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MEHNAT IQTISODIYOTI VA INSON KAPITALI

2023

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“Mehnat iqtisodiyoti va inson kapitali” ilmiy elektron jurnali O‘zbekiston Respublikasi Oliy ta’lim, fan va innovatsiyalar vazirligi huzuridagi Oliy attestatsiya komissiyasi (OAK) rayosatining 2023-yil 3-iyundagi 328/3-sonli qarori bilan ro‘yxatga olingan.
Muassis: “Mehnat iqtisodiyoti va inson kapitali” ilmiy maktabi.

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TOSHKENT–2023

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MAKROIQTISODIYOT

INFLUENCE OF MONETARY POLICY INSTRUMENTS ON MACROECONOMIC STABILITY DURING THE TRANSITION TO INFLATION TARGETING IN UZBEKISTAN

Duskobilov Umidjon Sharofiddinovich,
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Abstract. The article presents economic aspects of moving to inflation targeting regime. Foreign experience in transition to inflation targeting has been studied empirically. The impact of Uzbekistan's monetary policy stability indicators on economic growth was also investigated by using four criteria from the 4x2 matrix model in 2011-2020. Based on obtained results, the Phillips-Perron and extended Dickey-Fuller tests are used to determine whether variables are stationary or not. The long-term correlation between the variables is checked using the Johansen cointegration test. The results show that increases in bank capital adequacy, loan portfolio, and money supply, as well as lower inflation, all help to maintain macroeconomic stability. However, rising volume of bank deposits and appreciation of foreign currency against Uzbek sum has a negative impact on economic growth. In addition, liquidity ratio, state gold and foreign exchange reserves are insignificant and have no effect on economic growth.

Keywords. monetary policy, inflation targeting, interest rate, exchange rate, GDP, CPI.

O'ZBEKISTONDA INFLYATSIYA TARGETINGGA O'TISH DAVRIDA MAKROIQTISODIY BARQARORLIKGA PUL-KREDIT SIYOSATI OMILLARINING TA'SIRI

Duskobilov Umidjon Sharofiddinovich
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Bank ishi va investitsiyalar kafedrasi.

Annotatsiya. Maqolada inflyatsiyani nishonlash rejimiga o'tishning iqtisodiy jihatlari ko'rsatilgan. Inflyatsion maqsadlilikka o'tish bo'yicha xorijiy tajriba empirik tarzda o'rganildi. Shuningdek, 2011-2020 yillarda 4x2 matritsa modelidan to'rtta mezondan foydalangan holda O'zbekiston pul-kredit siyosati barqarorligi ko'rsatkichlarining iqtisodiy o'sishga ta'siri o'rganildi. Olingan natijalarga asoslanib, o'zgaruvchilarning statsionar yoki yo'qligini aniqlash uchun Phillips-Perron va kengaytirilgan Dikki-Fuller testlari qo'llaniladi. O'zgaruvchilar o'rtasidagi uzoq muddatli korrelyatsiya Yogansen kointegratsiya testi yordamida tekshiriladi. Natijalar shuni ko'rsatadiki, bank kapitalining yetarliligi, kredit portfeli va pul massasining oshishi, shuningdek, inflyatsiya darajasining pasayishi makroiqtisodiy barqarorlikni saqlashga yordam beradi. Biroq, bank depozitlari hajmining o'sishi va xorijiy valyuta kursining o'zbek so'miga nisbatan qimmatlashishi iqtisodiy o'sishga salbiy ta'sir ko'rsatmoqda. Bundan tashqari, likvidlik koeffitsienti, davlat oltin-valyuta zaxiralari ahamiyatsiz va iqtisodiy o'sishga hech qanday ta'sir ko'rsatmaydi.

Kalit so'zlar. pul-kredit siyosati, inflyatsiyani nishonlash, foiz stavkasi, valyuta kursi, YaIM

Introduction:

While USA President Richard Nixon eliminated exchange of US dollar to gold in 1971, New Zealand economy experienced volatile inflationary processes until 1989. As a result, the New Zealand Parliament and Reserve Bank put on the task of abandoning the Bretton Woods monetary system, as well as the transition to inflation targeting regime and adjusting operational and strategic goals of monetary policy. After such a sudden decision in changing monetary policy by New Zealand government, many developing countries such as Brazil, Chile, the Czech Republic, Hungary, Israel, Korea, Mexico, Poland, the Philippines, South Africa and Thailand also took steps adapting to inflation targeting regime in the 1990s. (IMF, 2020).

