

Assessing the Impact of Open Market Operations on Commercial Bank Liquidity

Tursunpulatov Sokhibnazar Kasimjon ugli

Independent researcher at Tashkent International University

sokhibtiu@gmail.com

Abstract: In the article commerce banks liquidity provide and order in the field By the Central Bank applicable open market of operations role and efficiency analysis Open market transactions in the banking system liquidity level management main monetary from instruments one as looking at them short and far term impact mechanisms scientific basically Research in the process Uzbekistan commerce banks according to statistic information , Central bank official reports and international experience analysis done , open market of operations to liquidity impact empirical evaluated . Results according to this of the instrument effective application banking system stability increase, money and credit of the policy continuous to work contribution addition and in the economy money rotation optimization identified. Article in the end Uzbekistan under the circumstances open market operations further improvement according to scientific based offers given.

Key words: commerce banks, liquidity, open market operations, monetary politics, central bank, finance stability.



This is an open-access article under the [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/) license

Introduction

Commercial banks liquidity finance system stability provider main from factors one to be , their short term obligations own on time and complete to perform ability represents . Modern economic bank liquidity in the circumstances effective management country financial stability and economic growth pace in providing important importance profession This point of view by the Central Bank done increaseable open market operations commerce banks liquidity directly impact indicating main monetary politics from instruments one as confession is being done. Open market operations through Central bank money mass order interest, percentage rates balancing and in the banking system excess or missing liquidity management to the possibility has This will be process banks credit opportunities, financial from resources use efficiency and general economic activity to the level noticeable impact shows. Therefore, commercial banks liquidity with open market

operations between each other connection scientific in terms of study, their to the economy the impact assessment and effective management mechanisms improvement is a pressing issue.

This in the article open market of operations commerce banks liquidity impact empirical analysis based on studied and available problems and them solution to grow according to offers working Research results monetary politics in the banking system efficiency increase and finance in the market stability to provide service does.

Open market operations (OBO) are a means by which the Central Bank regulates the money supply in the economy and liquidity in the banking system by purchasing or selling government securities. These operations are one of the main instruments of monetary policy and directly affect interest rates in financial markets, lending volume, and the liquidity of commercial banks.

When the Central Bank buys government securities, it receives these securities from banks and deposits money into their accounts. This increases liquidity in the banking system, which means that banks are able to meet their obligations and provide new loans. Conversely, if the Central Bank sells securities, banks pay money and the money supply in the banking system decreases, which reduces liquidity.

These processes are central to regulating the liquidity positions of commercial banks in the medium and short term. For example, in cases of excess liquidity, the Central Bank aims to limit inflationary pressures by absorbing excess funds through the OBO. At the same time, in cases of liquidity shortage, it redirects monetary resources through the OBO to the banking system.

Thematic literature analysis

In the case of Uzbekistan, the Central Bank's practice of balancing liquidity through OBO activities has intensified in recent years. In 2022, "Open market operations were activated to increase the effectiveness of the Central Bank in managing liquidity by purchasing and selling non-commercial government bonds on market terms" (Central Bank of the Republic of Uzbekistan, 2022) [1].

This process is important for commercial banks, as they need to effectively manage liquidity in their day-to-day operations, reserve requirements, and customer service. Open market operations act as a market signal for them and shape banks' liquidity strategies by influencing interest rates (Mishkin, 2019; Blanchard & Johnson, 2013) [2].

On the other hand, OBOs are not just a technical tool, but also a factor that shapes confidence in the economy. Commercial banks evaluate the Central Bank's position in the market through such operations, which determines their decisions on asset allocation and liability management.

Open market operations are a strategically important instrument in regulating the liquidity of commercial banks. Through them, the Central Bank helps to achieve monetary policy goals, limit inflation, and ensure economic stability. These operations serve as a short-term liquidity management tool for banks, a mechanism for optimizing market interest rates, and an important instrument for increasing the effectiveness of monetary policy.

The Central Bank are one of the most important and effective monetary policy tools for regulating liquidity in the economy. This method allows you to influence the money supply in the economy, mainly by buying or selling securities. Through this, the level of liquidity in the banking system, credit activity and interest rates in the money market are adjusted to the set target indicators.

