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**MACROECONOMIC FORECAST AND KEY RATE IN
MONETARY REGULATION OF THE RUSSIAN ECONOMY**

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Abstract

The paper is devoted to the issues of monetary regulation of the Russian economy in the conditions of the aggravation of internal factors, causes and sources of destabilization of the reproductive process, as well as increased external shocks to the economy and social sphere of the Russian Federation. The basic foundations of inflation targeting in modern Russia were highlighted and considered, namely the setting of the inflation goal, the adoption of a decision on the basis of the macroeconomic forecast, the use of a key rate as a monetary policy tool, and the expansion of information openness of communication in the activities of the Bank of Russia. Particular attention is paid to the issues in the area of decision-making by the Bank of Russia, including at a key rate based on its medium-term forecast of the economic development of the Russian Federation. It is shown that the increase in the number of macroeconomic forecast scenarios does not eliminate the problem of the quality of the macroeconomic forecast – verification of forecasts themselves, and above all the base scenario. The paper considers the impact of the real neutral interest rate on the level of the key rate. Recommendations are made regarding the transformation vector of the Bank of Russia’s monetary policy in terms of the macroeconomic forecast toolkit and the application of the global accounting practice for the real neutral interest rate when the Bank of Russia forms a decision on the level of the key rate.

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1. Introduction

The Bank of Russia still maintains a balanced decision-making approach based on a risk balance assessment, i.e. ensuring inflation near 4 % primarily based on the impact of the key rate on the economy (real and financial). Thus, during the spread of the coronavirus pandemic, the Bank of Russia, along with the transition to soft monetary regulation of the Russian economy, adopted a set of measures aimed at protecting the interests of citizens (support for the development of mortgages, compensation to banks for capital adequacy standards associated with the recognition of losses on mortgages, the introduction of a new methodology for assessing the credit risk on mortgages and the reduction of macroprudential capital requirements on newly provided mortgages), support of corporate borrowers (promotion of loan restructuring for companies), preservation of the potential of a financial sector for economy crediting (expansion of the bank refinancing program, reduction of the key rate, removal of industry restrictions, regulatory decisions mainly related to requirements for capital adequacy of banks, provision of the possibility of using supervisory capital adequacy buffers and mitigation of macroprudential requirements for capital adequacy, etc.) and reduction of regulatory and supervisory burden (suspension of verification of all financial organizations, extension of deadlines for fulfilling a number of requirements for credit organizations, financial market participants, collective investment market entities and microfinance institutions, legislative changes to extend the deadlines and simplify a number of procedures governing the work of joint-stock companies).

The choice of the inflation targeting regime by the Bank of Russia is based on the studies indicating that the transition to targeting leads to a decrease in the level (Brainard, 2018) and volatility (Prasertnukul, 2010) of inflation, a decrease in the impact of exchange rate fluctuations on price dynamics (Shu & Haichun, 2009), a decrease in risk premiums and real interest rates (Fratzcher, 2016). Besides, today the Bank of Russia refers to the recent studies (Holston, 2016; Laubach & Williams, 2003) concerning the positive impact of the inflation targeting regime on the long-term growth, as well as regarding the fact that a decrease in inflation expectations following a decrease in inflation and the formation of public confidence in the inflation goal allow more actively pursuing counter-cyclical monetary policy and smoothing the impact of negative external factors on the economy (Luke, 2018).

2. Problem Statement

Inflation targeting is carried out in the Russian Federation by the Bank of Russia (2020) at a level of 4 %, while in other countries with market economies – at a level of 1–3 %. The Bank of Russia explains the choice of the target inflation rate of 4 % by the features of pricing, the structure of the Russian economy and the need to minimize the risks of deflationary trends in the markets of certain goods, and therefore, according to the opinion of the Bank of Russia, it is not yet possible to maintain inflation at the level of 1–3 % in Russia by monetary policy measures. Hence, the Bank of Russia set a target for the growth of the total consumer price index in the Russian Federation with a certain “margin”. This year (2021) will mark 30 years of market Russia, and, in our opinion, this time period was sufficient to create the “necessary market mechanisms” to keep pace with other market states that target inflation within 1–3 %.

3. Research Questions

The Bank of Russia is developing a monetary policy in the form of a medium-term document – the Main Directions of the Unified State Monetary Policy for the next year and a two-year planning period (hereinafter, MDUSMP). Thus, the strategic document of the Bank of Russia – *The Main Directions of the Unified State Monetary Policy for 2021 and the period 2022 and 2023* (hereinafter, MDUSMP for 2021–2023) – reflects the key approaches of the regulator to maintain price stability.