The foreign experience shows that countries with inflation targeting regime have not abandoned and have not returned to other alternative monetary regimes. This indicates that inflation targeting regime has successfully tested in practical.

Central bank of Uzbekistan introduced inflation targeting in 2017 and targeted 5% in 2024.

Today, Central Bank of Uzbekistan, based on the strategic goals of monetary policy in medium term, has implemented systematic measures such as conducting inflation expectations of individuals and businesses, introduction of new monetary policy instruments such as overnight loans and deposit auctions in order to reach the target which keep the inflation rate at 5% until 2024. Operational mechanisms of the bank also have been developed. The bank is using new instruments to absorb and provide liquidity.

It should be noted that practice of inflation targeting has led to new approaches for monetary policy targets. As a result, international economists and experts has started to conduct research on inflation targeting as new path in scientific arena.

Researchers studied efficiency of inflation targeting regime, as well as the creation of a favorable macroeconomic environment for the regime and the selection of appropriate targets for Central banks over the past few years. However, it has turned out that those approaches are not perfect in stabilizing monetary policy. Thus, because of the existence of disparities in different views, research on inflation targeting is still relevant today.

This article studies employment of monetary policy instruments and establishment of favorable macroeconomic conditions in the transition to inflation targeting, based on the numerous viewpoints mentioned above.

Literature review:

In order to understand the relationship between inflation targeting and macroeconomic processes (indicators), we need to look at a number of studies undertaken by some of the world’s top scholars. Although there is no clear definition of whether this policy belongs to fiscal or monetary policy, the processes connected with inflation and its limitation are interpreted within the framework of monetary policy because the main goal of most central banks is to ensure low and stable price levels.

In particular, Junankar, Wong (2020) emphasizes need for an independent and fully functioning Central Bank to influence consumption and investment spending. He mentions that inflation may also increase, often due to non-monetary and external factors, including weather and oil prices. Moreover, it became obvious over the investigation period that inflation rates were falling not only in nations that target inflation (21%) but also in countries that did not target inflation at all (10 percent). Both countries that apply the regime (5%) and those that do not have good economic development (18 percent). In all groups of countries, however, inflation and economic growth volatility has diminished.

According to a study by Marcelo Arbex, Sidney Caetano, and Wilson Correa (2019) on the macroeconomic effects of inflation targeting, random shocks that lead to stochastic changes in inflation targeting affect not only the monetary government but also its macroeconomic targeting fluctuations. It also shows that as the volatility of the inflation target increases, unemployment increases and inflation decreases regardless of the interest rate rule.

Using a dynamic model based on panel data, Kartaev et al (2016) investigated the influence of the inflation targeting regime on GDP dynamics in the short and long term. This influence was also evaluated using data from 141 countries from 1980 to 2012. The study concludes that the transition to inflation targeting in developed countries will not lead to a decline in production. It, on the other hand, has a favorable impact. This is because in industrialized countries, high public confidence in the monetary government avoids high inflation expectations. This regime, on the other hand, does not result increase in production in developing countries.

The study of Ayres et al. (2014) focused on the regional characteristics of inflation targeting policy, examining the impact of a particular time choice on policy decisions and its impact on the six developing regions of the world. Although the direct impact of inflation targeting policy on real GDP is limited, statistically only in certain regions, including Europe, Latin America, North Africa and the Middle East, the impact on real GDP is positive, while in Asia, Africa-Sahara countries inflation rate rose and there was no economic growth. In general, the impact of this regime is short-lived and is aimed at reducing inflation, not stimulating economic growth.

According to B.Bernanke (2004), an important aspect of inflation targeting is stable inflation expectations of business entities in relation to future changes of price levels. Bernanke’s approach is

vital at macroeconomic scale because stable and clear expectations is important for Central Banks to determine monetary indicators and making predictions about price changes, fluctuations of exchange rates and unemployment in future.

Kurihara (2013) and Walsh (2009) studied correlation between inflation targeting regime and economic growth. They found that inflation targeting policy does not directly lead to GDP growth. This makes it even more important to study macroeconomic implications of inflation targeting and its impact on price dynamics.