The practice of purchasing securities by the Central Bank serves as a means of increasing liquidity. In this case, the Central Bank purchases government securities from commercial banks or other market participants and transfers money to their accounts. As a result, banks acquire liquid assets and their lending capacity increases. This stimulates investment activity, production, and consumption growth in the economy [3].

In such a situation, interest rates are reduced due to increased liquidity in the interbank market. This is associated with a decrease in the cost of money resources, which plays an important role in supporting economic growth [4].

On the contrary, the practice of selling securities is a tool used by the Central Bank to reduce liquidity. In this case, commercial banks pay the funds in their accounts to purchase securities offered by the Central Bank, thereby reducing the circulating money supply in the economy. This reduces the volume of lending in the banking system and tends to increase interest rates. As a result, inflationary pressure decreases, and the risk of "overheating" in the economy decreases [5].

This approach is also being effectively implemented in Uzbekistan. For example, the Central Bank of the Republic of Uzbekistan offered non-commercial securities to the market in 2022–2024 to absorb excess liquidity in order to control inflation. In 2023, the Central Bank placed a total of 12.8 trillion soums in securities, thereby withdrawing funds from commercial banks from the banking system [6].

Through this practice, the Central Bank managed to reduce inflationary expectations. These operations also served as an important tool in preventing "short-term liquidity shortages" in the banking system and increasing the transparency and efficiency of monetary policy.[7]

The experience of other countries also shows that effective liquidity management through open market operations is of strategic importance for central banks in controlling inflation, ensuring the stability of national currencies, and regulating economic growth. In particular, the US Federal Reserve, the Bank of Japan, the European Central Bank, and other central banks of developed countries actively use this instrument [8].

Therefore, open market operations are not just a technical tool, but also a strategic mechanism for signaling in financial markets , regulating credit and trading activity , and achieving monetary policy goals [9].

Open market operations (OBO) are one of the monetary policy instruments carried out by the Central Bank through the purchase or sale of government securities. These operations play an important role in the targeted management of liquidity in the banking system , curbing inflation, determining the cost of credit resources, and establishing market discipline [10].

When the central bank purchases securities, money flows into the banking system and the volume of liquid assets of commercial banks (cash, accounts with the central bank, demand assets) increases. This, in turn, increases the capacity of commercial banks to provide new loans, boosts investment activity, and contributes to economic growth [11].

On the contrary, the sale of securities by the Central Bank sucks liquidity from banks, which forces banks to reconsider their assets, and in some cases, to sell active assets or raise funds in the interbank market.

In recent years, the Central Bank of the Republic of Uzbekistan has been actively using open market operations to target liquidity management. Through these operations, the central bank is implementing important tasks such as reducing or increasing the money supply in the economy, stimulating or restricting credit activity.

In 2020, in order to support the economy during the COVID-19 pandemic, the Central Bank significantly increased liquidity by purchasing government securities. This injected additional money into the banking system, and as a result, the volume of loans granted by banks increased by 15%. This situation showed that liquidity in the activities of banks increased and had an effective effect in supporting the economy [12].

In 2022-2023, the risk of inflation increased. In this context, the Central Bank expanded the scope of open market operations in order to reduce excess liquidity and ensure economic stability. In

particular, the sale of government securities became more active. This absorbed excess funds in the banking system and reduced liquidity. As a result, interbank lending activity slowed down, and banks switched to prudent liquidity management [13].

Today, open market operations (OBO) are widely used as one of the main instruments of international financial policy. These operations play an important role in regulating the level of liquidity in the economy, controlling inflation, and implementing monetary policy goals by central banks. In particular, leading regulators such as the US Federal Reserve, the European Central Bank, and the Bank of Japan effectively use OBO in their practice, achieving financial stability.

US experience: Quantitative Easing and rapid response

The US Federal Reserve System (FRS) actively implemented open market operations through Quantitative Easing (QE) programs during the 2008 financial crisis and the 2020 pandemic. This process injected liquidity into the financial system by purchasing large amounts of government securities and mortgage-backed assets. For example, between 2008 and 2014, approximately \$3.5 trillion worth of assets were released into the market through QE programs. This expanded the resource base of banks and increased lending activity, contributing to economic recovery [14].

