

**SOME THEORETICAL AND PRACTICAL EXPERIENCES REGULATION OF MONEY SUPPLY**

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ABSTRACT

This article indicates the monetary policy instruments developed over the years under the influence of innovative ideas based on the best practices of developed countries, and examines the scientific and theoretical views of foreign economists in this regard. It is also based on the fact that monetary policy has played an important role in solving financial and economic crises, epidemics, pandemics, macroeconomic and financial problems observed at different periods in the history of world economies. Also, the influence of monetary policy instruments on the supply and demand of money in the economy is analyzed. In particular, the change in the refinancing rate on the growth rate of monetary aggregates in Uzbekistan based on practical data from the official website of the Central Bank of the Republic of Uzbekistan. The practice of using monetary policy instruments in Uzbekistan is analyzed, existing problems are identified and their scientific solutions are presented. In turn, science-based scientific, theoretical and practical proposals and recommendations have been developed to increase the role of Uzbekistan in strengthening sustainable economic growth, financial and macroeconomic stability by improving monetary policy.

Keywords: monetary policy, monetary aggregates, the demand for money, the supply of money. monetary instruments, economic growth, macroeconomic sustainability, Central bank, inflation, national currency, devaluation, credit, reserve requirement policy, open market operations, interest rate policy.

Introduction

An analysis of the best practices of developed countries shows that monetary policy has improved over the years under the influence of innovative ideas. In the history of the world economy, monetary policy has played an important role in solving financial and economic crises, epidemics, pandemics, macroeconomic and financial problems observed in various countries, and it has been constantly improved on the basis of innovative ideas. Therefore, improving the practice of using monetary policy instruments is a necessary condition for ensuring the stability of the financial market, the liquidity of the banking system, the national currency, prices, the balance of payments and the economy.

In developed countries such as the United States, Japan and Germany, the central banks have accumulated many years of theoretical, practical and methodological experience in ensuring and strengthening economic growth, macroeconomic and financial stability based



on increasing economic and investment activity through the effective use of monetary policy. various monetary models are effectively used in its activities.

Improving the practice of using monetary policy instruments, in turn, is important in ensuring the stability of the national currency, prices, balance of payments, liquidity of the banking system and economic growth, development of financial markets, especially stock, capital, securities, money and foreign exchange markets, increasing investment efficiency. earns.

Today, the process of globalization in the world economy is rapidly deepening. In particular, under the influence of various crises and pandemics, various risks of an economic, financial, political and social nature have been increasing in countries around the world for many years. In turn, globalization has radically changed the functioning of the banking and financial system, the banking and financial system, in particular, the activities of central banks, commercial banks, non-bank credit institutions and insurance companies are developing rapidly in an innovative direction based on digital technologies.

Over the past years, the regulatory and methodological foundations of the banking system have been formed and strengthened in Uzbekistan. Innovative banking services and financial technologies began to be used. Also, the Decree of the President of the Republic of Uzbekistan dated September 13, 2017 No. PP-3272 "On measures to further improve monetary policy" provides for measures to improve coordination practices in the field of general economic, fiscal and monetary policy, the use of interest-bearing instruments used in monetary policy operations to provide and attract liquidity. urgent tasks are being set to improve monetary policy, such as expansion [1].

It should be noted that there are problems associated with increasing the role of the Central Bank of the Republic of Uzbekistan in strengthening macroeconomic stability by improving the monetary policy. The main ones, in our opinion, are as follows. In particular, the lack of a discount policy of the Central Bank, the small volume of open market operations of the Central Bank, high reserve requirements, inflation and interest rates.

Therefore, in the Action Strategy for the five priorities of the country's development in Uzbekistan, the improvement of monetary policy using monetary policy instruments widely used in foreign practice is recognized as one of the priorities for further development of the country's banking system.

1. Materials

Monetary policy is a set of tools, mechanisms, measures aimed at influencing the money supply, price level, balance of payments, investment activity, the real sector of the economy, economic growth and various macroeconomic indicators through the monetary system of the state, taking into account current trends. its improvement plays an important role in ensuring macroeconomic and financial stability.

It is known from international banking practice that monetary policy is carried out by the official monetary body of the state, the Central Bank. The central bank will have a direct impact on the balance sheets of commercial banks, primarily through the use of monetary instruments at its disposal, and the liquidity of the banking system will change. This,



through the credit and money multiplier, has a direct impact on the change in reserve money, money supply, total money supply in the economy, the real sector of the economy, the financial market and investment activity.