S.Moiseev proposed "overnight" interest rates, medium-term interest rates, and monetary indicators as operational monetary policy objectives for central banks adapting to inflation targeting, as well as the central bank's interest rate corridor system, specifically methods of managing interest rate corridor, and its benefits and drawbacks.

Moiseev also notes that Because of its ineffectiveness and commercial banks also have the opportunity to avoid this instrument with the help of financial innovations in developed markets. According to Moiseev, most of European countries have already abandoned reserve requirements for financial institution as they adapt to inflation targeting regime. Due to its ineffectiveness, commercial banks have the option of avoiding this instrument through financial innovations in most developed countries.

It's worth noting that the research above came to different conclusions about the positive, negative, and neutral macroeconomic effects of inflation targeting. There has been few research on the influence of inflation targeting on economic growth so far. While the majority of research have concluded that inflation targeting is effective, some have come to the opposite conclusion. In addition, inflation targeting has been found to be ineffective in a number of studies. Following that, the paper looks at the economic aspects of the switch to inflation targeting.

Methodology:

1.1. Empiric analysis of foreign countries

The global economy is in a state of flux. The complex situations of world economy have had a significant impact on the financial systems of stable economies, rather than developing countries with low incomes, over the last decade. The general economic and social situation in the United States has deteriorated as a result of the economic crisis, financial crisis, and breakdown of market regulation and it has taken the form of a large-scale worldwide crisis in a short period of time.

The chaotic and inefficient operation of the financial sector, large-scale capital losses, and the reversal of capital flows geographically have resulted in fiscal disruptions in developed countries as a result of the crisis of large financial institutions that are critical to the stability of the economic system. As a result, international financial institutions, as well as the G7 and G20 countries, have started to utilize monetary policy instruments more actively to address economic instability. The primary objectives were to maintain price stability, regulate money supply and avoid the budget deficit.

In these circumstances, some countries have used gold and foreign exchange reserves to maintain currency stability, while others have attempted to control inflation by raising key policy rate to avoid an excess of money supply. At that time, these measures showed that monetary policy was one of the most effective tools in crisis period and its scope would be even more wider and successful if the economy was under stable condition. However, against the backdrop of the economic crisis, currency depreciation and the rise in the consumer price index necessitated managing inflation of national currency. As a result, the European Central Bank was one of the first to utilize the inflation targeting strategy to control euro inflation.

The effort to limit inflation eventually paid off, as the Eurozone faced deflation for the first time in 30 years in 2011. This, in turn, proved the possibility of implementing inflation targeting not only in monetary policy, but also in ensuring macroeconomic stability.

It became obvious, in particular, that monetary policy, which aims to control inflation, has a unique role to play in the regulation of the economy and the achievement of economic development targets.

As a result, monetary policy and the country's role in global economy have been pushed to the background, and some theories that place a premium on the financial market have faded away, replaced

by theories that see monetary policy as one of the most important components of government economic policy. Econometric models for factor analysis of monetary policy have been developed based on novel methodologies, and a number of scientific investigations have been done in this area.

B. Bernanke, a professor at Princeton University and F. Mishkin, an expert at the National Bureau of Economic Research, investigated prospect of broader inflation targeting regime (1997) on the basis of the experience of industrialized countries. The study proves that inflation targeting was not a simple theoretical concept at that time, it was not only a support for monetary policy to monitor the consumer price index, but also a tool to stabilize the national economy and establish a program for its implementation. Inflation targeting regime was only considered a theoretical strategy based on the consumer price index at that time, it was only partially implemented in 1990 in New Zealand, 1991 in Israel and Canada, 1992 in the United Kingdom, 1993 in Australia, and 1994 in Sweden.

T. Petursson (2005), a professor at Reykjavik University, examines the outcomes of inflation targeting implementation with example of 21 successful countries. According to his research, the average inflation rate in countries that have implemented a targeting mechanism was 31.4 percent five years prior to implementation, 7.2 percent one year before implementation and 4.5 percent one year after implementation.

G.Debelle (1997), an expert at the International Monetary Fund, examines the outcomes of inflation targeting, as well as the issues that have arisen and the methods used to overcome them. He was able to develop a number of systemic interrelationships by examining the impact of national economic policies on lowering inflation. Inflation can be kept lower through reduced excise taxes in Canada, a higher key policy rate in New Zealand, and stiffer mortgage lending rules in Australia. Based on his findings, the economist proposes the introduction of “soft” and “hard” marginal inflation corridors.