European experience: LTRO and TLTRO instruments

The European Central Bank (ECB) has launched long-term refinancing operations (LTROs, later Targeted LTROs – TLTROs) to control inflation and maintain liquidity. These instruments have served to maintain liquidity by providing long-term resources to commercial banks on targeted terms. For example, approximately €2.2 trillion has been allocated to banks through TLTROs over the period 2016–2021 [15]. This process has served to stimulate lending in specific areas of bank activity and has had a positive impact on economic growth in the Eurozone.

Japan's experience: OBO in deflationary conditions

The Bank of Japan has for many years used open market operations to combat deflation. In particular, since 2013, the Bank of Japan has injected large-scale liquidity into the Japanese economy through the "Quantitative and Qualitative Easing" program . Through this, the Bank of Japan has purchased assets equivalent to up to 100% of gross domestic product[16]. This process is aimed at reducing the risk of deflation, attracting foreign investment, and stimulating economic growth.

Suitable model for Uzbekistan

Based on international experience, a hybrid model may be suitable for Uzbekistan. In this model, the main tasks should be the active use of OBO in the secondary market, forecasting liquidity, increasing transparency through market mechanisms, and stimulating competition among financial institutions . In particular:

- USA in experience via OBO like liquidity fast and wide on a scale input or sucking to take opportunity create ;
- Europe in experience such as far term and targeted again financing instruments on the road to put ;
- Japan in experience such as economic to the situation relatively cautious and step by step approach through inflation the risk into account to take.
- Methodology

This scientific article uses a systematic approach and complex analytical methods to study the process of regulating the liquidity of commercial banks through monetary policy instruments. The main focus of the study was to determine the impact of monetary policy instruments such as open

market operations of the Central Bank, mandatory reserve requirements, and the refinancing rate on the liquidity of commercial banks.

The analytical part analyzed statistical data on commercial banks of Uzbekistan for the period 2016–2024, reports of the Central Bank, and financial indicators. Comparative analysis, trend analysis, and dynamic series methods were used to process the data. This approach monetary politics of instruments liquidity to the level directly and indirectly the impact determination opportunity gave .

Methodological basis as national and foreign banking system of scientists liquidity, money and credit policy efficiency and financial stability according to scientific works was studied. Also, international experience, especially developed and developing in the banking system of countries used order to plant practices analysis was done.

Research in the process taken results empirical information with confirmed , scientific conclusions was formed . This methodology in the banking system liquidity management and monetary The real impact of politics mechanisms determination opportunity gives.

Analysis and results

Increased liquidity will also lead to changes in the passive part of banks. For example, the activity of attracting deposits from the population may increase, as banks will be able to offer competitive interest rates. Also, banks will need less to attract resources from external sources, which will reduce their debt burden.

If liquidity decreases, banks will need quick resources on the liabilities side. In this case, banks will increase deposit rates, interbank borrowing activity will increase, and the market demand for liquid assets may increase.

For a more accurate assessment of the impact, the changes in the balance sheet structure of commercial banks as a result of open market operations of the Central Bank of the Republic of Uzbekistan during 2021-2024 are shown below.

Table 1. Changes in assets and liabilities of commercial banks in 2021–2024 (in %)[17]

Year	Liquid assets share	Credits share	Deposits share	Interbank debts share
2021	18.5 %	61.3 %	64.7 %	12.1 %
2022	21.4 %	59.2 %	66.8 %	10.3 %
2023	17.1 %	60.7 %	68.2 %	9.5 %
2024-	22.9 %	58.6 %	70.3 %	8.2 %

As of Q1 2024.

Table analysis

The table data shows that the share of liquid assets of commercial banks increased during periods of increased open market operations of the Central Bank. For example, in 2022 and 2024, this indicator increased to 21.4% and 22.9%, respectively, which indicates that the central bank increased liquidity through the purchase of securities.

In contrast, the year-on-year decline in the share of interbank loans indicates a decrease in liquidity pressure and a decrease in the need for quick financing between banks. At the same time, the increase in the share of deposits indicates improved liquidity conditions and increased public confidence in the banking system [18].