The issue of the use of monetary policy instruments has been thoroughly studied by economists in the economic literature and relevant scientific conclusions and practical recommendations have been formed. In particular, M. Friedman concludes that the central bank has sufficient capacity to manage the money supply, and at the same time concludes that inflation is not a multifactorial process [2]. This conclusion is based on the fact that the Central Bank can manage money supply and interest rates using open market operations and discount operations. Indeed, the purchase of securities by the Central Bank on the open market will lead to an increase in the reserves and monetary base of the banking system, an increase in the money supply and a decrease in short-term interest rates.

In particular, a group of economists has proposed the introduction of a 100% mandatory reserve requirement for deposits of commercial banks in order to actively use the reserve policy [3]. However, some economists have expressed a negative view of the mandatory reserve policy. For example, according to the well-known foreign economist F. Mishkin, mandatory reserve requirements have many shortcomings, including the possibility of liquidity problems in banks [4].

McCallum, a foreign economist, argues that the demand for money is not stable, so the central bank's interest rate is the main instrument of monetary policy.

According to foreign economist V. Yurovitsky, in the absence of mandatory reserve requirements, all issued money is an asset, which in turn leads to an increase in deposits of commercial banks [6].

According to one of the foreign economists S. Moiseev, open market operations are now the main tool of monetary policy in developed countries. Open market operations allow central banks to enter into transactions on their own initiative, that is, to be more flexible in determining the timing and volume of monetary operations [7].

Another foreign economist, according to A. Simanovsky, in solving practical problems of monetary policy, practical aspects of money supply management through refinancing policy, regulation and supervision of banks, management of international reserve assets, etc. play an important role [8].

According to foreign economist J. Sinki, the first serious innovative product in the activities of commercial banks was the certificates of deposit issued in February 1961 by the First National Bank of New York. These certificates later became popular, enabling commercial banks to raise resources and manage liabilities [9].

Foreign economists Itai Agur and Maria Demertzis, in their 2019 study on the impact of interest rate policy on macroprudential policy, say, in part: "... lower interest rates lead to an increase in money supply and worsen financial stability" [10]. In our view, economists in this study highlighted the negative impact of cheap money policy on financial stability. In practice, however, cheap and expensive monetary policy has been used to achieve macroeconomic stability by overcoming extremely difficult and serious problems. This has already been proven in global economic, financial and banking practices.



Foreign economists Martin Bodenstein and Junzu Zaho, in their 2019 paper, Labor, Wages, and Reasonable Monetary Policy, in their research on the interrelationship between labor, wages, and inflation, specifically stated: stabilizing inflation requires large expenditures associated with insignificant fluctuations in social security and empirical models [11]. In our study, economists have acknowledged that inflation and wage stabilization, in turn, require large expenditures. This is because curbing inflation and drastically reducing it, while at the same time ensuring wage stability, which is one of the most important social issues, requires the Government of each state to take effective measures and large expenditures.

Foreign economists Philipp Andrade and Filippo Ferroni have studied the relationship between the financial market and the central bank in making political decisions and have shown that two factors influence monetary policy. In particular, what drives the response of financial market reactions to central bank relations in the days when political decisions are made in their research? "We emphasize the role of two high-volatility factors that determine the most common monetary expectations: Delphic shocks and Odissean shocks," he said. blows). These two shocks move the profitability curve in one direction, but have the opposite effect on financial conditions and macroeconomic expectations. Therefore, central banks cannot determine the level of incentives provided simply by fluctuating the income curve." [12] In our view, it can be concluded from the research of these scholars that fluctuations in the financial market will certainly lead the Central Bank to make political decisions to effectively regulate the money supply. In this case, the Central Bank wisely uses its monetary instruments, in particular refinancing policy, open market operations, foreign exchange policy, reserve requirements, and affects the balance of commercial banks and through them the real sector of the economy, money supply, balance of payments and all macroeconomic and monetary indicators .

One of local economist O.Namozov, suggested the introduction of inflation targeting as an important condition for maintaining the stability of the monetary system [13]. Another local economist, B. Dushaev, suggested improving the regulation of money supply by developing the practice of using monetary policy instruments [14].

2. Methods

This article uses methods such as comparison, comparison, synthesis, logical and comparative analysis of research, economic analysis, deduction, calculation of quantity and quality, statistical processing by comparing them with each other, scientific abstraction.