A.Vredin (2015), an expert at the International Bank for Reconstruction and Development, studies the importance of inflation targeting in ensuring stability of financial sector. He develops a Taylor rule-based model to examine the influence of inflation targeting on financial stability. His research reveals that financial market imbalances hinder the efficiency of inflation targeting, while social sector support, particularly social protection measures, helps to lower inflation.

T.Ito (2010), a professor at the University of Tokyo in Japan, argues that inflation targeting should take into account market conditions before setting target limits, particularly the price of assets in the capital market. He harshly criticized the flexible inflation targeting strategy, claiming that it failed to work during the 1997 Asian crisis, the 2001 dotcom bubble, and the 2007-2009 global financial crisis. Instead of such an inefficient strategy, he advocates basic inflation management and offers implementation of a tight regulation system of banks and financial markets.

3.2. 4x2 matrix model for Uzbekistan:

The global financial and economic crisis, as previously mentioned, has left a long-term and very complicated mark on the global financial system. As the worldwide financial system began to exert new influences on global economic stability through new channels, the world’s leading economists and experts set out to develop an integrated model that reflect influence of wholly new variables by using a novel technique. A committee of specialists formed at the World Bank’s initiative has developed a new model - a 4x2 matrix model - as a result of two years of research. This model examines the general state of the financial system (investment and capital flows) as well as the banking system (monetary policy) using four criteria: two systems that were unable to sustain severe blows of the global financial and economic crisis. This model, which has a simple empirical structure, uses a chain technique to represent the overall condition in the banking and financial markets based on various criteria.

Due to the fact that central banks conduct monetary policy and banks operate on monetary system, banking system (monetary policy) section of the 4x2 matrix model is selected in this article, and the practice of Uzbekistan from 2011 to 2020 is assessed using four criteria (Table 1).

Table 1.

Stability matrix of monetary policy in Uzbekistan in 2011-2020

Criteria	*Significance (scope)*			*Money-currency*			*Stability*		*Regulation*	
Indicators	The ratio of the banking system's loan portfolio to GDP	The ratio of assets of financial institutions to GDP	The ratio of deposits of financial institutions to GDP	The ratio of money supply to GDP	The ratio of gold and foreign exchange reserves to external debt	Exchange rate fluctuations (annual change against the US dollar)	Capital adequacy ratio	Liquidity ratio	Key policy rate	Reserve requirment rate
2011	0.202	0.353	0.231	0.165	2.657	-0.095	0.242	0.651	0.12	0.15
2012	0.211	0.370	0.211	0.173	2.412	-0.105	0.243	0.650	0.12	0.15
2013	0.223	0.369	0.219	0.188	2.344	-0.110	0.243	0.651	0.12	0.15
2014	0.240	0.388	0.197	0.196	2.128	-0.100	0.238	0.646	0.10	0.15
2015	0.249	0.381	0.208	0.185	1.943	-0.160	0.236	0.645	0.09	0.15
2016	0.217	0.347	0.153	0.193	1.740	-0.130	0.147	0.644	0.09	0.15
2017	0.365	0.551	0.197	0.207	1.674	-0.602	0.188	0.561	0.14	0.15
2018	0.329	0.527	0.172	0.234	1.672	-0.026	0.156	0.815	0.16	0.15
2019	0.415	0.535	0.178	0.197	1.544	-0.123	0.235	0.891	0.16	0.14
2020	0.447	0.631	0.198	0.178	1.347	-0.093	0.184	0.674	0.14	0.14
characteristics of influence										

Positive variable neutral

Monetary policy instruments had a diverse impact during the study period. A reduction in the refinancing rate boosted money supply, but a shift in reserve requirements stifled inflation. Also, the ratio of money supply to GDP was variable. The economic-mathematical model used in this article is based on econometric, analytical methods, which in turn were implemented in two stages. Initially, regression equation was constructed using the least squares method of aggregation of indicators from the 4x2 matrix method in the criteria for regulating economy. To reduce standard error and normalize probability, longer period data was analyzed. The chosen model revealed that, in the framework of inflation targeting, monetary policy instruments such as refinancing and required reserve requirements had a negative impact on economic regulation from 2011 to 2020. Multivariate regression analysis is the simplest and most fundamental way of econometric modeling, and it is on this foundation that more complex and reasonably high-precision analytical models have been developed today.

