CENTRAL BANK INTEREST POLICY: CONCEPTUAL CONCEPTS AND SOCIO-ECONOMIC CONTEXT

INTRODUCTION

The objectives of the central bank interest rate policy can be inflation management within the framework of its targeting strategy, economic growth increase, to influence the exchange rate of the national currency, to balance the payment balance, to prevent the outflow of deposits from commercial banks, to ensure financial stability, to overcome social tension, etc. (DROBYSHEVSKY et al., 2018; SENINA, 2016). Interest rate policy is an integral component of public policy even before the emergence of the central bank as a state institution. To a large extent, this circumstance is explained by the social-economic context. The history of almost all countries of the world knows the examples of social, economic and even political crises, the trigger of which was ineffective or risky monetary policy.

Philosophers have long tried to find a rationale for the interest rate existence and determine its value. Aristotle believed that loaned money did not have the ability to increase and should be returned without any interest. The situation is different with the loan of grain for sowing, the quantity of which will be increased. Thus, Aristotle considered the possibility of interest obtaining depending on the form and trend of property use. Also, philosophers have tried to answer the question of "fair" interest rate. At the same time, the usurious interest was considered as unfair a priori. A certain natural percentage was considered as a fair percentage, the value of which should not be high. They considered even the percentage of wood growth in the lemma, equal to 3% per annum. The philosophers tried to reduce economic values to natural values as the basis of the former.

The substance of value was revealed in the classical school of political economy, which turned out to be labor. This allowed its representatives to develop the doctrine based on high logic, but it was not possible to reduce the percentage to the cost of labor in it. No substance of value was found in the percentage. They created the theory of interest, which derived the value of interest on the basis of equalizing the demand for loan capital and its offer.

Two theories of interest have been developed in the economic literature: the theory of money interest and the theory of real interest (SAMARUKH, 2004). The theory of real interest proceeds from the fact that it acts as an equilibrium value necessary to equalize savings and investment, and the theory of money interest sees a special phenomenon in it, inherent in the money economy and which cannot be unambiguously reduced to a direct equation of savings and investment. In addition to these two theories, there are also the ideas about interest as a profit or as a part of a profit. In particular, A. Smith considered interest to be a part of profit, and J.-B. Say - the whole profit. A. Smith, K. Marx and other economists split profit into two components - interest and entrepreneurial income. Nowadays, interest is not included in profit of economics and is considered as a separate specific type of income.

PHENOMENON OF NEGATIVE INTEREST RATES

The interest rate is the value of money, that is, the fee paid by the borrower for the use of temporarily idle funds. What will the negative interest rate be like then?

Here it is necessary to consider two options for the answer, depending on which interest rate is considered - real or nominal. A negative interest rate occurs when the interest rate falls below the inflation rate. In this case, the interest rate does not even ensure the preservation of the borrowed money purchasing power. This may be due to a sharp surge of inflation, the value of which was not considered in the interest rate when money was borrowed. On the contrary, the phenomenon is represented by the situation of the nominal interest rate negativity, when
the borrower must return a smaller amount of money than that which he received from the lender. How can this be and what is the point of this for the lender?

In practice, a negative nominal interest rate can be set by central banks when accepting money from commercial banks for deposit. The Central Bank ensures the absolute safety of commercial bank funds. In these conditions they are ready to pay for their temporary placement. Keeping money in cash by a commercial bank in its deposit is subject to central bank restrictions and also demands additional costs, including the need for insurance. In the conditions of the economy crisis phenomena, the level of trust in counterparties decreases and the risk of non-return of funds provided to them for temporary use increases. In such conditions, the attractiveness of placing funds in the central bank is growing for commercial banks. During this period, the acquisition of financial or real assets also turns out to be risky due to their value decrease. The central bank turns out to be the only financial institution that is trustworthy among economic agents and the institutions that are willing to pay it to keep funds in their nominal value. The use of negative nominal interest rates by Central banks is considered as unconventional monetary policy. A negative interest rate has limitations and usually does not go beyond minus one percent. It is generally accepted that when a negative interest rate is reached, the economy stimulation based on the use of interest rates exhausts itself, and the transition to the economy stimulation by the money supply expansion also has its limits, since this leads to inflation increase, which gives rise to a set of social-economic problems (BURLACHKOV, 2016; PRUDNIKOVA, NIKOLAENKOVA, 2016).