3. Results

It should be noted that when open market operations of central banks first took place, its object was only government-issued securities. Over the years, the number of its facilities has increased on the basis of innovative ideas. In particular, at present, from certificates of deposit (central banks of the Netherlands, Denmark, Spain, European Central Bank), financial bills (Central Bank of England, Rix Bank of Sweden, German Bundesbank,



Central Bank of Japan), corporate bonds (South Korea, Chile, Central Russia) banks) are used as the object of these operations [15].

Another innovative idea in the field of monetary policy is a proposal to increase the efficiency of reserve management and improve the monetary policy of the Central Bank by accumulating official gold and foreign exchange reserves on the balance sheet of the Central Bank.

In the 60s of the twentieth century, this idea was born in the countries of Western Europe. Its implementation has allowed to increase the efficiency of management of official gold and foreign exchange reserves. In particular, the possibility of a sharp increase in public external debt was limited. That is, the Central Bank will repay the external debt of the state from its own foreign exchange. But only on one condition, that is, if the current account of the Government in the Central Bank has the equivalent in national currency of the amount paid in foreign currency.

Swap transactions also became one of the most common ways to manage official gold and foreign exchange reserves, and the swap market emerged in 1981. It should be noted that the currency swap reliably protects foreign exchange reserves from currency risk. But it doesn't bring much revenue. In this regard, currency swap transactions attract more Central Banks.

Later, a number of innovative deposit products appeared in the practice of developed countries. In particular, in the 70s of the twentieth century in US banking practice appeared interest-bearing transaction deposit accounts - NOW. One of the most pressing issues of digital banking is undoubtedly the introduction of digital currency by central banks. The Bank of England announced the first study on the creation of a central bank digital currency [16].

In general, the following advantages inherent in the central bank's digital currency have been recognized by most economists. These include convenience, ie the ability to use digital currencies without opening an account, low transaction costs, currency conversion, maintenance of bank accounts and reduced maintenance costs. Security, in particular, the circulation of digital currencies, unlike cryptocurrencies created by individuals, is organized by central banks and regulated by certain rules. Digital currencies also allow for the widespread use of digital technologies, paving the way for the emergence of new forms of money.

Decree of the President of the Republic of Uzbekistan PF-5177 dated September 2, 2017 "On priority measures to liberalize foreign exchange policy" [17] aimed at creating equal conditions for the implementation of its activities.

Research shows that one of the traditional tools of monetary policy is the policy of the Central Bank's reserve requirements. It is possible to change the size of the country's money supply by changing the norm of mandatory reserve requirements. However, the policy of mandatory reserve requirements is an administrative tool of monetary policy and its impact on the money supply through the money multiplier is enormous. The relatively high inflation rate and refinancing rate in Uzbekistan (Diagram1).