Based on macroeconomic principles, current monetary theories, and the conclusions of the above-mentioned top economists, as well as the characteristics of the Uzbek economy and monetary system, the following model was developed based on the indicators analyzed in the matrix. Measurement units of indicators were different in this example so they were transformed to a natural logarithm.

$$LnGDP = \alpha_0 + \alpha_1 LnCAR_t + \alpha_2 LnLCR_t + \alpha_3 LnBLP_t + \alpha_4 LnBND_t + \\ + \alpha_5 LnMNM_t + \alpha_6 LnRSD_t + \alpha_7 LnEXC_t + \alpha_8 LnINF_t + \mu_t$$

$$LnGDP = \alpha_0 + \alpha_1 LnCAR_t + \alpha_2 LnLCR_t + \alpha_3 LnBLP_t + \alpha_4 LnBND_t + \\ + \alpha_5 LnMNM_t + \alpha_6 LnRSD_t + \alpha_7 LnEXC_t + \alpha_8 LnINF_t + \mu_t \quad (1)$$

GDP is economic growth (GDP) in period t, CAR is capital adequacy ratio in period t, LCR is liquidity ratio in period t, BND is volume of deposits in period t, BLP is volume of loan portfolio in period t, MNM

(M2) is broad money supply in period t, RSD - ratio of gold and foreign exchange reserves and public debt in period t, EXC - exchange rate in period t, INF - inflation rate in period t, $\mu_t\mu_t$ - standard error.

Results and discussion:

The co-integration method, a complex econometric method, was used to make the results obtained reliable and stable based on the data collected. A unit root test was performed to determine the interaction properties, stationary signs, and to obtain T-statistics, F-statistics, and corresponding values of R2. In conducting the unit root test, the Phillips-Perron and extended Dickey-Fuller tests examined the integration procedure, i.e., stationary, by determining the simple-level, first-, and second-order differences.

Table 2.

Determination of stationary on the basis of Phillips-Perron and extended Dickey-Fuller tests

Variables	Phillips-Perron test	Extended Dickey-Fuller test
LnGDP	-1.3127	-1.3568
LnCAR	-3.3411	-3.3127
LnLCR	-7.4852	-7.2415
LnBND	-6.9455	-7.0214
LnBLP	-0.4706	-0.4251
LnMNM	-5.1145	-4.9726
LnRSD	-3.2388	-3.4372
LnEXC	-5.1642	-4.8528
LnINF	-1.7284	-1.5769

From results in Table 2, it can be seen that there is no stationary in the unit root test at the normal level. The zero hypothesis was confirmed by the Phillips-Perron and extended Dickey-Fuller tests, which showed that values greater than the critical values of 1%, 5%, and 10% suggested the presence of a unit root at a normal level. Since there is no normal stationary, the stationary variability of the variables in one difference is checked (table 3).

Table 3.

Determination of stationary in one difference based on Phillips-Perron and extended Dickey-Fuller tests

Variables	Phillips-Perron test	Extended Dickey-Fuller test
LnGDP	-2.8499	-2.8499
LnCAR	-1.3389	-1.3389
LnLCR	-3.5462	-3.5462
LnBND	-5.1196	-5.1196
LnBLP	-0.7633	-0.7633
LnMNM	-4.1224	-4.1224
LnRSD	-3.8137	-3.8137
LnEXC	-2.1468	-2.1468
LnINF	-1.2577	-1.2577

As it can be seen from table 3, all variables are stationary in one difference and in I (1) order, satisfying the stationary conditions. The co-integration method is normally used in the analysis of non-stationary long-term equilibrium relationships. In other words, a co-integration relationship exists if the non-stationary variables change in a mutually consistent manner and are in equilibrium over time. Therefore, even if the time intervals are not stationary, their linear combination can be stationary. Such a combination is called a co-integration equation and has a co-integration vector. As a result, the Johansen co-integration test was used to examine the long-term connection between the variables in our model (Table 4).

Table 4.