THE MECHANISM OF INTEREST RATES IN MONETARY POLICY: TAYLOR’S RULE

A significant contribution to the interest rate understanding and the need to change it by the central bank was made by J. Taylor, who proposed his well-known rule in 1993, which was named in his honor (TAYLOR, 1993). J. Taylor considers the interest rate as the sum of inflation and the real interest rate, the value of which he defined at 2% per annum. This interest rate is the optimal long-term one, and the short-term interest rate can deviate from it due to two factors: 1) deviations of the actual inflation rate from the desired (expected, targeted) level; 2) deviation of actual GDP from potential GDP. Both of these deviations have a linear effect (with decreasing coefficients) on the nominal interest rate level.

Initially, Taylor used the value of 0.5 as a reduction factor. This means that, for example, the deviation of actual GDP from its potential value by 5% in order to revitalize economic activity requires the interest rate reduction by 2.5% (5% × 0.5). An excess of actual inflation over expected (targeted) inflation by 3% will require the interest rate reduction by 1.5% (3% × 0.5). This must be done to combat inflation. The cumulative result will be the central bank need to reduce the discount rate by 1% (2.5% - 1.5%), which will simultaneously achieve two goals - inflation reduction and economic growth increase, restoring the potential volume of GDP. In this case, GDP growth will have an impact on inflation rate reduction due to value-added production increase. It is assumed that central banks, following the Taylor rule, will be able to provide price stability by monetary policy certainty increase. Monetary policy based on the use of Taylor’s rule is limited to a positive value of the nominal interest rate (in a milder form, to a positive value of the real interest rate). Manipulation of interest rates is used by central banks when targeting inflation, which has become the predominant inflation control regime in the modern world (EVTEEV, 2019). The central bank should consider the actions of other central banks (mainly the US Federal Reserve and the European Central Bank) that change interest rates in addition to the determinants included in the Taylor equation, as well as other factors (for example, the possible reaction of society).

The most important problem of the Taylor rule use is the impossibility of the potential volume of GDP unambiguous determination, which, in fact, is an unobservable parameter, complicating the conduct of monetary policy. Thus, the Central Bank of the Russian Federation can proceed from the absence of the actual GDP deviation from its potential value, while there is an incomplete use of production means and land in the economy (overgrown fields that were previously used in agricultural production), and unemployment is latent.

Taylor’s rule could be supplemented by the money supply parameter. Indeed, the money supply change in the short run can have the same effect as the interest rate change on the deviation of actual GDP from potential GDP and on the deviation of the actual inflation rate.
from its expected value. So, if there is a deviation between actual and potential GDP, then the interest rate should be decreased, and the money supply should be increased. If the actual inflation rate exceeds the expected value, the interest rate should be reduced, and the money supply should be increased. Thus, the direction of change in the money supply turns out to be opposite in comparison with the direction of change in the interest rate. This also means that there is a negative curve, each of the points on which shows a mutual combination of the interest rate change and the changes in the money supply value, which are neutral on GDP and inflation rates. This allows us to write Taylor’s rule in a modified form:

\[ r = \pi + r^* + a_1(\pi - \pi^*) + a_2((Y - Y^*)/ Y^*) - a_3((M - M^*)/ M^*), \]

where \( r \) and \( r^* \) are long-term real interest rates set for monetary policy purposes, \( \pi \) and \( \pi^* \) are actual and expected (targeted) inflation rates, \( Y \) and \( Y^* \) are actual and potential GDP, \( M \) and \( M^* \) are actual and the calculated value of the money supply, \( a_1, a_2 \) and \( a_3 \) are empirical calculated or calculation coefficients. Estimated money supply (\( M^* \)) - the forecast parameters of money supply based on the expected economic growth, inflation rates and the changes in money circulation rate.