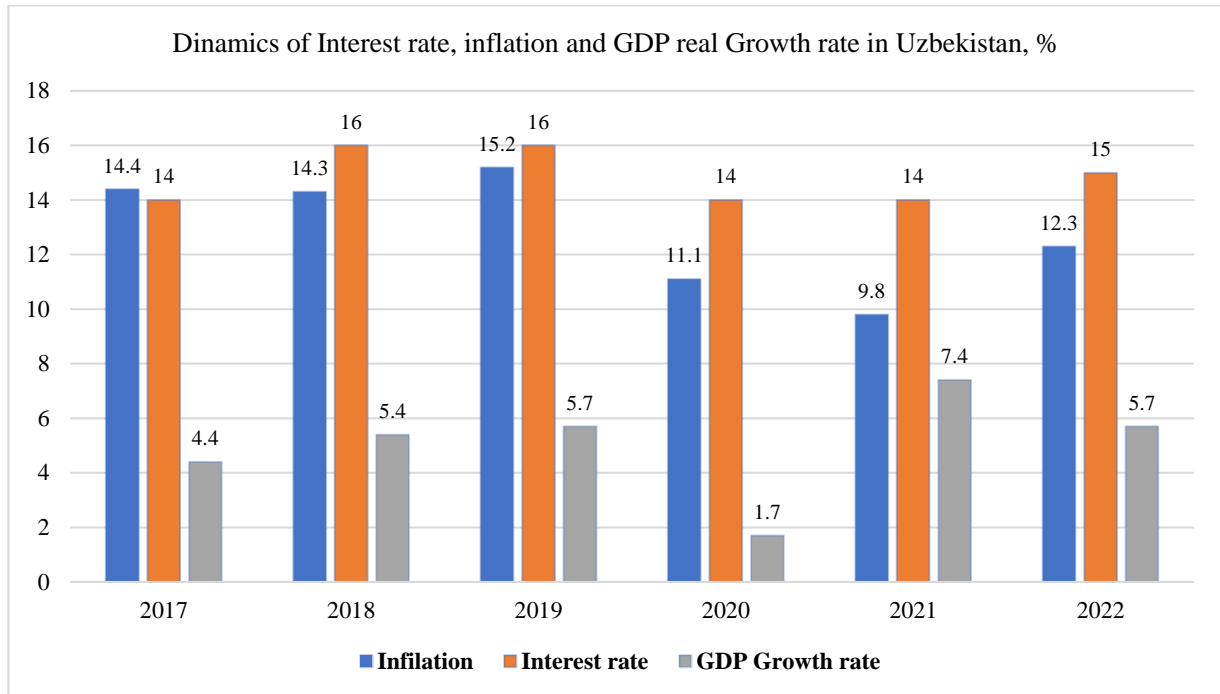


Diagram 1. Inflation rate in Uzbekistan, real GDP growth rate and refinancing rate dynamics, in percent [18]

In particular, from October 1, 2018, the second stage of improving the compulsory reserve in Uzbekistan has been implemented. At this stage, the procedure for the formation of required reserves only in the national currency was introduced, the reserve requirements for deposits of legal entities and individuals were unified, ie the reserve requirements for deposits in national currency were reduced and the reserve requirements for foreign currency deposits were increased.

The data shown in Diagram 2 show that the inflation rate in the Republic of Uzbekistan in 2017-2019 was high. This led to an increase in the Central Bank refinancing rate. In turn, the increase in the refinancing rate led to an increase in interest rates on loans issued by commercial banks in the national currency.

In order to ensure the profitability of assets in the national currency in the face of increasing direct and indirect pressure of external factors on inflation and to create a monetary environment aimed at preventing the impact of government spending, including monthly wage increases and price liberalization on inflation expectations, Since September 25, the Central Bank has increased its refinancing rate from 14% to 16% per annum. In turn, from October 1, 2018, the Central Bank of the Republic of Uzbekistan set the required reserve ratio for foreign currency deposits of commercial banks at 14% [19].

Also, the Resolution of the President of the Republic of Uzbekistan dated September 13, 2017 No PP-3272 “On measures to further improve monetary policy” There are urgent tasks to improve monetary policy, such as expanding the use of interest rate instruments used in attracting operations [20].

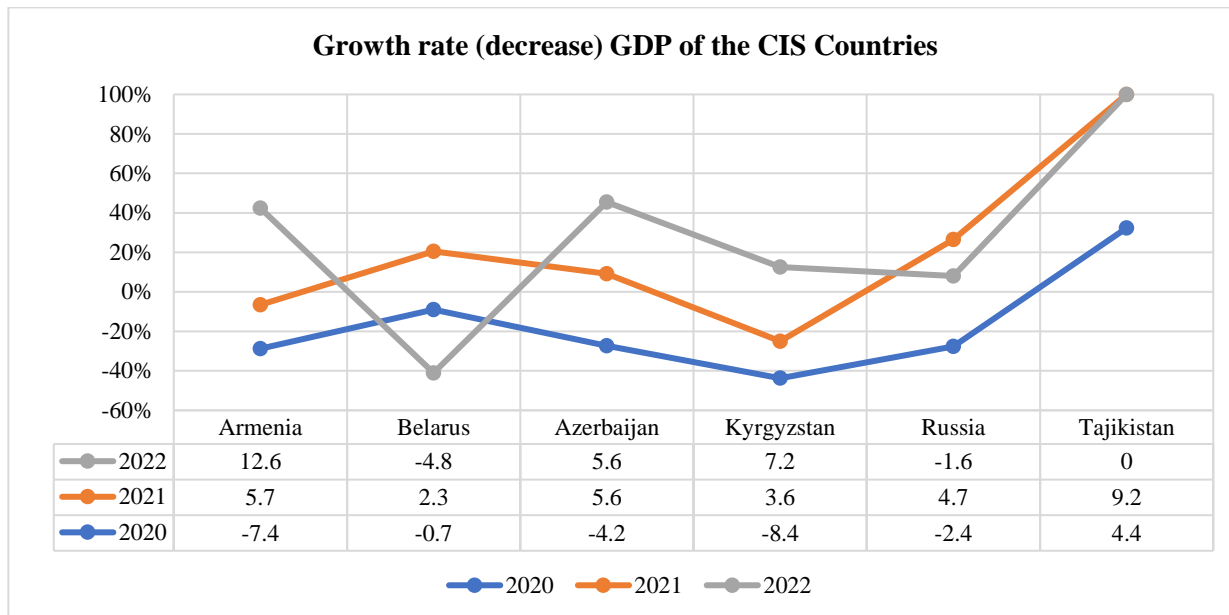


Diagram2. Growth rate (decrease) GDP of the CIS Countries in 2020-2022. As a percentage of the corresponding period of the previous year [21]

