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# UNDERSTANDING THE FRACTIONAL RESERVE BANKING SYSTEM

**Lazizbek Nurmuhammadov**
**National University of  Uzbekistant named after Mirzo Ulugbek  Economics major.**
**+998977679555**
laziznurmukhammedov@gmail.com

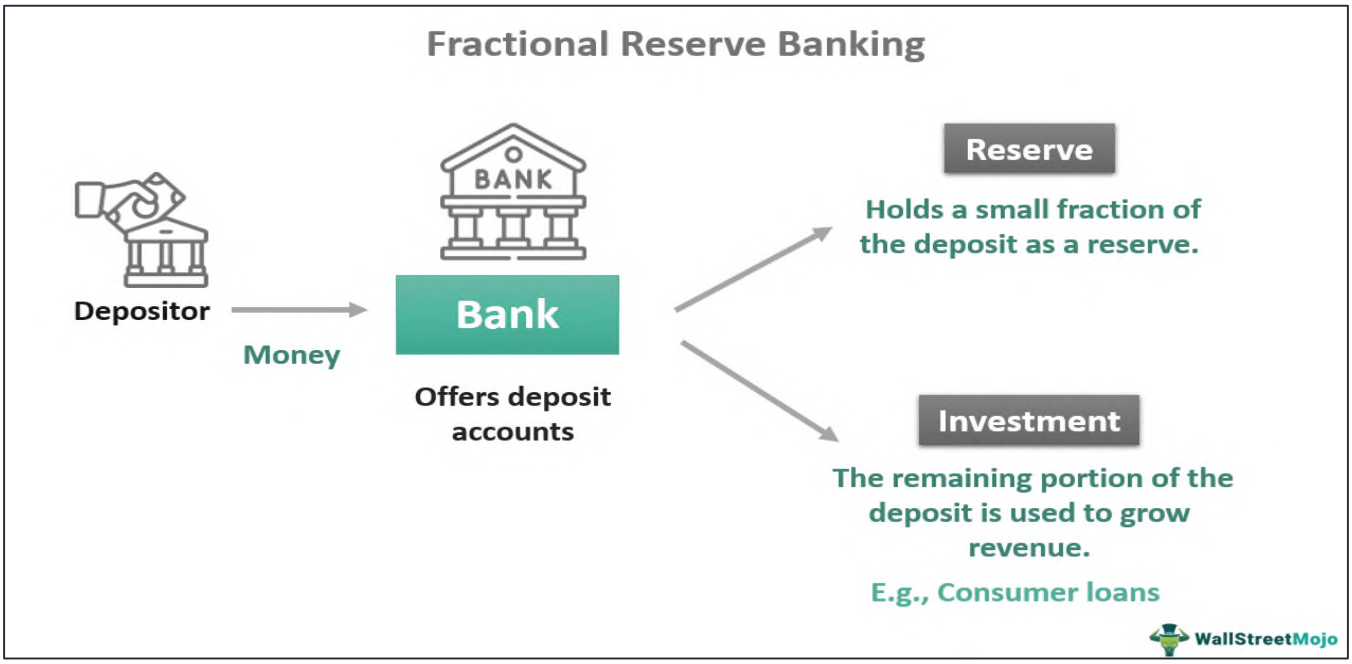
**Abstract.** The Fractional Reserve Banking System is a foundational element of modern finance that is pivotal in money creation, economic growth, and financial stability. This article provides a concise overview of the fractional reserve banking system, outlining its history, key principles, and positive and negative aspects for the financial industry and the economy.