Today, within the framework of MDUSMP for 2021–2023 (Bank of Russia, 2020) the Bank of Russia adheres to the inflation targeting regime of 4.0 % based on: public inflation target; decision-making based on the macroeconomic outlook; key rate as a monetary policy tool; information openness and expansion of communication in the activities of the Bank of Russia. Today, the issues of decision-making by the Bank of Russia on the basis of macroeconomic forecasts, and in particular concerning the key rate, are particularly relevant in the field of monetary regulation of the Russian economy. Therefore, the subject of the study is, on the one hand, the quality of macroeconomic forecasts of the Bank of Russia, and on the other hand, the forecasts of what indicators underlie the decision of the Board of Directors of the Bank of Russia concerning the key rate.

According to MDUSMP, the Bank of Russia (2020) presents basic and alternative scenarios for the medium-term (three-year) economic forecast of the development of the Russian economy. Thus, in 2020, according to MDUSMP for 2021–2023, with regard to the basic scenario of the macroeconomic forecast, the Russian economy will resume a steady recovery in early 2021 and in the first half of 2022 it will reach a potential output level, maintaining until the end of the forecast horizon. Besides, the monetary policy of the Bank of Russia in 2021 will remain soft, and then gradually return to neutral in the second half of the forecast period as inflation on target stabilizes. The Bank of Russia makes decisions on the monetary policy on the basis of the medium-term macroeconomic forecast. Therefore, it is important to note that in 2019 when developing the medium-term forecast for the period 2020–2022 the Bank of Russia assumed that according to the basic scenario for the development of the Russian economy, the growth of gross domestic product (hereinafter, GDP) for 2020 was projected at plus 1.5–2.0 % (Bank of Russia, 2019). In fact, for 2020, according to Rosstat (2021), the GDP growth rate was minus 3.1 %, which shows a deviation from the expected value in the base scenario in the range from minus 4.6 % to minus 5.1 %. So, according to Rosstat (2021), this was affected by a decrease in domestic final demand by 5.0 % and an increase in net exports of goods and services due to an advanced reduction in imports by 13.7 % compared to exports, which decreased by 5.1 %. At the same time, Rosstat links the very decline in Russia's GDP with both the restrictive measures introduced in 2020 aimed at combating the coronavirus pandemic and the drop in the global energy demand. It is also important to note that in 2019, when developing the medium-term macroeconomic forecast, the Bank of Russia proceeded from the basic (most expected) and two alternative scenarios (less expected). However, unfortunately, the danger of a pandemic and the intensification of similar external shocks on the Russian economy were not considered among external factors. Meanwhile, it should be noted that among external factors the MDUSMP for 2020–2022 (Bank of Russia, 2019) notes the prospects for the growth of the global economy, which significantly worsened against the background of increasing trade contradictions and the actions of other geopolitical factors of 2019 year. This cut in two consecutive medium-term macroeconomic forecasts

clearly demonstrates the presence of serious problems both in the development and implementation of the Bank of Russia's monetary policy. Let us dwell on the assessment of the quality of development of the medium-term macroeconomic forecast. So, in 2017, within the framework of MDUSMP for 2018–2020 (Bank of Russia, 2017) the Bank of Russia based the macroeconomic forecast on two scenarios – basic and alternative, with a dynamics of a higher price for Urals crude oil. As we see, the risk scenario in 2017 was not even considered by the Bank of Russia when compiling a medium-term macroeconomic forecast. In 2018, within the framework of MDUSMP for 2019–2021 (Bank of Russia, 2018) the Bank of Russia considered two main scenarios of the medium-term forecast for the development of the economy – basic and with constant oil prices, which differed only in terms of external conditions for the Russian economy. Additionally, in 2018, the Bank of Russia considered a risk scenario, which laid the deterioration of mainly external conditions. In 2019, within the framework of MDUSMP for 2020–2022 (Bank of Russia, 2019) the Bank of Russia compiled the forecast for the development of the Russian economy based on three scenarios: basic and two alternative – a scenario with high oil prices; risk scenario. Finally, in 2020, within the framework of MDUSMP for 2021–2023 (Bank of Russia, 2020) the Bank of Russia made a macroeconomic forecast according to four scenarios: basic (most likely) and three alternative – inflationary, disinflationary and risky. As we see, understanding the significance of the quality of the macroeconomic forecast the Bank of Russia systematically increased the ability to take into account the external and internal conditions of the development of the Russian economy. However, the problem is not only in the quality of MDUSMP development, but also in its proper implementation. It is this aspect that becomes clear when considering the actual data for 2020 with the forecast parameters for the risk scenario, the worst of all 4 scenarios (Bank of Russia, 2019). In fact, the price of Urals crude oil in 2020 was \$17.7 above the risk scenario forecast. The actual inflation for 2020 was 2.8–4.2 percentage points lower than the forecast for the risk scenario. The rate of GDP decline for 2020 was 2.5–3.0 percentage points below the level of the forecast for the risk scenario. The actual decrease in final consumption, gross savings, exports and imports in comparison with the forecasts of their decrease in the risk scenario turned out to be more significant (Bank of Russia, 2019). This confirms our thesis that there are problems in the development and implementation of monetary policy in Russia, since it was 2020 that showed that an increase in the number of macroeconomic forecast scenarios and their parameters did not cover the potential damage to the output potential from the impact of the COVID-19 pandemic.