There should be no absoluteness of the Taylor rule in monetary policy. Although it has some theoretical value, it does not consider the whole variety of macro- and macroeconomic processes occurring in society, institutional and behavioral characteristics. One of the significant drawbacks of this rule is the presence of such an unobservable parameter in it as potential GDP. Economists may have different ideas about its value, depending on the chosen calculation criteria.

In monetary policy, the Central Bank of the Russian Federation is guided by theoretical principles that have not received the evidence of their validity and are essentially a doctrine. Their use by other central banks does not testify to their validity and is due to the effect of imitation and “herding” in monetary authority activities. Following the main rule, some central banks can deviate from it if it slows down the economy growth, but without declaring it. Other central banks follow this rule “blindly”, believing in it as a kind of overvalued reference point for their monetary policy, detrimental to the interests of economic development. In Russia, based on the press releases of the central bank, a certain absolutization of the Taylor rule takes place, and all the conclusions of the monetary authorities are reduced to the provisions of this doctrine as an unconditional fact.

Central banks must have an effective transmission mechanism from the discount rate to the deposit and lending rates of commercial banks. Its main channel is the created system for depositing the funds of commercial banks in the central bank and their provision with loans (refinancing). In this case, the discount rate will affect the interest rates on deposits placed with commercial banks and on the loans issued by them to businesses and households. The discount rate also affects the cost of loans in the interbank market, so those commercial banks that will not conduct operations for loan depositing and receiving from the central bank will also face the discount rate change.

INTEREST RATES IN COUNTERCYCLICAL REGULATION OF ECONOMY

The interest rate is traditionally one of the most important instruments of countercyclical economic policy (ANDRYUSHIN et al., 2019; SUKHAREV, 2010). By manipulating the interest rate, central banks try to exert influence on economic growth stimulation or inflation reduction. When conducting monetary policy, central banks proceed from the assumption that the key (discount) rate can be expansionary, restrictive or neutral. The expansionary nature implies its impact on aggregate demand increase, and, through this, on output increase. To this end, the central bank sets a low interest rate. The restrictive nature is aimed at inflation combat and this corresponds to a high interest rate. The neutral nature of the interest rate means that its value does not have any significant effect on real GDP and inflation rate change. The interest rate here takes on a value in the range between the interest rate corresponding to the expansionary policy and the interest rate corresponding to the restriction policy.

In its monetary policy, the Central Bank of the Russian Federation proceeds from the assumption that a neutral interest rate is set when the actual inflation is close to the target value,
and the economy grows at the rates close to potential ones. The Central Bank of the Russian Federation proceeds from the assessment that the real neutral interest rate in the Russian economy should be 2-3% per annum in the long term (The main directions of the unified state monetary policy for 2020 and the period 2021 and 2022).

The aim of the discount rate manipulation can be the impact on the national currency exchange rate (SHELUDKO, 2015). Note that in the modern world, where central banks target inflation, this happens extremely rarely. It is assumed that the central bank should target inflation by changing the discount rate and not be responsible for the national currency exchange rate. The regulation of the national currency exchange rate should be left to the market. The market is able to stabilize the national currency exchange rate more effectively than the regulator. The previously existing policy of controlled floating in Russia did not allow the Central Bank of the Russian Federation to reach the low inflation level that was achieved after the abandonment of such a policy. Previously, it was assumed that the central bank, stabilizing the national currency rate, would also stabilize the price level, since the main factor of inflation increase was considered in the jumps of the national currency rate drop (this was especially evident during the ruble devaluation in August 1998).