**Keywords:** fractional reserve banking, reserves, money creation, central bank, financial stability, economic growth.

The fractional reserve banking system is a cornerstone of modern financial systems, playing a pivotal role in the functioning of economies worldwide. Fractional reserve banking operates by mandating that a mere portion of the deposited funds must be readily accessible for withdrawal. Banks are obliged to maintain only a specific cash reserve, allowing them to generate loans based on the deposited money. This method serves to bolster the economy by liberating funds for lending purposes.[1] Nowadays, the majority of global financial systems employ the fractional reserve banking model. If we put it simply, *Fractional Reserve Banki*

[1] Mankiw, N.G.:Principles of Economics,pp 600-604, Dryden Press (1997), 293 p.

is a banking system that allows commercial banks to make a profit by borrowing a portion of their customers' deposits, while only a small portion of those deposits are held in the form of real cash and are available for withdrawal. The picture 1 below explains clearly the scheme of how fractional reserve banking works.




***Picture 1. Fractional Reserve Banking Scheme*** [2]

Fractional reserve banking system is one of the main aspects in the macro-regulation of the economic situation, which is the ability of banks to "create" money by increasing the money supply. It is as deposit loans in developed countries with a banking system where rapid growth of the money supply is observed (i.e. the money in the bank is counted as deposited money, so that's it money can also be given on credit). Here it can be called that banks "create" money. When they accept deposits and are liable for that amount, they allocate money according to the reserve ratio, the rest of the deposit is to be used as credits

[2] WallStreetMojo, Fractional Reserve Banking by Gabriel Machado Pureza, URL: https://www.wallstreetmojo.com/fractional-reserve-banking/

for customers. As a result, the banks have a series of such operations so-called credit expansions (i.e. expansion, distribution) occurs. Therefore, "new" (added) money is created. This is how the multiplier mechanism of the money supply is shortened can be seen in the example.[3]

For example, the first bank deposited 100 currency units, and at the same time, the central bank reserve capital is equal to 20%. In it, from the requirement of mandatory reserves in the amount of 20 currency units (20% of 100 currency units), the bank lends 80 currency units (100-20). By paying off various bills on the loan taken by customers, as a result, it becomes a deposit of the second bank. This bank reserve then diminishes to 16 currency units by (20% of 80 currency units), and 64 currency units (80-16) will be credited. This is money the amount has passed through all its account payment operations and now remains a deposit of the third bank. So from the current bank, the initial amount of money that dissolves when transferring to the bank is not in bank accounts it does not melt without any residue. As a result, starting with "chain-like reactions" this money will increase several times. Even in our brief example only the amount of "new" money sent to the third bank is more or less not 144 units of money (80+64). The growth of the money supply is maximum and the coefficient is called the money multiplier. Now in our example, it is equal to 5 (due to the required reserve norm equal to 20% or 1/5 in share). That is, 80% of money issued in the first bank unit of loan money can ultimately "create" 400 units of money, now (80x5 "new money"), so the total money supply is 500 units It could increase to (100+400). Such money-loan of the bank efficiency in the multiplication by the state of its monetary (monetary) is taken into account in the policy because when the economy is excessive if it runs at the limit it can cause inflation.

[3] Mamedov, H., Muminov, N., Umarov, A., Ismailov, A. Iqtisodiyot nazariyasi II tom [Matn] : darslik / H. Mamedov, N. Muminov, A. Umarov., Ismailov, A.– Toshkent: Bookmany print, 2022. – 536 b.

Banks chasing big profits, "heat up" the economic conjuncture. They can give out too much credit without paying attention to his departure. As a result, if the growing demand for goods and services exceeds their supply, the price will also increase. With the possible measures of the state, the development of such events is mainly called "cheap-price" monetary policy.

The origins of the fractional reserve banking system trace back to the 17th century in Europe when goldsmiths began offering secure storage services. Wealthy individuals entrusted them with precious metals like gold, paying a fee for safekeeping. In return, goldsmiths issued notes or receipts to acknowledge these deposits. Interestingly, depositors started using these notes as a form of currency. Through observation, goldsmiths realized that the likelihood of all depositors redeeming their receipts simultaneously was extremely low. This realization led them to a groundbreaking idea: issuing notes even without an equivalent amount of precious metals in their vaults. Consequently, they began lending out these notes, marking the initial phase of modern banking practices.[4]