It is noteworthy that the Bank of Russia conducts its monetary policy for the period from September 2018 to February 2021 based on the use of a key rate. Thus, in the period from September to December 2018 year, the Bank of Russia doubled the key rate by a total of 0.5 % (0.25×2) caused by an increase in inflation expectations due to the weakening ruble and an increase in the value added tax. In the period of January–May 2019, the Bank of Russia kept the key rate unchanged, since annual inflation was below the expectations of the Bank of Russia, in March it rose to 5.3 % since, according to the Bank of Russia, the price reaction to increase the value added tax was moderate. According to the Bank of Russia, the dynamics of prices and the economic situation in June–October 2019 indicated the possibility of reducing the key rate, therefore, during this period, based on the economic situation (inflation slowed down, economic activity was weak), the regulator reduced the key rate four times (in June, July, September, October) in general by 1.25 % – in line with the easing of its monetary policy. Between

October 2019 and February 2020, the Bank of Russia continued to soften its monetary policy – the key rate was reduced from 7.50 to 6.00 %. The regulator explained this by the need to maintain inflation near 4 % on the forecast horizon – during this period, inflation slowed down faster than predicted. Since March, 2020 because of COVID-19 the situation in world and Russian economies, and the corresponding financial markets, significantly worsened as uncertainty increased, and as a result the risks grew that led to a pause in decrease in the key interest rate. From April 2020, the Bank of Russia moved to a soft monetary policy resuming a reduction in the key rate – during April-September 2020 the key rate was reduced to 4.25 %. According to the basic scenario, within the framework of MDUSMP for 2021–2023, the Bank of Russia provides for an assessment of the feasibility of further reduction of the key rate in order to ensure stabilization of inflation in Russia near 4 %. The neutral rate of interest, one of the key concepts of macroeconomic theory, was introduced in 1898 by Knut Wicksell (Wicksell, 1936). A neutral rate of interest refers to the level of the Central Bank's key rate, at which the national economy is steadily in full employment, and inflation is steadily maintained at the target level. The neutral interest rate is a benchmark by which, on the one hand, the orientation of the monetary policy of the Bank of Russia is estimated, and on the other hand, the average level of interest rates in the economy is determined for long periods of time (Bank of Russia, 2020). There are longer-ran and short-term neutral rates. At the same time, the short-term neutral rate fluctuates around the long-term neutral rate depending on the influence of cyclical factors (external conditions, current business activity, fiscal policy measures, etc.). Besides, the short-term neutral rate is also affected by the degree of anchoring on inflation expectations, inflation prices and other factors. The current orientation of the monetary policy of the Bank of Russia is correct to discuss precisely the short-term neutral rate. It is important to note that quantifying the short-term neutral rate is very problematic even in the economies with much longer history of inflation targeting than the Russian Federation, and central banks usually do not make such quantitative estimates (Fouejieu, 2013). But when making decisions, the central bank of the modern state takes into account which direction and how significantly the short-term neutral rate deviates from the long-term at present and how it will change in the future. The real neutral rate is determined by the structure of the economy, the level of risks when investing in financial and non-financial assets, as well as the readiness of economic agents to accept these risks. The nominal neutral rate is equal to the sum of the real neutral rate and the expected inflation. With inflation expectations anchored on the goals, the expected inflation coincides with the goal of the central bank (in case of the Bank of Russia this goal is 4 % per year). However, simply by keeping the key rate equally neutral, the central banks cannot deliver inflation at their target level. Of course, the economic system is very complex, subject to continuous influence of various and unpredictable external and internal factors, which leads to deviations in the real rate of economic growth from its potential level and as a result of the deviation of actual inflation – from the target level. Thus, if, under the influence of any factors, the growth rate of the gross domestic product is higher (below) the potential level, then this, as a rule, entails the acceleration (slowdown) of inflation. There are studies regarding quantitative estimates of the real neutral rate published in foreign and Russian scientific and special literature (Holston, 2016; Isakov, 2019; Kreptsev, 2016; Luke, 2018). The fundamental study on the quantitative analysis of the neutral interest rate is the joint work of Laubach and Williams (2003). The long-term neutral rate for

Russia (depending on the models and parameters used) is estimated at 1.0–3.0 %, and according to the Bank of Russia, it estimates at 2–3 %, and nominal – at 6–7 % (Bank of Russia, 2019).

