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Impact of transactional activity of second-tier banks in Kazakhstan on the country's macroeconomic indicators and GDP

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Abstract. In an era of rapid macroeconomic change and recurring financial instability, understanding the factors that influence national economic resilience is vital. This study examines the transactional activity of second-tier banks in Kazakhstan and their role in shaping core macroeconomic indicators such as gross domestic product (GDP), poverty, and unemployment. The aim is to explore the connection between financial operations and socio-economic development under conditions of digital transformation in the banking sector. The study is significant for its contribution to economic resilience literature, and its practical relevance lies in informing policy and strategy for banking modernization. Using official data from 2013 to 2023, the research employs correlation and regression analysis to assess the relationship between banking transaction volumes and GDP trends. A strong positive correlation (r = 0.92) was identified, showing that transactional capacity contributes to GDP growth and enhanced financial inclusion. The research provides evidence that digital financial services improve access to banking, reduce poverty, and elevate living standards. The findings offer strategic insights for policymakers and lay the groundwork for further empirical studies in financial sector development.

Keywords: transactional activity, second-tier banks, GDP, macroeconomic indicators, financial inclusion, digital transformation, banking operations, economic resilience

Introduction

Amid the accelerated development of Kazakhstan's economy and structural shifts in the global financial landscape, the role of banking institutions in shaping macroeconomic dynamics is becoming increasingly significant. In particular, the transactional activity of second-tier banks is viewed as a critical economic indicator, reflecting their influence through lending and financial support to the real sector and social initiatives.

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Recent transformations, driven by the adoption of digital technologies, have reshaped Kazakhstan's banking system. Digitalization — including the spread of Internet banking, non-cash payment platforms, and the expansion of POS terminal networks — is fostering greater financial inclusion. According to official data, the volume of non-cash card transactions in Kazakhstan during January–September 2024 reached 117.1 trillion tenge, marking a 15% growth year-on-year and amounting to 87% of GDP. This reflects changes in consumer behavior and cash circulation patterns.

Despite this growing relevance, academic inquiry into the macroeconomic impact of transactional banking remains limited. Existing literature often explores isolated technological or operational aspects without assessing systemic relationships across key indicators such as GDP, poverty, inflation, employment, and social dynamics. The absence of a comprehensive analysis underscores the need for deeper research, especially using quantitative methods.

The object of the study is the transactional activity of Kazakhstan's second-tier banks. The subject is their influence on macroeconomic indicators, including GDP and social development metrics. The aim is to examine statistical correlations between banking operations and national economic performance, and to formulate recommendations for optimizing regulatory and institutional frameworks.

To achieve this, the study pursues four key objectives:

1. Review theoretical and empirical literature on banking transactions and macroeconomic trends.

2. Compile and assess official economic data from Kazakhstan between 2013 and 2023.

3. Apply correlation and regression analysis to identify significant linkages between transaction volume and GDP, employment, and other indicators.

4. Propose strategic measures to enhance banking efficiency and leverage digital technologies.

The methodology integrates theoretical modeling with empirical assessment. Analytical tools include statistical correlation techniques, trend evaluation of digital finance indicators, and analysis of policy documents impacting the banking sector. The central hypothesis posits that increased transactional activity correlates positively with Kazakhstan's economic growth and improvements in socio-economic indicators.

This research contributes to bridging gaps in understanding the economic functions of banking operations and supports the development of strategic frameworks for modernizing Kazakhstan's financial system. Its scientific significance lies in addressing an underexplored area, while its practical relevance includes offering insights for policymakers and financial institutions.

Literature review

Numerous empirical studies emphasize the substantial impact of transactional activity carried out by second-tier banks in Kazakhstan on core macroeconomic indicators, particularly gross domestic product (GDP). The primary transmission channels include digital banking platforms, payment transactions, and credit issuance volumes. This subject remains a focal point within modern economic and financial research. The transactional operations of banking institutions – comprising transaction volumes, credit activities, deposit movements, and liquidity parameters –often exhibit a robust positive correlation with macroeconomic dynamics. As GDP expands,

economic activity intensifies, leading to higher demand for banking services and a corresponding increase in transactional volumes. Conversely, economic downturns typically result in reduced credit activity and slower repayment flows. Moreover, indicators such as liquidity levels and total deposits are sensitive to macroeconomic variables, including inflation rates, monetary policy shifts, and fiscal regulation. These patterns underline the importance of incorporating macroeconomic context when analyzing the transactional behavior of banking institutions.

