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Monetary policy in the agricultural sector of the Republic of Kazakhstan: Problems and solutions

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ABSTRACT

The purpose of this article is to develop a new monetary policy framework for the agro-industrial complex (AIC) of the Republic of Kazakhstan, designed as a key macroeconomic instrument for achieving sustainable and innovation-driven development of the sector. The study proceeds from the premise that the new monetary policy must be organically integrated into the overall socio-economic development system of the republic. Accordingly, the article outlines the theoretical foundations of economic growth, including the main factors, approaches, and methods of economic development; the experience of developed countries in fostering innovation through digital technologies; and the role of the state in transforming the economy toward an innovation-based model. It further examines the theoretical principles underlying monetary policy formation, as well as the mechanisms for enhancing the effectiveness of the banking system in meeting economic and public needs. The discussion also addresses the classical principles governing the functioning of the monetary system, the problem of inflation and its mitigation strategies, and a synthesis of the United States and European Union experience in monetary policymaking. A critical assessment of the National Bank of Kazakhstan's monetary policy is presented, focusing on refinancing and lending rates, banking margins, loan structures by maturity, currency denomination, lending terms, and borrower categories over the past 14 years. In addition, the article provides a detailed evaluation of credit allocation across individual sectors, identifying deficiencies, regulatory violations, and their consequences. Finally, proposals for the development of a new monetary policy framework are substantiated, followed by the main conclusions of the study.

Keywords: Economic Growth, Finance, Money, Credit, Refinancing Rates, Interest, Inflation, Innovation, Investment, Regulation.
Article type: Perspective.

INTRODUCTION

In economic science, it is an established axiom that monetary policy serves as one of the key macroeconomic instruments for achieving economic growth and must be organically integrated into the socio-economic development system of all sectors of the national economy. Accordingly, the assessment of the current state of monetary policy, the identification of the causes of its low efficiency in promoting economic development, and the justification of measures to enhance its role as a tool for stabilization and innovation-driven growth should be consistent with the classical functions of money. An analysis of the monetary and credit sphere over a long period has revealed significant systemic problems in its functioning. This is evidenced by insufficient economic growth

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rates, the underutilization of resource potential, the use of outdated equipment and technologies, the absence of conditions for technological renewal, the low level of development in the manufacturing sector, the persistent upward trend in inflation, and the high dependence on imports of food products and equipment for the AIC. Commercial banks have pursued an aggressive credit policy without regard to their actual capital base, often engaging in unethical interactions with clients and consciously assuming excessive credit risk. The National Bank of the RK, being the sole issuing institution and the primary monetary authority responsible for regulating the money supply, has adopted a passive stance. Its emission activity was effectively supplanted by commercial banks, which arbitrarily interpreted the concept of "freedom" in monetary operations. The National Bank regulates only the issuance of central money, while the creation of private money by credit and financial institutions has, in practice, occurred without adequate oversight. In certain years, the National Bank extended preferential loans to commercial banks; however, extensive credit expansion during this period created favorable conditions for inflation, weakened the national currency, and ultimately exacerbated the financial crisis. Therefore, there is an urgent need to investigate the causes of the low effectiveness of monetary policy and to develop scientifically grounded measures to strengthen its role as a vital macroeconomic instrument for innovation-driven economic development in general, and for the agro-industrial complex in particular.

Literature review

Theoretical foundations of economic growth

A review of the relevant literature confirms that achieving economic growth within the framework of sustainable development has been and remains one of the most important objectives of any country's economic policy. Economic growth expands a state's capacity to implement new programs aimed at addressing poverty and environmental pollution without reducing the existing level of consumption. The economic growth of any country is determined by the economy's physical capacity for expansion. This includes the quantity and quality of natural and labor resources, the volume of fixed capital, and the level of technological advancement. The availability and accessibility of these factors create the physical potential for increased production. To expand the productive capacity of the national economy, it is necessary to ensure the full utilization of the growing volume of resources. At the same time, distributive factors also influence economic growth by enabling the maximization of useful output. Another key driver of economic growth is the widespread adoption of new technologies, management practices, and production organization methods. In practice, scientific and technological progress is closely interrelated with investment: innovation often entails investment in new machinery and equipment. A significant share of the increase in real national income is generated by investments. These are well-established principles of economic science (Simsone 2014; Dallago & Casagrande 2023). In substantiating the economic policy of innovation-driven development of the AIC, the experience of developed countries is of particular interest. Evidence shows that modern agri-food systems in these countries have entered a fundamentally new stage of innovation-based development, grounded in digital technologies, robotics, and biotechnology. These advancements have ensured high agricultural productivity, environmental conservation, and ecological safety in the production of agricultural products and food (Veselovsky *et al.* 2017). Therefore, a key strategic task for Kazakhstan is to guide the AIC toward sustainable development based on a new technological foundation, drawing on the experience of developed countries in the context of expanding international economic cooperation. Achieving this objective should be pursued within the framework of universally recognized priorities for economic development and the overcoming of "grand challenges" that many countries currently face. Among these grand challenges, four are particularly significant: the anthropogenic impact on the natural environment, demographic factors, social inequality, and the declining efficiency and manageability of key infrastructures (Denisov 2023). At the same time, several challenges posing significant threats to the AIC have been identified. These include the rapid growth of both global food demand and population concentration in large urban centers; the increasing volume of global agricultural production and international food trade; the intensifying manifestation of international trade barriers through restrictions imposed within national food security systems; and the deliberate suppression of agro-industrial sector development in developing countries, including Kazakhstan. This threat is further aggravated by a number of negative domestic factors, such as the low profitability of the vast majority of agricultural enterprises, the investment unattractiveness of the agricultural sector, the underdevelopment of its infrastructure, and the predominance of low-value added products in the structure of agricultural exports (Wegren 2012). When pursuing innovation-driven development of the national AIC, it is necessary to take into account its specific characteristics, particularly those of the agricultural sector. These