Central banks can use the interest rate policy to attract foreign capital to the country. Historically, this policy was widely used during the gold standard period. In Russia, such a policy was also used before the devaluation of 1998. Thus, it led to the establishment of the refinancing rate (discount rate) equal to 150% per annum, with the inflation of 11% per annum. The effectiveness of interest rate policy use aimed at influencing the exchange rate can be justified only if the central bank implements it in a reasonable and very limited way.

When manipulating discount rates, central banks should consider their impact on the financial market, and above all, on the stock market. In other words, interest rate policy should not become the factor of financial and macroeconomic destabilization in general. The discount rate reduction leads to share price increase, which is perceived positively by the market. A significant increase in fictitious wealth can reduce the propensity to save on the part of households and decrease the amount of loan capital and investments in the future. The discount rate increase can lead to the stock market fall and to financial, economic and social crises. An example of this can be the policy of the US Federal Reserve, initially aimed at economic growth stimulation by lowering the key rate, which led to mortgage lending increase. Then the discount rate began to rise, which provoked the mortgage crisis, which quickly escalated into a general financial crisis not only in the United States, but in the whole world.

Thus, we see that the interest rate changes may be more negative than positive. The positive nature can be in the case of minor and predictable changes of the interest rate in the framework of inflation targeting. It is also necessary to consider the fact that the lower the inflation, the lower the limit of the discount rate change can be.

**SUMMARY**

Summarizing the above, the following main conclusions can be drawn:

First, there is no unambiguous understanding about the interest rate phenomenon nature (real or monetary) among scientists, which significantly complicates the development of an effective interest rate policy.

Second, when manipulating the discount rate, central banks should take into account the variety of macroeconomic parameters, as well as its impact on the stock and other markets. Failure to take this into account can provoke a financial and general economic crisis.

Third, the formation of discount rates by central banks is carried out on the basis of the inflation targeting regime use, which is mainly based on the Taylor rule. Despite its theoretical value, its application faces the difficulty of an unobservable parameter evaluation - potential GDP. Taylor’s rule can be supplemented with a money supply parameter. In this case, it will tie together the main monetary parameters that are used in the conduct of monetary policy. A modified rule can be developed in theory, where the national currency rate can be included as a parameter.
Fourth, the phenomenon of negative interest rates is possible due to the perception of the central bank by economic entities as a highly reliable institution capable of money return (even in a smaller nominal amount) in terms of general mistrust or asset value fall.

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Central bank interest policy: conceptual concepts and socio-economic context

Política de juros do Banco Central: conceitos conceituais e contexto socioeconômico

Política de intereses de los bancos centrales: conceptos conceptuales y contexto socioeconómico

Resumo
O artigo revela os objetivos e mecanismos da política de taxas de juros do banco central. O papel da taxa de desconto na garantia da estabilidade financeira e macroeconômica é mostrado. A regra de Taylor é apresentada e justificada de uma forma modificada, incluindo o parâmetro de oferta de moeda nela. O fenômeno das taxas de juros negativas é revelado.

Abstract
The article reveals the goals and mechanisms of the interest rate policy of the central bank. The role of the discount rate in ensuring financial and macroeconomic stability is shown. The Taylor rule is presented and justified in a modified form, by including the money supply parameter in it. The phenomenon of negative interest rates is revealed.

Keywords: Interest rate. Interest rate policy. Inflation. Targeting. Monetary policy.

Palavras-chave: Taxa de juros. Política de taxas de juros. Inflação. Metas. Política monetária.

Resumen
El artículo revela los objetivos y mecanismos de la política de tasas de interés del banco central. Se muestra el papel de la tasa de descuento para garantizar la estabilidad financiera y macroeconómica. La regla de Taylor se presenta y justifica en una forma modificada, al incluir en ella el parámetro de oferta monetaria. Se revela el fenómeno de las tasas de interés negativas.

Palabras-clave: Tasa de interés. Política de tasas de interés. Inflación. Metas. Política monetaria.