that the limitations of credit creation operate through shifts in the balance between liquidity and profitability. The factors that affect the creation of credit are:

- The capacity of banks to create credit.
- The willingness of the banks to create credit
- Also, the demand for credit in the market.

Capacity to create credit is a matter of:

- The availability of cash deposits with banks
- The factors which determine their cash deposit ratio

As regards the demand for credit:

- The demand must exist in the market
- Creditworthy borrowers (to avoid bad debts)
- The amount of loan granted should not exceed the paying capacity of the borrower Leakages
- If the banks are unwilling to utilize their surplus funds for granting loans, then the economy is headed towards recession

- If the public withdraws cash and holds it with themselves, then it reduces the bank's power to create credit