include the need to restore its production potential, to bring unused agricultural lands back into cultivation, and to strengthen the sector's capacity through the rational spatial allocation of production across zones and regions, considering their natural and economic specificities. An analysis of investment activity in the sectors of Kazakhstan's AIC has revealed that the issue of investment has become increasingly acute. Whereas prior to the economic reforms the sectors of the AIC actively expanded their material and technical base – receiving up to 32% of total national capital investment in the late 1980s – the situation changed drastically after the agrarian reforms. The share of agriculture, forestry, and fisheries in total fixed capital investment declined significantly: it amounted to 2.3% in 2013 and continued to decrease, reaching only 1.2% by 2024. Within the key objective of the country's industrial policy – namely, the development of high-tech and export-oriented industries – it has been determined that the machinery manufacturing sector possesses the necessary potential and resources to achieve this goal (Madiyev *et al.* 2018). Therefore, the development of agricultural machinery production should become one of the priority sub-sectors of the national engineering complex. The current concepts and production strategies in agricultural machinery manufacturing must be refined and aligned with the forthcoming transformations in the agricultural sector of the economy to ensure synchronization and coherence.

The state plays a decisive role in implementing innovation and investment policy. In regulating innovation and investment activities, the government must assume several essential functions, including:

regulating the volume of investment in the development of agriculture;

stimulating investment in specific priority sectors of the economy through the use of pricing, credit, and other regulatory instruments (Ushachev & Kolesnikov 2022).

At the initial stage, it is necessary to establish a macroeconomic environment conducive to entrepreneurship in the AIC. This environment should create the prerequisites for overcoming the aforementioned structural problems in the AIC and provide incentives for the development of market actors on an innovation-driven basis. An important factor determining production growth and employment in modern economies is the level of aggregate expenditure, whose main component is private sector spending. Investment represents the second key component of aggregate demand. Two principal factors determine its level: the expected rate of net profit that entrepreneurs anticipate receiving from their investment expenditures, and the interest rate on credit resources (Carney 2019). The primary motivating factor behind investment expenditures is profit. An investor will show interest only if the expected rate of net profit exceeds the interest rate. When interest rates are high, only those investment projects that provide a higher expected rate of return will be implemented. Conversely, as interest rates decline, projects with lower profit margins become commercially viable, leading to an overall increase in the level of investment. Investment activity is also influenced by other factors, including acquisition, operation, and maintenance costs, taxation, technological change, the availability of fixed capital, and investor expectations (Goodwin et al. 2019; Bäuerle 2021). An increase in investment spending results in higher output and income growth at an accelerated pace – this outcome is known as the multiplier effect. The export of goods and services expands production, creates additional employment opportunities, and generates income growth. Therefore, exports should be included in aggregate expenditures. Conversely, the import of goods and services diverts part of the spending intended for domestic consumption and investment abroad, requiring that aggregate expenditures be reduced by the value of imports. It should be noted that an increase in government expenditures in this context is not financed through higher tax revenues and must therefore be accompanied by a budget deficit. The fundamental recommendations of M. Keynes included the use of deficit financing to overcome recession or depression. The stimulating effect of a government budget deficit on the economy depends on the methods used for its financing. There are two principal approaches: borrowing from the population and the issuance of new money. Borrowing through public loans tends to raise interest rates, which can "crowd out" certain private investment expenditures. In contrast, the issuance of new money allows the government to avoid this crowding-out effect.

Theoretical foundations of monetary policy

Classical economic literature emphasizes that the centralization and regulation of banking have deep historical roots. The evolution of banking practice has demonstrated that centralization and public oversight are essential prerequisites for ensuring the efficiency of the banking system in meeting the needs of the economy and serving the public interest. The fundamental objective of monetary policy should be to create conditions conducive to economic development by achieving a level of production characterized by full employment and price stability. When the economy experiences high unemployment and underutilization of productive capacity, a cheap money policy should be pursued. An increase in the money supply lowers the interest rate, stimulating investment and