4. Purpose of the Study

Analyzing the trends in the financial and monetary regulation of the Russian economy in the face of increasing external shocks (Tsakaev, 2020) it is impossible to neglect the ongoing transformations in the basics of inflation targeting by the Bank of Russia since 2015. Thus, the regulator of the Russian financial market in the implementation of its monetary policy is based, on the one hand, on the structural and institutional characteristics of the Russian economy, and on the other, on the basis (principles and tools) of monetary regulation of the Central Bank of the Russian Federation. The observed changes in the work of the Bank of Russia testify to the transformation of its monetary policy, firstly, in terms of the formation of the goal and its specificity in the tasks for the near and distant future (the transition from targeting the money supply and exchange rate to targeting inflation). Secondly, in terms of selection and use of new instruments, methods and mechanisms of monetary policy (operations on the open market of securities using repos, currency SWAPs, transmission mechanism, key rate, etc.). Thirdly, parts of the selection and placement of personnel in the functional and linear (territorial) divisions of the Bank of Russia, professionally competent and capable staff (capable of logical completion of tasks). All these changes are manifested in the basic foundations of the monetary policy of the Bank of Russia – in the direction of establishing a public inflation goal, making decisions on the basis of the medium-term macroeconomic forecast, information openness of the regulator's activities, using the key rate as the main tool, expanding communication in the activities of the regulator and the emission center. The purpose of this paper was to disclose the ongoing transformations of the fundamentals (principles) of the monetary policy of the Bank of Russia, their assessment and analysis in order to make the necessary adjustments in the activities of the regulator.

5. Research Methods

The study utilized the following: general scientific methods of cognition – observation and collection of actual material, method of scientific abstractions, method of analysis (study of an object in parts) and synthesis (study of an object as a whole) concerning the problem of monetary regulation of the Russian economy, regarding the regulation of the inflation targeting process on the basis of medium-term macroeconomic forecasts of the Bank of Russia and reports on the adoption of decisions on the key rate by the Board of Directors of the Bank of Russia.

6. Findings

First, the studies showed that the issues of monetary regulation of the Russian economy in the face of aggravation of internal factors, causes and sources of destabilization of the reproductive process, as well as increased external shocks (COVID-19 pandemic, sanctions of the United States and other countries, trade wars in the field of energy resources, cryptocurrency expansion, etc.) to the economy and social sphere of the Russian Federation require greater attention not only from the Bank of Russia, but

also from the Government of the Russian Federation. Second, the Bank of Russia targets inflation on the basis of the inflation goal (increasing publicity); decision-making based on the macroeconomic outlook; the key rate as a monetary policy tool; information openness and communication in its activities. Third, it was revealed that the increase in the number of macroeconomic forecast scenarios does not eliminate the problem of the quality of the macroeconomic forecast – verification (accuracy) of forecasts themselves, and above all the base scenario. Fourth, the application of pro-inflationary and deflationary scenarios in the medium term does not guarantee the timeliness of the Bank of Russia's decisions at the key rate. Fifth, the application of the risk scenario of the macroeconomic forecast does not provide coverage of the depth of negative consequences from the influence of external and internal factors on the Russian economy. Sixth, the increase in the number of meetings of the Board of Directors of the Bank of Russia (from four to eight) to decide on the key rate does not solve the problem of timeliness and adequacy of the change in the key rate. Seventh, the consideration of the key rate issue should be based on estimates of the short-term and long-term real neutral rate.

7. Conclusion

In order to improve the efficiency of monetary regulation of the Russian economy the Bank of Russia definitely needs to expand the list of basic principles to ensure an inflation targeting regime to include a real neutral interest rate (short-term and long-term) as a guideline. This will provide for stable decisions of the Board of Directors of the Bank of Russia concerning the key rate based on the real neutral rate. Besides, to form a statistical base for calculating the short-term real neutral rate, it is sufficient for the Bank of Russia to switch from annual time intervals to monthly intervals – the Bank of Russia will be able to make a decision on the key rate on any date of the current annual period.

The introduction of this benchmark by the Bank of Russia in its practice of monetary regulation in the short and long term will allow for a more flexible response to the emerging dynamics of demand caused by various external and internal factors, and thereby exclude a possible situation, like the COVID-19 pandemic in 2020, US and other sanctions since 2014, etc.

A significant improvement in the quality of macroeconomic forecasting in short-, medium- and long-term horizons is also important not only through the increase in the number of possible forecast scenarios, but also by maximizing the coverage of possible factors, causes and sources of risks in the financial and economic development of modern Russia.

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