However, stable economic growth was observed during this period. Under the influence of the COVID-19 pandemic, real GDP growth rates in 2020 will be significantly reduced. However, in 2022, the annual inflation rate will fall to 12,3 percent, while the refinancing rate will remain at 15 percent on an annualized basis. This has led to a decrease in the average annual interest rate on loans issued by commercial banks in the national currency. As a result, this situation had a positive impact on the growth of real demand for loans in the economy. In particular, the real GDP growth rate in 2022 will increase to 5,7%. According to the target set for 2024 on inflation targeting, it is planned to reduce it to 5% per annum.

It should be noted that in 1993, along with Russia, 10 CIS countries issued their national currencies, and the depreciation of the Russian ruble in the territory of these countries caused severe hyperinflation, which led to the closure of neighboring countries such as Uzbekistan. In particular, in 1994, hyperinflation in Ukraine reached 10054 percent. In Georgia it increased by 7800 percent, in Russia by more than 2800 percent, in the Baltic States by more than 2700 percent, and in Uzbekistan by only 1132 percent. In 1994, the Government of the Republic of Uzbekistan quickly took measures to stabilize the economy. As a result, the annual inflation rate was reduced to 127,6 percent in 1995, almost 10 times. In particular, in 1996, Uzbekistan was one of the first CIS countries to reverse the decline in production, falling to 64,3%, and achieved economic growth of 1,6%. In 1997, economic growth was achieved at 5,2 percent, while the inflation rate was reduced to 27,6 percent [22].

It should be noted that a number of positive achievements have been made in addressing the tasks set by the Central Bank of the Republic of Uzbekistan to improve monetary policy. In particular:



- The introduction of the practice of refinancing loans by the Central Bank in the second half of 2017 helped to increase the effectiveness of monetary policy, including refinancing policy.

- From October 1, 2018, in order to improve the reserve policy of the Central Bank, the procedure for forming the amount of required reserves in national currency was introduced, the reserve requirements for deposits of legal entities and individuals were unified, ie the reserve requirements for deposits in national currency were reduced. mandatory backup standards have been increased.

- From January 1, 2020, the Central Bank's interest rate and interest rate corridor, Central Bank bonds, as well as 2-week and 1-day (overnight) deposit, REPO and swap operations were introduced.

It should be noted that the beginning of the gradual transition to inflation targeting in the country from 2020 has led to a radical change in priorities in the field of monetary policy. In particular, in accordance with the Decree of the President of the Republic of Uzbekistan dated November 18, 2019 PF-5877 "On improving monetary policy through the gradual transition to inflation targeting", the priorities of monetary policy in the transition to inflation targeting are:

1. Prevention of sharp price increases and spiral inflation.
2. Maintaining devaluation pressure on the national currency.
3. Formation of the money market, elimination of conditions for preferential lending and money market segmentation.
4. Maintain the solvency of the population and business, taking into account internal and external factors.
5. Ensuring the stability of the financial sector.

In addition to the above-mentioned advantages, there are problems associated with increasing the role of the Central Bank of the Republic of Uzbekistan in strengthening macroeconomic stability by improving the monetary policy. The main ones, in our opinion, are as follows. These include: the absence of a central bank discount policy; Small volume of central bank open market operations; The central bank's reserve requirements and high inflation rates.

According to the official data of the Central Bank of the Republic of Uzbekistan, in 2019 the volume of government securities issues amounted to only 3,4% of highly liquid assets of commercial banks. In particular, in 2020, the volume of securities of the Government of Uzbekistan will reach 1,6 trillion soums. This is a small issue volume, which does not allow the Central Bank to significantly increase the volume of open market operations. In turn, it is clear from these indicators that the volume of issues of government securities is small.