raising the equilibrium gross national product (GNP). The magnitude of this increase depends on the extent of investment growth and the size of the income multiplier (Anokhina *et al.* 2019). The effectiveness of monetary policy can be analyzed using the aggregate demand – aggregate supply (AD-AS) model. When the economy is in a recessionary phase, represented by the horizontal Keynesian segment of the aggregate supply curve, an expansionary monetary policy shifts the aggregate demand curve to the right, significantly increasing real output and employment while having little or no effect on the price level. However, once full employment is achieved, further increases in aggregate demand have a minimal – or no-impact on output and employment but lead to a substantial rise in the price level. This demonstrates that once full employment is reached, a cheap money policy becomes inappropriate. It is a classical principle that a properly functioning monetary system injects vitality into the circular flow of income and expenditure that underpins the entire economy. An efficient monetary system promotes both full utilization of production capacity and full employment. Conversely, a poorly functioning monetary system may become the principal cause of sharp fluctuations in output, employment, and prices, and may distort the allocation of resources (Goodwin *et al.* 2019). The essence of the Keynesian theory of employment lies in the fact that the levels of production, employment, income, and prices are directly dependent on aggregate expenditures, which include consumer expenditures, investment expenditures, net export expenditures, and government purchases. The decision of business entities to produce goods and, consequently, to use resources depends on the total amount of money spent on these goods. Fiscal policy uses changes in government expenditures and tax revenues to eliminate imbalances caused either by inflation or by recession. From the above it follows that the main instruments for solving economic problems are monetary and fiscal policy, government expenditures, and the insurance system. Inflation is the most important macroeconomic indicator of the socio-economic development of a country. It is formed under the influence of various factors. Inflation and its high rates create serious difficulties: they slow down the growth of GDP, reduce the living standards of the population, narrow business investment opportunities, undermine the competitiveness of market participants, and increase property differentiation in society (Wray 2004; Bindseil 2014). The scientific community discusses the nature of inflation and, accordingly, the methods of combating it. Two directions of discussion have been formed. The first considers inflation to have a purely monetary nature and therefore should be countered by monetary methods. The second considers inflation as the result of a multifactorial socio-economic process of a reproductive nature; therefore, it should be countered by reproductive methods (Johnson 2018; Fedorova *et al.* 2020). The new monetary policy should take into account the peculiarities of the functioning of the agri-food system, which is characterized by seasonality of production, its dependence on climatic conditions, insufficient state support, and the need for large-scale modernization, in which financial and credit institutions play a major role (Viktorovna & Nickolaevna 2019; Dobrodomova *et al.* 2020). The instruments of monetary policy that influence the size and structure of the money supply include interest rate policy, reserve requirements, open market operations, the refinancing rate of the National Bank, currency intervention, the exchange rate, and the establishment of monetary targets. In choosing the monetary policy of a country that ensures a sufficiently high level of effectiveness in the development of the real sector of the economy, the experience of developed countries in this area is of particular interest.

Monetary policy of the United States

The United States is the most developed and wealthiest country in the world, and its experience in the field of monetary policy is of considerable interest. According to researchers, the Federal Reserve System (FRS) of the United States has, since its establishment in 1913, successfully pursued a policy of reducing interest rates as a key instrument for regulating economic development, particularly during periods of economic downturns and deflationary pressures. This policy was also implemented in response to the global financial crisis of 2008. During that period, there was a significant reduction in interest rates, along with large-scale purchases of government bonds and mortgage-backed securities aimed at stimulating economic growth and creating a protective barrier against a deflationary crisis. On one hand, this policy stimulated the inflow of investment into the real sector of the economy – particularly into production expansion, scientific development, and large-scale innovation implementation – while on the other hand, it increased consumer demand. The growth of investment and consumer activity served as the driving forces of economic development. At the same time, the reduction in interest rates significantly improved conditions in the financial market, increased asset liquidity, and facilitated the free movement of capital. As a result, the efficiency of financial institutions was maintained, and the stability of the financial system against internal and external challenges was strengthened (Wang 2024). The effectiveness of the

FRS monetary policy was confirmed during the COVID-19 pandemic, which caused serious harm to economic development. From July 2019 to March 2020, the FRS reduced interest rates from 2.5% to a range of 0-0.25%, and the US GDP showed positive growth dynamics – from 2.1% in the fourth quarter of 2019 to 3.5% in the third quarter of 2020. During this period, the annual growth rate of the consumer price index remained stable within the range of 1.5% to 2.5%, which indicates that domestic supply and demand were balanced, industrial production capacities met consumer needs, and global commodity prices remained stable. At the same time, research correctly noted that one of the key factors determining the level of inflation is the relationship between supply and demand in the market, the economy's ability to flexibly adapt to changes in demand, inflationary expectations, and changes in international commodity prices (Wheelan 2016). Studies have shown that the effect of lowering interest rates on inflation may be ambiguous. Under conditions of low supply elasticity and strong demand, it can contribute to an increase in inflation. The monetary policy pursued led to a decline in the unemployment rate in the US from 3.7% in 2019 to 3.5% in 2020, which clearly demonstrates the positive impact of lowering interest rates on the labor market. Many factors influence it: structural transformation determined by economic development, changes in the composition and characteristics of employment, technological progress that creates new jobs, production expansion, and the opening of new industries that increase the demand for labor. The positive impact of the FRS interest rate reductions on financial markets is also evident: stock market indices rose, investors directed capital into stock and debt markets, increasing their liquidity and trading activity, while default risks decreased and market stability improved (Chen *et al.* 2024).