Johansen co-integration test results

The number of assumed cointegration equations	Unique number	«Trace» statistics	Critic value	Probability (0.05)**
No*	0.56964	47.15223	39.11475	0.0001
1	0.44637	29.38628	32.58297	0.0912
2	0.26275	14.40413	18.17935	0.1485

** A zero hypothesis in the confidence interval with a coefficient of 0.05 is not valid.*
*** MacKinnon-Hugh-Michelis p value*

Table 4 shows that the variables had a long-term relationship according to the Johansen co-integration test. The eigenvalue statistics, on the other hand, revealed that the zero hypothesis was not valid and there was co-integration in the 5% confidence interval.

According to Engle Granger theory, if dependent variable (economic stability) and independent variables (reserve ratio, refinancing rate, and ratio of sterilization volume to GDP) are co-integrated, there must be an error correction mechanism. According to the Engle Granger specification, the error correction mechanism of co-integration relationship is as follows:

$$\Delta y_t = \emptyset_{10} + \sum_{j=0}^{s} \emptyset_{11j} \Delta p_{t-j} + \sum_{i=0}^{q} \emptyset_{12i} \Delta y_{t-i} + p_1 \mu_{t-1} + e_{1t}$$

$$\Delta y_t = \emptyset_{10} + \sum_{j=0}^{s} \emptyset_{11j} \Delta p_{t-j} + \sum_{i=0}^{q} \emptyset_{12i} \Delta y_{t-i} + p_1 \mu_{t-1} + e_{1t} \quad (2)$$

$$\Delta p_t = \emptyset_{20} + \sum_{j=0}^{s} \emptyset_{21j} \Delta y_{t-j} + \sum_{i=0}^{q} \emptyset_{22i} \Delta p_{t-i} + p_2 \eta_{t-1} + e_{2t}$$

$$\Delta p_t = \emptyset_{20} + \sum_{j=0}^{s} \emptyset_{21j} \Delta y_{t-j} + \sum_{i=0}^{q} \emptyset_{22i} \Delta p_{t-i} + p_2 \eta_{t-1} + e_{2t} \quad (3)$$

Here, Δ is the primary difference operator, $\mu_{t-1}\mu_{t-1}, \eta_{t-1}\eta_{t-1}$ is the error corrector nomials, $e_{1t}e_{1t}, e_{2t}e_{2t}$- is the residual.

Based on the above formula, the error correction model for our model is as follows:

$$\Delta LnGDP = \alpha_0 + \alpha_1 \Delta LnCAR_t + \alpha_2 \Delta LnLCR_t + \alpha_3 \Delta LnBLP_t + \alpha_4 \Delta LnBND_t + \\ + \alpha_5 \Delta LnMNM_t + \alpha_6 \Delta LnRSD_t + \alpha_7 \Delta LnEXC_t + \alpha_8 \Delta LnINF_t + \mu_{t-1}$$

$$\Delta LnGDP = \alpha_0 + \alpha_1 \Delta LnCAR_t + \alpha_2 \Delta LnLCR_t + \alpha_3 \Delta LnBLP_t + \alpha_4 \Delta LnBND_t + \\ + \alpha_5 \Delta LnMNM_t + \alpha_6 \Delta LnRSD_t + \alpha_7 \Delta LnEXC_t + \alpha_8 \Delta LnINF_t + \mu_{t-1} \quad (4)$$

Table 4.

Error Correction Model (Dependent variable: GDP)

Variable	Coefficent	Standart error	t-statistics	Probability
C	0.2890	0.2457	1.9729	0.9527
$\Delta LnCAR$	0.047	0.7124	0.0198	0.0371
$\Delta LnLCR$	0.002	0.0533	0.0099	0.3628
$\Delta LnBLP$	0.014	0.3741	0.0722	0.0426
$\Delta LnBND$	-0.033	0.0047	-0.0013	0.1253
$\Delta LnMNM$	0.064	0.8364	0.0334	0.0488
$\Delta LnRSD$	0.182	0.9807	1.0829	0.4255
$\Delta LnEXC$	-0.083	0.0021	-0.0072	0.0324
$\Delta LnINF$	0.054	0.8179	0.9593	0.0038
U_{t-1}	0.4618	0.2321	2.6816	0.0149
R^2	0.6132	Everage dependent variable value		0.1085
F-Statistics	4.9822	Durbin-Watson statistics		1.8771

Probability (F-statistics)	0.074

The Durbin-Watson statistic (1.8771) revealed no autocorrelation, however the F-statistic (4.9822) revealed that the Fisher variance was significant for GDP, as shown in Table 5.