The implementation of the National Bank Act in 1863 in the US mandated that banks maintain reserves to safeguard depositor funds, preventing their use in precarious investments. Additionally, the Federal Reserve Act of 1913 established the framework for the Federal Reserve System, comprising Federal Reserve banks. Banks were obligated to maintain reserve balances with these Federal Reserve Banks under this new legislation.[5]

After considering the definition of this system, analysing an example of how it works and looking at the historical aspects it is time to come to a conclusion on whether it is beneficial or too risky for the economy. Obviously, the answer should be positive because of

[4] Quinn, S.F. : Banking before the Bank: London's unregulated goldsmith-bankers, 1660-1694, Ph.D Thesis University of Illinois (1994)

[5] The Federal Reserve. "Federal Reserve Bulletin | June 1993," Page 574, URL: https://www.federalreserve.gov/monetarypolicy/0693lead.pdf

the number of economies implementing it efficiently and reaching economic success, the leading ones: the US, the UK, China etc., but it would be expedient to look at the negative aspects it has already brought or to what kind of risks it upholds in it. This system is beneficial for these reasons such as additional money creation and economic growth stemming from credit expansion, but the negative for this system is that it's too risky and fragile to maintain financial stability.

*Money Creation*. By constantly lending out a portion of their deposits, banks contribute to the expansion of the money supply, which can stimulate economic growth but also lead to inflationary pressures.

*Credit Expansion and Economic Growth*. Fractional reserve banking enables banks to provide loans to individuals, businesses, and governments, fostering economic expansion. However, excessive lending can lead to bubbles and financial crises.

*Risk and Fragility*. The system is not without its risks. Banks must balance the desire to maximize profits through lending with the need to maintain a sufficient reserve. This delicate balance can sometimes result in bank runs and financial instability, as seen during the 2008 financial crisis. Moreover, many people oppose this system as it relies on the assumption that depositors will not simultaneously demand their funds. Taking into consideration the fact that people are unpredictable this may lead to financial instability in the economy. That is the main reason why governments and central banks implement various regulations and policies to mitigate the risks associated with fractional reserve banking. Reserve requirements, lender of last-resort facilities, and stress tests are some tools used to maintain stability in the banking sector.[6]

[6] Mamedov, H., Muminov, N., Umarov, A., Ismailov, A. Iqtisodiyot nazariyasi III tom [Matn] : darslik / H. Mamedov, N. Muminov, A. Umarov., Ismailov, A.– Toshkent: Bookmany print, 2022. – 420 b.

In conclusion, fractional reserve banking is a complex system that plays a vital role in modern economies. Its ability to create money, and foster economic growth, and its associated risks make it a topic of ongoing debate and scrutiny. Understanding the mechanics, historical context and implications of this system is essential for anyone interested in the world of finance and economics.

**References:**


**1.** Mankiw, N.G.:Principles of Economics,pp 600-604, Dryden Press (1997), 293 p.

**2.** Quinn, S.F. : Banking before the Bank: London's unregulated goldsmith-bankers, 1660-1694, Ph.D Thesis University of Illinois (1994)

**3.** Mamedov, H., Muminov, N., Umarov, A., Ismailov, A. Iqtisodiyot nazariyasi II tom [Matn] : darslik / H. Mamedov, N. Muminov, A. Umarov., Ismailov, A.– Toshkent: Bookmany print, 2022. – 536 b.

**4.** Mamedov, H., Muminov, N., Umarov, A., Ismailov, A. Iqtisodiyot nazariyasi III tom [Matn] : darslik / H. Mamedov, N. Muminov, A. Umarov., Ismailov, A.– Toshkent: Bookmany print, 2022. – 420 b.

**5.** The Federal Reserve. "Federal Reserve Bulletin | June 1993," Page 574, URL: https://www.federalreserve.gov/monetarypolicy/0693lead.pdf

**6.** WallStreetMojo, Fractional Reserve Banking by Gabriel Machado Pureza, URL: https://www.wallstreetmojo.com/fractional-reserve-banking/