Monetary policy in the EU countries

The period that has passed since the onset of the global financial crisis of 2008 has enabled researchers to evaluate the effectiveness of government programs implemented in EU countries to overcome the crisis and achieve economic development. A review of the literature devoted to studying the results of the anti-crisis monetary policies of Western European countries – aimed at protecting key economic entities from bankruptcy, stimulating aggregate demand, increasing investment and production, and restoring liquidity in the credit market – confirms the high effectiveness of the measures taken by the governments of these countries (Prokopowicz 2020). We share the viewpoint of most researchers that government intervention, based on the Keynesian model of employment of the 1930s, made it possible to prevent potentially more severe consequences of the global economic downturn both worldwide and within individual countries. The essence of the economic policy of these countries lay in the use of a monetary policy characterized by low interest rates and the implementation of government economic development programs through the injection of large sums of public funds. The government support measures included restoring the liquidity of the financial system by purchasing illiquid assets from commercial banks. The research identifies several causes of the global financial crisis. One of them was the dissemination through the media of misleading ideas about financial market regulation, accompanied by the promotion of a philosophy of deregulation, which benefited commercial banks. Such ideas exempted banks from the responsibility of improving credit risk management processes and created favorable conditions for speculation in financial markets. Another reason was the monetary policy itself, which was based on the principle of the free market and non-intervention, while maintaining low interest rates. This led to the formation of a speculative bubble of unprecedented scale (Domańska-Szaruga 2014b). According to researchers, it became evident that the strategy based on considering low interest rates a universal tool proved to be erroneous. As a preventive measure against financial crises, it was proposed to improve credit risk management in commercial banks – including deposit, credit, mortgage, and investment institutions. It was also recognized that banks themselves could not effectively manage this process in the context of deregulated financial markets; therefore, it was proposed to strengthen banking supervision institutions both at the national and supranational levels. Positive trends in economic recovery and in capital markets began to emerge after the adoption of the anti-crisis model of government intervention tested in the United States, which was based on rescuing banks and other economic entities within the framework of the FRS active monetary policy. The European Central Bank (ECB) and the International Monetary Fund (IMF), following the recommendations of the European Commission, established new financial stability funds financed by the eurozone. At the same time, central financial institutions of the EU began coordinating measures to improve the evaluation of commercial banks, as well as control and hedging instruments for specific categories of banking risks (Kredina *et al.* 2021). The ECB obtained new powers and the ability to impose sanctions on commercial banks that failed to comply with new recommendations aimed at enhancing security levels and reducing systemic

risk (Calomiris 1997). The process of globalizing interventionist programs should encompass both national and supranational banking supervision institutions.

MATERIALS AND METHODS

The methodological basis of this study is grounded in the generally accepted principles of economic science, as well as in the principles of a systemic approach, which involve considering the interrelation and interdependence of various elements within a unified economic system. In examining the theoretical foundations and conducting a critical analysis of existing scientific theories and concepts of monetary regulation, as well as the evolution of monetary policy and its instruments, the methods of induction and deduction, analysis, and synthesis were employed. To process macroeconomic indicators reflecting various aspects of the functioning of the banking system, statistical and economic methods were used, including the comparative method, time series analysis, and the index method. The informational base of the research consists of the scientific works of domestic and foreign scholars in the field of monetary regulation theory, the transformation of central bank objectives and functions, inflation targeting mechanisms, and monetary policy as a whole. In addition, the study made extensive use of statistical data from the National Bank of the Republic of Kazakhstan, which characterize the activities of commercial banks and the state of lending to the real sector of the economy across individual industries.

RESULTS

The economic situation in the Republic of Kazakhstan necessitates an in-depth fundamental analysis of the current monetary policy, its consequences, and the justification of effective mechanisms for overcoming the crisis and mitigating its aftereffects. At present, one of the most pressing issues for the country's banking system is the urgent need for a fundamental revision of credit policy. Research results confirm that the commercialization of the banking system has never represented progress in the evolution of credit. From a commercial perspective, it is far more profitable to engage in speculation with financial resources than to invest in the real sector of the economy. As a result, the current state of the credit system is characterized by banks largely serving their own interests, leading to a detrimental effect of self-financing in the non-productive sector, which hinders overall economic development. The ability of commercial banks to create money independently, without the direct participation of the National Bank, has become a key factor influencing the money supply and, consequently, inflation.

A persistent trend of declining purchasing power of the national currency – the tenge – has been observed. Between 2011 and 2025, the exchange rate of the tenge against the US dollar rose from 146.62 to 524.67, reflecting a depreciation of approximately 3.6 times. Another crucial task lies in fundamentally reforming the refinancing mechanisms and the process of money supply formation to align them with international best practices. It is necessary to ensure that such an essential monetary instrument as the refinancing rate functions effectively in practice. The experience of foreign central banks in refinancing credit institutions should serve as the foundation for these reforms. To illustrate this point, Table 1 below presents average lending and refinancing rates, as well as bank margins, in several developed countries for the period 2018-2021.

Table 1. Average lending rates in foreign countries for 2018-2021 (%).