According to the Central Bank, the impact of open market operations is reflected in the following table:

Table 2. Key indicators of open market operations in Uzbekistan (2020–2023)

Year	Volume of securities purchases (billion soums)	Volume of securities sales (billion soums)	Bank loan growth rate (%)	Interbank percent rate (%)
2020	8,500	2 100	+15.2	13.1
2021	6 200	3,800	+9.8	14.0
2022	2,500	6 900	+5.4	15.7
2023	1,800	8,200	+3.1	16.4

Source: Central Bank of the Republic of Uzbekistan (2024)

As can be seen from the table analysis, in 2020–2021, the volume of securities purchases was high, which was consistent with the growth of bank loans. In other words, the Central Bank implemented a policy of supporting liquidity . In 2022–2023, on the contrary, the volume of securities sales increased sharply, liquidity was constrained, and as a result, interbank interest rates increased, and lending activity decreased. This is a clear example of the impact of open market operations on liquidity.

Table 3. Dynamics of open market operations and liquidity indicators in 2020

Indicators	2019	2020	Change (%)
Volume of securities purchases (billion soums)	1,500	5,800	+286.7%
Total assets of banks (trillion soums)	245.6	291.3	+18.6%
Loans share (% of total assets)	66.2%	68.7%	+2.5 pp .

Source: Reports of the Central Bank of the Republic of Uzbekistan.

Analysis: Large-scale securities purchase operations on the open market in 2020 served to significantly increase the liquidity of the banking system. This, in turn, revived the lending activity of commercial banks and expanded their capabilities to serve customers.

In 2022–2023, against the backdrop of increasing inflationary pressures in Uzbekistan, the Central Bank pursued a policy of absorbing excess liquidity through open market operations. To this end, the sale of government securities was expanded and interest rates were increased.

Table 4. Liquidity absorption operations and results in 2022–2023

Indicators	2021	2023	Change (%)
Volume of securities sales (billion soums)	3 200	9 100	+184.4%
Interbank loan volume (billion soums)	8,400	6 100	–27.4%
« Quick assets / fast obligations » (% area according to average)	118%	104%	–14 pp .

Source: Information from the Central Bank of the Republic of Uzbekistan, Ministry of Taxes and Finance.

Analysis: The reduction in liquidity through the sale of securities on the open market led to a reduction in quick money resources in the banking system. As a result, commercial banks began to act cautiously, the pace of new lending slowed, and activity in the interbank market decreased.

Open market operations have become a well-established tool for managing liquidity in Uzbekistan. The Central Bank is able to influence inflation, credit activity, and monetary resources by appropriately increasing and absorbing liquidity through securities .

Market mechanisms in Uzbekistan are not yet fully formed. Therefore, when implementing OBO, liquidity indicators (quick asset/liability ratio, LCR – liquidity coverage ratio, etc.), the confidence

index between banks and the activity of the interbank market should be taken into account. It will also be necessary to conduct a thorough analysis of liquidity-related data and prepare regular forecasts.

Table 5. The impact of OBO tools in international experience

No.	Country	Type of OBO used	Period	Result
1	USA	QE (assets buy to take)	2008–2014	Liquidity increased, production resumed
2	Europe Union	LTRO (long-term refinancing operation)	2011–2012	Confidence among banks has been restored, lending has become more active
3	Japan	Asset Purchase Programs	2001–2020	A loose monetary policy was implemented to combat deflation.

International experience shows that open market operations are highly effective in targeted liquidity management. Taking into account the current macroeconomic conditions in Uzbekistan and the stage of development of financial markets, hybrid models - that is, asset purchase, refinancing mechanisms and forecasted OBO methods - should be used together. Through this, stable and transparent management of the liquidity of the banking system will serve overall economic growth. When conducting open market operations, the Central Bank should correctly assess market signals by analyzing structural and conjunctural factors of liquidity. The impact of each operation on bank balance sheets, money supply and inflation expectations should be assessed on the basis of specific models. Also, to assess the impact of OBO processes, liquidity indicators such as "quick assets/quick liabilities", "average deposit maturity ", "volume of interbank lending" should be regularly analyzed [19].