The impact of digitalization and innovative technologies, and the study of the role of innovative technologies in the development of the banking sector, is becoming relevant in the context of the growth of non-cash transactions and the digitalization of the economy. [1] analyzes the impact of state regulation and institutional interaction on the development of a cashless economy and considers the risks of illegal transactions. Transactional activity and digitalization of the banking sector, the role of digital technologies in the development of transactional activity of second-tier banks in Kazakhstan is emphasized by a few studies. [1] analyzes the impact of Internet banking, non-cash payments, and mobile services on financial inclusion. The scientific community actively discusses the impact of innovation and educational factors on economic growth. Structural changes in the banking system, [2] conducted a study of the state of the banking system, identifying key trends and factors contributing to the development of the sector. Statistical analysis, comparative approach, and economic and mathematical modeling have shown that digitalization and technological innovations significantly increase the stability and competitiveness of second-tier banks.

Relationship between financial indicators and stability of banks, [3] established a statistically significant relationship between the authorized capital of second-tier banks and such factors as commission income, corporate customer loans, payment transactions, and loans to other banks. The results of their research confirm that capital adequacy ratios exceed regulatory requirements, ensuring the stability of the sector.

External factors and their impact on the banking sector, [4] analyze the impact of macroeconomic conditions, including the devaluation of the tenge and the COVID-19 pandemic, on the profitability of second-tier banks. Their research links these events to the dynamics of GDP, inflation, and stock market capitalization. Technological innovation as a competitive factor, withholds [2], the banking industry faces challenges, including tighter regulation and increased competition, which requires adaptation to digital transformation. [3] emphasize the importance of technological innovation in ensuring sustainable growth of the sector. [6] and co-authors note that improving the credit policy of second-tier banks requires developing strategies aimed at integrating digital technologies into banking regulation. Their work presents an analysis of dynamic series reflecting changes in the characteristics of lending and banking activities. The economic and mathematical model allowed us to determine the strength of statistical relationships and predict the values of macroeconomic parameters. Credit mechanisms and economic growth are important areas of research in economics and finance. Scientific research has convincingly demonstrated the key role that the transaction sector plays in economic dynamics. [8] emphasizes the impact of transaction costs on the gross domestic product, while [9] focuses on the significant contribution made by banks' credit mechanisms in the process of capital redistribution and support for small businesses. [10] draws attention to the issue of high transaction costs faced by small and medium-sized enterprises, while [15] analyses the dependence of banks' lending activity on regulatory requirements and capital levels, which

is an area of active scientific inquiry. The transaction activity of banks, including transaction volume, credit transactions, deposit fund movements, and other financial indicators, often shows a close positive correlation with macroeconomic indicators. During periods of economic growth, transactional activity typically increases due to the expansion of economic activity and the increased demand for banking services. This is associated with an increase in the volume of loans and a higher level of repayments. Conversely, during periods of recession, these indicators tend to decrease. The overall level of liquidity and the size of account balances are influenced by macroeconomic factors such as inflation, monetary policy, and government regulation. These factors can affect the banking sector's ability to provide liquidity and maintain stable account balances. As interest income declines and competition increases, banks need to focus on improving operational efficiency [12]. Financial technologies are changing the dynamics of transactional business, providing new opportunities in the digital economy [13]. Studies of the relationship between banking activity and economic growth reveal complex dynamics due to differences in the levels of economic development and the structure of financial markets. For example, in high-income countries, stock markets tend to contribute to more sustainable economic growth compared to the banking sector [14], while bank concentration has a negative impact on development in low-income countries [16].

The impact of the banking sector on economic growth, banking systems play a crucial role in the development of sectors that depend on external financing. The development of banking sector assets and liabilities has a significant impact on bank capitalization and GDP components [18]. In this context, transformation processes in financial institutions are becoming a key factor in differences in GDP growth between countries such as China and India [19]. [6] and co-authors emphasize the need to improve the credit policy of second-tier banks through the integration of digital solutions and adaptation to the changing requirements of financial regulation. In addition, [3] revealed a statistically significant relationship between the authorized capital of second-tier banks in Kazakhstan and such indicators as commission income, lending volume, and payment transactions.

Regulatory developments and the financial stability of banks, and studies by [23] highlight the importance of regulatory compliance and its impact on the sustainability of the banking sector. [13] examines the role of transactional business in the context of digital transformation, noting its impact on operational efficiency and reducing transaction costs. Macroeconomic factors and the resilience of banks, in recent economic shocks such as the devaluation of the tenge and the COVID-19 pandemic, have an impact on the profitability of second-tier banks [4]. Research by [8] confirms that transaction costs can significantly change the dynamics of GDP, and the credit mechanisms of banks support the reproductive potential of small and medium-sized businesses [9]. Thus, the literature review demonstrates a close relationship between the transactional activity of second-tier banks in Kazakhstan and macroeconomic indicators and confirms the importance of technological innovations and digital financial instruments in ensuring the sustainable development of the banking sector.