Country	Lending rate	Refinancing rate	Bank margin
United Kingdom	3.6	3.4	2.1
Canada	4.1	2.6	3.2
Norway	4.2	3.5	2.4
USA	3.2	2.3	2.8
Switzerland	3.1	2.3	2.4
Japan	1.8	0.1	1.7
EU countries	4.1	2.0	2.1

It should be noted that the lowest interest rates are characteristic of the most developed countries – Japan, the United States, the United Kingdom, and the European Union. Japan stands out among them, with the refinancing rate being the lowest at 0.1%. In EU countries, it averaged around 2%, and in the United States – 2.3%. A similar pattern can be observed in banking margins: in Japan, it was 1.7%, while in EU countries and the United Kingdom,

it stood at 2.1%. It is also important to emphasize that during periods of economic recession, these countries tend to reduce their refinancing rates to 0%, thereby stimulating economic activity and supporting domestic demand. In contrast, the economic situation in Kazakhstan is characterized by the dominance of a single extractive industry and a relatively low level of development in other sectors of the economy. Despite this structural imbalance, the country consistently applies high interest rates – both for refinancing and for loans issued to borrowers – hindering investment activity and the growth of the real sector. The analysis of interest rates in the Republic of Kazakhstan for the period 2011-2025 has shown that during these years, the lending rates of commercial banks increased on average from 15.6% to 20%, fluctuating between 13.9% and 23.5% in certain years. At the same time, the refinancing rate of the National Bank rose from 5.5% in 2012 to 15.75% by 2025, following a consistent upward trend since 2017, when it was raised to 10.25%, and reaching 16.75% in 2022. The banking margin grew from 8.2% in 2011 to 18% in 2016, after which it declined from 6.05% in 2017 to 4.25% by 2025 (Table 2). The analysis of lending activity by second-tier banks over the period 2011-2024 revealed that the total volume of issued loans increased from 7572.9 billion tenge to 33488.4 billion tenge – more than 4.4 times (Tables 2 and 3). Issued loans differ by currency type, loan term, and borrower status. The total volume of loans in the national currency increased sevenfold over this period, while loans in foreign currencies declined by 13%. By loan term, short-term loans grew by 4.1 times, and long-term loans by 4.49 times. It is particularly noteworthy that lending by borrower category showed significant disparities. The total volume of loans to legal entities increased only modestly – by 1.9 times – while lending to individuals rose nearly elevenfold. Loans issued to businesses for entrepreneurial purposes increased 2.2 times, whereas loans to the population for non-business purposes grew by 11.7 times.

Table 2. Lending rates in the Republic of Kazakhstan for 2011-2025 (%).

Years	Lending rate	Refinancing rate	Bank margin
2011	15.6	7.5	8.1
2012	14.0	5.5	8.5
2013	13.9	5.5	8.4
2014	13.9	5.5	8.4
2015	18.4	5.5	12.9
2016	23.5	5.5	18.0
2017	16.3	10.25	6.05
2018	16.2	9.25	6.95
2019	15.3	9.25	6.05
2020	15.6	9.0	6.6
2021	15.4	9.75	5.65
2022	15.3	16.75	-1.45
2023	19.1	15.75	3.35
2024	19.9	15.75	4.15
2025	20.0	15.75	4.25

Note – compiled from source (Simsone 2024).

In assessing the efficiency of the existing lending system, several structural changes can be highlighted. A steady trend toward an increasing share of loans in the national currency has been observed – from 58% in 2011 to 92% by 2025. Correspondingly, the share of loans in foreign currency declined both in absolute terms – from 3185 billion tenge in 2011 to 2776 billion tenge in 2025 – and in relative terms, from 42% to 8%. This trend can be regarded positively, as can the higher proportion and faster growth rates of long-term loans compared to short-term ones. Over the analyzed period, although the total volume of short-term loans increased from 1228.7 billion tenge in 2011 to 5032.5 billion tenge in 2025, their share in the total lending structure fell from 16% to 15%. In contrast, the volume of long-term loans rose from 6344.2 billion tenge to 28455.9 billion tenge, with their share increasing from 84% to 85%. However, certain deficiencies in the lending system are clearly evident when analyzing the structure of loans by borrower status and type. By status, borrowers are divided into legal entities and individuals. The total amount of loans issued to legal entities grew from 5459 billion tenge in 2011 to 10386 billion tenge in 2024 – an increase of only 1.9 times – while loans to individuals expanded from 2114 billion tenge to 23102 billion tenge, nearly an elevenfold rise. Similarly, the share of legal entities in total lending declined from 72% to 31%, while the share of individuals increased from 28% in 2011 to 69% in 2024. Violations of balance within the financial market are even more evident in the structure of lending by type of borrower. The share of business loans dropped from 76% in 2011 to 38% by 2025, whereas the share of loans to the non-entrepreneurial population rose from 24% to 62%, with the loan volume increasing from 1780 billion tenge in