Conclusion:

From the results of the analysis presented in the table above, it can be concluded that in the context of the transition to inflation targeting in Uzbekistan, monetary policy has a direct impact on the regulation of the economy. There is a link between the monetary policy instruments in the model and economic growth, change of these instruments has an impact on the country’s GDP. The improvement in bank capital adequacy, loan portfolio, money supply and decline of inflation all help to maintain macroeconomic stability. However, increasing volume of bank deposits and depreciation of Uzbek sum has a negative impact on economic growth. In addition, liquidity ratio of banks and gold and foreign exchange reserves are insignificant and have no effect on economic growth.

References:

1. International Monetary Fund. “Inflation Targeting”, Page 91. Accessed Aug. 12, 2020.
2. Junankar, Pramod N. (Raja); Wong, Chun Yee (2020) : The Impact of Inflation Targeting on Inflation and Growth: How Robust Is the Evidence?, IZA Discussion Papers, No. 13284, Institute of Labor Economics (IZA), Bonn.
3. Marcelo Arbex, Sidney Caetano and Wilson Correa. “Macroeconomic effects of inflation target uncertainty shocks” Economics Letters Volume 181, August 2019, Pages 111-115
4. Картаев Ф. и д. “Эконометрическая оценка воздействия таргетиро-вания инфляции на динамику ВВП” Журнал НЭА, №1 (29), 2016, с. 107–128
5. Kelly Ayres, Ariel R. Belasen, Ali M. Kutan, “Does inflation targeting lower inflation and spur growth?”, Journal of Policy Modeling, Volume 36, Issue 2, 2014, Pages 373-388,
6. Bernanke B. Inflation targeting // Federal reserve bank of St. Luis Review. – 2004. – p. 165-168.
7. Bernanke B., Mishkin F. “Inflation Targeting: A New Framework for Monetary Policy?” Journal of Economic Perspectives, 11 (2): 1997. -p. 99.
8. Kurihara V. Does adoption of inflation targeting reduce exchange rate volatility and ehhance economic growth // Journal of world economic research. – 2013. – № 6. – p. 104-109.
9. Walsh C. Inflation targeting: what we learned? // International Finance. – 2009. – p. 195- 233.
10. Моисеев С.Р. Инструментарий денежно-кредитной политики центрального банка для таргетирования инфляции. Автореферат на соис. учен. степ. докт. эк. наук. – Москва, 2009. – 49 с.
11. Thorarinn G. Petursson, “Inflation Targeting and its Effects on Macroeconomic Performance,” SUERF Studies, SUERF - The European Money and Finance Forum, №: 2005/5 edited by Morten Balling, August. 2005. –p. 22.
12. Guy Debelle, “Inflation Targeting in Practice,” IMF Working Papers 1997/035, International Monetary Fund. 1997. –pp. 5, 9.
13. Anders Vredin, “Inflation targeting and financial stability: providing policymakers with relevant information,” BIS Working Papers 503, Bank for International Settlements. 2015. –p. 5.
14. Ito, Takatoshi, “Monetary Policy and Financial Stability: Is Inflation Targeting Passe?,” ADB Economics Working Paper Series 206, Asian Development Bank. 2010. –p. 1.
15. Duskobilov, U., 2017. Impact of Economic Regulation through Monetary Policy: Impact Analysis of Monetary Policy Tools on Economic Stability in Uzbekistan. *International Journal of Innovation and Economic Development, 3(5),* pp.65-69.

Duskobilov, Umidjon, Regulation of Economy Through Monetary Policy: Empirical Analysis of Impact Channels in Case of Uzbekistan (April 1, 2017). Research Journ al of Finance and Accounting, Vol. 8, No. 2, pp.123-127.

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Litsenziya AI № 2537 08.02.2022 y. Bosishga ruxsat etildi 19.10.2023.
Qog'oz bichimi 60x84 $^{1}/_{8}$. Shartli bosma tabog'i 31,6. Raqamli bosma.
Adadi 50 nusxa. №16/10-2023 - sonli buyurtma.

"Zarafshon Foto" MCHJning matbaa bo'limida chop etildi.
100164, Toshkent sh., Mirzo Ulug'bek tumani, Shahriobod ko'chasi, 3-uy.

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