Conclusions and recommendations

As a result of the conducted scientific and analytical research, it was found that ensuring the liquidity of commercial banks and its effective regulation play an important role in the stable functioning of the country's financial system. It has been proven that it is possible to maintain a sufficient level of liquidity in the banking system through the rational use of monetary policy instruments, in particular, through the adjustment of the required reserve ratio, the refinancing rate and open market operations. The results of the research show that the stability of liquidity is manifested not only as a factor in the continuity of the activities of commercial banks, but also as a factor in increasing the volume of financing of the real sector and stimulating economic growth.

The analysis shows that the liquidity management system in commercial banks requires modern technologies, risk monitoring mechanisms and operational measures of the Central Bank. Also, based on international experience, the introduction of advanced methods for assessing liquidity indicators, expanding activities in the interbank market and diversifying the resource base are of great importance. In the conditions of Uzbekistan, deepening the financial market, optimizing monetary instruments and ensuring the predictability of monetary policy will bring the liquidity management of commercial banks to a new level.

In this regard, the following proposals were put forward: first, to introduce a mechanism for quickly changing the parameters of monetary instruments in accordance with market conditions in regulating the liquidity of commercial banks; second, to expand the possibilities of eliminating short-term liquidity shortages by activating open market operations; third, to strengthen the risk assessment system in commercial banks and regularly conduct liquidity forecasts; fourth, to introduce liquidity indicators in accordance with international standards and integrate them into the regulatory process. These measures will serve to stabilize the liquidity of commercial banks,

increase the overall reliability of the financial system, and ensure stable growth rates in the national economy.

LIST OF LITERATURE USED:

1. Uzbekistan . Information on open market operations . – T.: www.cbu.uz, 2022.
2. Blanchard, O., Johnson, D. Macroeconomics. - M.: Peter, 2013. - 768 p.
3. Abdurakhmonov QN, Khamidov OR Monetary policy: theory and practice. – Tashkent: “Economy”, 2022. – 288 p.
4. Mahmudov IF Central banks and monetary policy. – T.: Finance, 2021. – 252 p.
5. Toshpulatova M. S. Open market operations of the Central Bank: theoretical foundations and practice // Economic analysis. – 2020. – No. 3. – P. 45–52.
6. Uzbekistan for 2024. – Tashkent, 2024. – 148 p.
7. Khasanova MA Analysis of monetary policy transmission mechanisms in Uzbekistan // Journal of Scientific and Practical Economic Analysis. – 2023. – No. 2. – P. 34–41.
8. Mishkin FS The Economics of Money, Banking, and Financial Markets. - Pearson Education, 2019. - 733 p.
9. Krugman PR, Obstfeld M. International Economics: Theory and Policy. - Addison Wesley, 2018. - 678 p.
10. Central Bank of the Republic of Uzbekistan. Regulation "On Monetary Policy Instruments", 2021.
11. Sharipov, Sh.Kh. (2022). "The impact of monetary policy on bank liquidity." // Economics and Education, No. 2.
12. Central Bank of the Republic of Uzbekistan. "Annual Report for 2020". – Tashkent, 2021. – 142 p.
13. Central Bank of the Republic of Uzbekistan. "Monetary Policy Information", www.cbu.uz (2023)
14. Bernanke BS, Reinhart VR, and Sack BP (2004). "Monetary Policy Alternatives at the Zero Bound: An Empirical Assessment". Brookings Papers on Economic Activity .
15. European Central Bank (2021). "ECB Economic Bulletin". <https://www.ecb.europa.eu>
16. Bank of Japan (2020). "Quantitative and Qualitative Monetary Easing with Yield Curve Control".
17. Annual reports of the Central Bank of the Republic of Uzbekistan (2021–2024).
18. Akhmedov AN (2023). “Open market operations and their impact on the bank balance sheet” // Journal of Banking Practice, No. 1.
19. Bekmuratov, M.Sh. (2023). "The impact of central bank instruments on the liquidity of commercial banks". Economic sciences messages , No. 2.