2011 to 20798 billion tenge in 2025 – an 11.7-fold growth. In addressing the issue of transforming the agricultural sector toward an innovative development model, the focus should be on its financial support mechanisms, including the formation of adequate productive resource potential, ensuring the continuity of the reproduction process, and enhancing investment efficiency. In this context, bank lending to agriculture plays a crucial role. The specific characteristics of this sector have led to the formation of credit systems that vary across countries and differ significantly from those applied to other sectors of the economy. In developed countries, the system of agricultural lending is based on a combination of market and preferential credit mechanisms aimed at improving the efficiency of agricultural production and stimulating innovative activities. This approach takes into account the uneven nature of the reproduction process and the significant time gap between the investment of funds in production activities and the receipt of income from the sale of agricultural products, which results in a shortage of financial resources that must be replenished through borrowed funds.It is therefore evident that there is a need to establish a national agricultural credit system that meets the needs of agricultural producers for both working capital and investment loans. Accordingly, an analysis was conducted on the performance of the banking system in the field of lending between 2011 and 2023. In particular, bank loans across various sectors of the economy were examined. The total volume of loans issued in the country increased from 7644036 million tenge in 2011 to 24065363 million tenge in 2023 – an increase of 3.1 times. Loans issued to the industrial sector rose from 727967 million to 2663382 million tenge (a 3.3-fold increase); loans to the communications sector – from 48369 million to 77091 million tenge (1.6 times); loans to trade – from 1814545 million to 6701195 million tenge (3.7 times). In contrast, loans issued to the agricultural sector increased only slightly – from 281807 million to 288725 million tenge, representing 103.4% of the 2011 level. Meanwhile, loans issued to so-called “other sectors” increased from 3109403 million tenge in 2011 to 12838121 million tenge in 2023 (a 4.1-fold increase). This category of lending is not directly related to the real sector of the economy (Tables 3 and 4). In the overall trend of rising total loan amounts, a sharp surge occurred in 2023 due to a significant increase in loans issued to trade and other sectors. Within one year, the volume of loans to trade increased 3.9 times, while loans to other sectors rose from 9380.9 billion tenge in 2022 to 12838 billion tenge in 2023, or by 137%. The structure of loans issued by sectors of the economy (Table 4) is of significant analytical interest. It should be emphasized that the leading sectors of the real economy are industry, agriculture, construction, and transport, while the communications sector also plays an important role. The real growth of production in these industries largely determines the dynamics of economic development through the full utilization of resource potential and the implementation of innovative technologies. Despite this, the structure of issued loans shows a low share of these sectors. In 2011, the share of industry amounted to 10%, agriculture – 4%, construction – 19%, transport – 3%, and communications – 1%. Meanwhile, trade accounted for 24%, and other sectors for 41%. By 2023, this situation had not changed significantly. The share of industry increased slightly by 1.1%, while the share of agriculture decreased to 1.2%, construction – to 3%, and communications – to 0.3%. At the same time, the share of trade increased to 27.8%, and other sectors to 53.3%. In total, 81.1% of loans were directed to these two sectors, whereas the real economy accounted for less than 19% of all issued loans. An analysis of loans allocated by economic sectors revealed that although the volume of loans to industry steadily increased, its share in total credit did not exceed 15.4% (in 2019). Conversely, there was a persistent downward trend in the construction sector’s share, declining from 19% in 2011 to 3% in 2023, along with a reduction in the total amount of loans from 1433 billion tenge in 2011 to 730.6 billion tenge in 2023. At the same time, despite the low level of agricultural lending, during certain years (2015-2019), loans increased from 373.7 billion tenge to 684.2 billion tenge, raising the sector’s share from 3% to 5.4% in those years. However, in subsequent years, lending volumes declined again. The assessment of the current monetary and credit policy requires an analysis of both the types of loans and the objects of lending. The types of loans include short-term and long-term, while the objects of lending are legal entities and individuals, considered across various sectors of the economy. In 2011, across the country, 71% of loans were issued to legal entities, while 29% went to individuals. In the sectors of the real economy – namely industry, agriculture, construction, transport, and communications – the share of loans to legal entities was particularly high. In the communications sector, only legal entities utilized bank loans, while in industry and construction, their share amounted to 99%, and in transport – 98%. In agriculture, legal entities accounted for 95% of total bank loans, while individuals received only 5%, despite producing about half of the total agricultural output. In trade, 91% of loans were issued to legal entities, and less than 9% were received by individuals. In other sectors not related to the real economy, the situation was different: the share of loans to legal entities was about 35%, whereas individuals accounted for 65% of all loans.

Table 3. Loans to the economy from second-tier banks at the end of the period (million tenge).

Reporting period	Total	including							
		By currency type		By term		By borrower status		By borrower type	
		In national currency	In foreign currency	Short-term	Long-term	legal entities	Individuals (including loans to individual entrepreneurs)	Business (including loans to individual entrepreneurs for business purposes)	Population (for non-business purposes)
01.11	7 572 930	4 387 733	3 185 197	1 228 733	6 344 197	5 459 115	2 113 814	5 792 867	1 780 063
01.12	8 793 207	5 712 826	3 080 381	1 750 265	7 042 943	6 451 499	2 341 709	6 775 097	2 018 111
01.13	9 902 445	7 018 250	2 884 195	1 877 498	8 024 947	7 022 752	2 879 693	7 340 918	2 561 527
01.14	11 314 974	7 914 496	3 400 479	2 133 715	9 181 259	7 664 206	3 650 768	7 986 302	3 328 673
01.15	12 165 954	8 524 246	3 641 707	2 500 052	9 665 902	8 178 150	3 987 803	8 478 367	3 687 587
01.16	12 844 824	8 297 677	4 547 147	2 159 865	10 684 959	8 693 724	4 151 100	8 977 630	3 867 194
01.17	12 519 878	8 513 173	4 006 704	2 065 902	10 453 976	8 493 989	4 025 889	8 768 159	3 751 718
01.18	13 091 764	10 094 320	2 997 444	1 987 609	11 104 156	7 789 144	5 302 620	8 097 925	4 993 839
01.19	13 864 890	11 560 763	2 304 127	2 041 473	11 823 417	7 203 562	6 661 328	7 531 287	6 333 603
01.20	14 623 065	12 726 647	1 896 418	2 128 709	12 494 356	7 097 007	7 526 058	7 499 987	7 123 078