The gross domestic product (GDP) of Uzbekistan in 2022 increased by 5,7% to 888.34 trillion soums (about \$80,4 billion). GDP per capita increased to \$ 2,255, the State Agency reports Republic of Uzbekistan.



Table 1 Change in the growth rate of the Broad money, currency and Interest rate in percentage in the Republic of Uzbekistan [23]

Years	Growth rate of the Broad money (monetary aggregate M3)	Growth rate currency (monetary aggregate M0)	Change in the Interest rate
2013	20,3	28,7	12,0
2014	15,7	22,0	10,0
2015	24,3	17,6	14,0
2016	23,5	24,0	9,0
2017	40,2	47,	14,0
2018	14,1	14,0	16,0
2019	13,9	9,4	16,0
2020	17,7	2,8	14,0
2021	29,7	15,0	16,0
2022	30,2	47,3	15,0

From the analysis and trends of monetary indicators, it can be seen that the growth rate of the money supply and cash is higher than the refinancing rate. But the Central Bank used other monetary policy instruments in parallel to regulate the growth rates of monetary aggregates. For example, the policy of reserve requirements, currency policy and open market operations.

A significant growth rate of the money supply and cash is associated with the liberalization of monetary policy conducted by the Government of Uzbekistan jointly with the Central Bank in 2017. As for the significant growth rate of the money supply and cash, it is associated with a significant increase in the nominal gross domestic product with a simultaneous increase in the real demand for money and an increase in investment activity in the country.

Table 2 The structure of the Broad money (monetary aggregate M3) in the Republic of Uzbekistan [2]

Years	The currency (monetary aggregate M0)	The deposits in national currency	The deposits in foreign currency
2012	23,6	53,8	22,6
2013	25,3	55,1	19,7
2014	26,6	56,2	17,2
2015	25,2	60,5	14,3
2016	25,3	57,9	16,8
2017	26,6	38,3	35,1
2018	26,5	43,2	30,2
2019	25,5	44,6	29,9
2020	22,2	46,9	30,8
2021	19,7	49,0	31,2
2022	22,3	52,6	25,1



Analysis of the structure of the broad money supply shows that since 2017, with the liberalization of monetary policy, the share of deposits in the structure of the broad money supply has increased significantly from 16,8 percent in 2016 to 35,1 percent in 2017 and for 5 years has been more than 30 percent on average. As a result of a significant increase in deposits in the national currency in the structure of the broad money supply to 52,6 percent in 2022, the share of deposits in foreign currency has significantly decreased.

4. Conclusion

In our opinion, it is expedient to take the following measures to address the above-mentioned problems:

1. In order to increase the role of monetary policy in the context of the Globalization, it is necessary to introduce the practice of the Central Bank issuing primary, secondary and seasonal discount loans to commercial banks. In particular, the conversion of open market operations into bonds and certificates of deposit of commercial banks with a current level of liquidity of 50% and above, in particular, the Central Bank's mandatory reserve rate on deposits in foreign currency attracted by commercial banks for more than 1 year. should be set at the rate level.

2. The transformation of long-term bonds and certificates of deposit of commercial banks with a high level of liquidity into the object of open market operations will increase the volume of open market operations of the Central Bank. This, in turn, will ensure that the Central Bank has an effective impact on the money market and the liquidity of the banking system. Uzbekistan has sufficient opportunities and conditions for this. That is, there are commercial banks whose solvency and liquidity are at the level of demand. Second, there are large-scale issuance of certificates of deposit and long-term bonds by commercial banks.

3. In order to increase the central bank's ability to influence the interest rates on loans from commercial banks, it is first necessary to ensure a moderate level of inflation (not exceeding the annual rate of 3%); secondly, it is necessary to ensure the continuity of the Central Bank's practice of issuing refinancing loans (discount loans, pawn loans, overdraft, term loans); third, it is necessary to influence the deposit offer of commercial banks by increasing the volume of placement of government securities on the condition of proper REPO.

4. In order to develop the secondary market in Uzbekistan, it is necessary to expand indirect monetary policy instruments, including pawn and overdraft mechanisms, currency swaps, overnight loans, REPO and REPO operations. This will help the Central Bank to attract excess liquidity in circulation, effectively regulate the money supply, reserve money, credit volume, banking system and money market liquidity, have a direct impact on the real sector of the economy and further enhance the role of monetary policy in the economy.

In conclusion, the implementation of these scientific-theoretical proposals and practical recommendations will play an important role in further enhancing the role of monetary policy in modern Uzbekistan.



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