01.21	14 594 526	12 760 375	1 834 151	2 086 030	12 508 496	6 994 389	7 600 137	7 406 727	7 187 799
01.22	18 502 803	16 705 937	1 796 866	2 877 097	15 625 706	7 714 746	10 788 057	8 414 323	10 088 480
01.23	22 774 137	20 951 778	1 822 359	3 928 072	18 846 065	8 519 566	14 254 571	9 510 468	13 263 668
01.24	27 860 691	25 765 315	2 095 376	3 084 258	24 776 433	9 403 661	18 457 031	10 989 121	16 871 570
01.25	33 488 382	30 712 264	2 776 117	5 032 451	28 455 931	10 386 032	23 102 349	12 690 588	20 797 793

Note: compiled from source (Simsone 2024).

Table 4. Share of bank loans by economic sector as of January 1, 2023.

Sectors	**Total**	**including**								
		Non-bank legal entities					**Individuals**			
		Total	**Short-term**		**Long-term**		**Total**	**Short-term**		**Long-term**	
			In national currency	**In foreign currency**	**In national currency**	**In foreign currency**		**In national currency**	**In foreign currency**	**In national currency**	**In foreign currency**
Total (Republic)	100	48	36	5	7	1	52	10	0	41	0
Industry	100	98	66	11	16	6	2	0	0	2	0
Agriculture	100	82	46	0	36	0	18	3	0	15	0
Construction	100	96	70	9	17	0	4	1	0	3	0
Transport	100	91	47	2	37	5	9	1	0	8	0
Communications	100	0	22	0,02	38	28	12	4	0	8	0
Trade	100	92	78	9	5	0	8	3	0	5	0
Other sectors	100	9	4	1	3	1	91	17	0	73	0

Note: compiled from source (Simsone 2024).

An analysis of these indicators over time shows that in the real sectors of the economy – including industry, construction, agriculture, transport, and trade – there were no significant changes. However, at the national level, notable shifts occurred. The share of legal entities in total loans decreased from 71% in 2011 to 48% in 2023, which led to significant changes in the so-called "other sectors". In these sectors, the share of loans issued to legal entities declined from 35% to 9%, while the share of individuals increased from 65% to 91% during the same period. Banks issued both short-term and long-term loans, denominated in national and foreign currencies. The main recipients of bank loans in the real sector were legal entities, which actively utilized banking services to obtain credit for production and investment purposes. In 2011, the share of short-term loans in the industrial sector slightly exceeded 20%, while long-term loans accounted for more than 79%. Borrowers required credit resources in both national and foreign currencies. In the same year, half of all short-term loans were issued in the national currency, and the other half in foreign currency. Among legal entities in the industrial sector, long-term loans made up 79%, of which 40% were in the national currency and 39% in foreign currency. In agriculture, the ratio between short-term and long-term loans differed significantly from that in industry. Of the total loans in 2011, 40% were short-term and 54% were long-term. Among short-term loans, 20% were issued in the national currency and an equal share in foreign currency. For long-term loans, 14% were provided in the national currency and 40% in foreign currency. In construction, short-term loans accounted for 13%, while long-term made up 87%, including 44% in the national currency and 43% in foreign currency. In transport, the structure was similar to industry: short-term loans issued to legal entities represented 17% of the total, of which 6% were in the national currency and 11% in foreign currency. Long-term loans dominated, constituting 81%, including 29% in the national currency and 52% in foreign currency. In the communications sector, the share of short-term loans was minimal – around 9%, while 91% of loans were long-term, with 79% of them issued in foreign currency. This general structure remained relatively stable up to 2019. Starting from 2020, there was a gradual increase in the share of individuals within the total volume of loans. However, this growth did not significantly affect the role of individuals within the real sector. Nationwide, in 2020, the share of legal entities in total loans decreased to 59.5%, while the share of individuals increased to 40.5%, compared to 29% in 2011. By 2023, this ratio changed even more significantly: the share of legal entities declined to 48%, compared to 71% in 2011, whereas individuals became the leading borrowers, accounting for 52% of all loans. Despite the sharp reduction in the volume of loans issued in foreign currency by 2023, their total value remains considerable. This clearly demonstrates the import dependence of the national economy, which raises serious concerns. Therefore, there is an evident need for a fundamental transformation of economic policy, both in terms of socio-economic development and in the monetary-credit sphere, to strengthen the financial independence and resilience of the domestic economy.

DISCUSSION

A fundamental issue in the theory of money and credit is the choice between the distributive and reproductive concepts. The reproductive approach to analyzing money and credit is more productive, as it is based on the study of the underlying causes of disproportions and changes in social and economic relations. The efficiency of the reproduction process can only be ensured through the conscious activity of the management system, by understanding and skillfully applying the laws of reproduction in the practice of forecasting and planning socio-economic development. Monetary and credit policy, therefore, must serve two essential functions: on one hand, it should support the implementation of economic development programs, and on the other hand, it must be capable of responding to external and internal challenges, ensuring sustainable economic growth. An analysis of the experience of central banks in many developed economies shows that no single central bank is tasked with the enormous responsibility of maintaining money and price stability entirely on its own. In contrast, according to the Law "On the National Bank of the Republic of Kazakhstan" (Article 29), the National Bank is both the defining and implementing body of the state's monetary and credit policy, whose primary objective is to ensure the stability of the national currency. Meanwhile, the central banks of developed countries typically pursue broader goals such as achieving economic growth, interest rate stability, foreign exchange stability, and financial market stability. The objectives of the monetary and credit policy of the National Bank of the Republic of Kazakhstan should be aligned with the practices of developed economies and closely linked to the country's overall economic policy. The main directions of state monetary and credit policy should be developed jointly by the National Bank and the Government, and then approved by the Head of State for a period of at least five years. This time frame corresponds to the horizon of socio-economic development planning in Kazakhstan, allowing for annual updates to specific tasks and instruments of the state's monetary policy. The range of refinancing instruments should

enable banks to address their short-, medium-, and long-term challenges effectively. However, the core mechanism of refinancing commercial banks by the National Bank of Kazakhstan should be the provision of large-scale, long-term (3 to 5 years or more) targeted investment loans at relatively low interest rates. This would allow commercial banks, by adding only a minimal margin, to offer low-interest loans to enterprises and organizations for mass replacement of outdated equipment and for the implementation of specific projects aimed at acquiring new technological systems and modern production capacities. To change the current situation in the monetary and credit environment, it is necessary to establish a Research Institute or Analytical Center within the structure of the National Bank dedicated to studying the problems of monetary and credit policy. This institution should examine the factors contributing to threats to economic security, the causes of financial instability among market participants, the unfavorable investment climate, the persistence of inflationary processes, and other issues that generate financial destabilization in the economy (Masciandaro & Quintyn 2016). Globalization, the expansion and deepening of integration processes, and the increasing interconnection and interdependence of national economies have become an undeniable reality in the modern world. Under these conditions, the exchange rate acts as one of the main instruments through which foreign trade flows and the balance of payments are regulated. The choice and effectiveness of economic policy tools in an open economy depend directly on the exchange rate regime. The goal of exchange rate policy should be oriented toward achieving economic growth and improving the living standards of the population. It must outline the stages and measures aimed at strengthening the status of the sovereign national currency of the Republic of Kazakhstan, thereby ensuring the financial and currency security of the country. As a key priority of exchange rate policy, it is essential to ensure the transformation of the tenge into a sovereign, independent, and stable currency, fully performing all functions of money within the country and achieving the complete elimination of the US dollar from domestic pricing and monetary circulation. The existing exchange rate regime has created conditions under which the national economy effectively finances foreign countries, as savings are either kept abroad or remain within Kazakhstan in the form of cash dollars. A new system should therefore be developed – one that meets modern criteria, serves the needs of the real sector of the economy, is state-managed and controlled, and operates in national interests (Domańska-Szaruga 2014a). A comprehensive solution to the tasks of exchange rate policy is possible only through the active and integrated application of all its components, including foreign exchange regulation and foreign exchange control (to prevent capital flight abroad and attract foreign investment into the Kazakhstani economy); management of international reserves; exchange rate policy; international monetary cooperation; and participation in international monetary, credit, and financial organizations (Khalatur).

CONCLUSION

The results of this study allow us to draw the following conclusions:

Monetary policy is a key macroeconomic instrument of state regulation of the socio-economic development of any country. The fundamental principle of economic science remains relevant: monetary policy must be organically integrated into the country's sustainable development system and should create the necessary conditions for economic growth and the achievement of a level of production characterized by full employment and price stability (absence of inflation).

The analysis of monetary policy in developed countries has shown that regulation in the banking sector should aim to ensure the stability of both the financial system and the economy as a whole. The reduction of interest rates has had a significant impact on economic growth, inflation, employment, and financial markets. It has stimulated economic activity, improved labor market conditions, and reduced risks in the financial sector.

The anti-crisis model of state regulation developed in response to the global financial crisis of 2008 was based on Keynes' theory of employment (1930s), adapted to the realities of modern national economies, as well as on Milton Friedman's monetarism (1970s) and the principles of neoclassical economics.

In the modern context, new technologies, information, and innovation – as key drivers of economic development – require adjustments to monetary and fiscal policy, including the use of tools that promote the activation of economic agents and stabilization of financial markets. It is essential to closely monitor domestic and international economic conditions and adjust monetary policy in a timely manner when necessary.

The increasing role of the financial system in economic development has elevated the importance of strengthening risk management mechanisms and improving regulatory frameworks, which are now recognized as top priorities in maintaining the stability of the economic system. The role of banking supervision has expanded, and

mechanisms of regulation have been enhanced across organizational, technological, and product dimensions – both at the national and supranational levels. This serves as a guarantee of effective functioning of the financial system, including the banking sector, and underscores the need for continuous improvement of regulatory mechanisms and greater transparency in financial markets.

The monetary policy of central banks should prevent the emergence of excessive money supply – which leads to inflation and overheating of capital markets – while simultaneously promoting real economic growth. Its effectiveness depends on coordination with reforms in other sectors of the economy. An important direction of the overall strategy should be the improvement of legislation regulating credit relations, as well as the strengthening of trust-based motives in the activities of both lenders and borrowers.

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