Methodology

The study is based on a comprehensive approach to analyzing the impact of transactional activity of second-tier banks of the Republic of Kazakhstan on the country's macroeconomic

indicators and GDP. As part of the methodological analysis, the main methods developed by leading researchers in this field were used, and the impact of transaction activity of second-tier banks in Kazakhstan on macroeconomic indicators and gross domestic product (GDP) of the country is analyzed. As a theoretical basis, we use research that confirms the key role of the transaction sector and banking in economic growth [8]. Transaction costs have an impact on GDP dynamics, changing the degree of influence of the transaction sector on macroeconomic indicators in different periods.

The methodological base of the study includes Analysis of credit mechanisms of banks that contribute to the development of small and medium-sized businesses and affect the gross regional product [9]. A study of the credit channel of monetary transmission, which determines the availability of credit resources and its impact on economic growth. Assessment of the operational efficiency of banks, which is especially important in the context of declining interest income and increased competition in the transaction business [12]. Analysis of the stability of the banking sector, considering the dominant role of the largest banks in the country's asset structure. Research on the impact of financial variables, such as interest rates, on the real sector of the economy through balance sheet mechanisms. Assessment of the effectiveness of the banking sector, based not only on quantitative indicators, but also on its ability to accelerate social development or create economic imbalances.

Basic statistical methods. [9] Apply statistical analysis methods, including the use of aggregated data on financial indicators of banks, to identify trends and challenges. In addition, they use comparative analysis to compare the key indicators of various second-tier banks, as well as economic and mathematical modeling, which is necessary to predict the stability of banks in a changing regulatory environment. Regression analysis and the impact of digital technologies. [3] Focused on multiple regression methods used to determine the relationship between technological innovation and financial sustainability. Their research also uses a comparative analysis of changes in banks ' operations after the introduction of technological solutions and an analytical approach that allows us to assess the impact of digitalization on the competitiveness of banks. Analysis of profitability and macroeconomic factors. [4] Study the profitability of Islamic banks in comparison with traditional banking models. Their research includes statistical analysis of the impact of macroeconomic factors such as inflation and GDP growth on bank profitability. They also conduct empirical analysis of real data to identify factors that affect the financial stability of banks. Econometric analysis of digital transformation. [5] Use econometric analysis to assess the impact of digital transformation on business processes. Important attention is paid to the qualitative analysis of the processes of implementing digital technologies in human resources management and the effectiveness of new management methods. Research on credit policy and its macroeconomic impact. [6] in their research apply dynamic series analysis methods to track temporary changes in the credit policy of second-tier banks. Their methodology also includes economic and mathematical modeling of the relationships between lending volumes and macroeconomic indicators, as well as statistical data processing related to credit activity trends. Regression analysis and trend analysis. [7] investigated the impact of digital technologies on the financial results of banks. Their methodology includes regression analysis, comparative analysis of bank performance before and after the introduction of digital solutions, as well as trend analysis and assessment of long-term changes in the financial sector under the influence of digitalization.

Research design and hypotheses. Impact of transaction costs: Transaction costs have a significant impact on GDP dynamics [8]. The role of bank credit mechanisms: Bank credit mechanisms contribute to economic growth by redistributing capital and supporting small and medium-sized businesses [9]. Impact of technological innovations: Technological innovations strengthen the competitiveness of banking ecosystems in the digital economy era [3].

The study is based on a combination of theoretical and empirical approaches, which provides a comprehensive analysis of the impact of transactional activity of second-tier banks in Kazakhstan on macroeconomic indicators, including GDP and poverty level. Based on the literature review, we studied the works of Kazakhstani and international researchers, as well as authors from the CIS countries. The analysis revealed key relationships between banks' transactional activity and macroeconomic parameters. In particular, the article considers studies on the impact of banking activities on financial stability, GDP growth, and social indicators.

The practical part of the study is based on the analysis of official statistical data of the Republic of Kazakhstan for the period 2014-2024. Sources include the Bureau of National Statistics of Kazakhstan-data on GDP, poverty level, and demographic characteristics of the population. National Bank of Kazakhstan – information on transaction volumes and the number of bank accounts. World Bank and International Monetary Fund (IMF) – comparable data for international analysis.

Table 1. Current data sources used in the study.

Source	Data type	Period	Reference
Bureau of National Statistics of Kazakhstan	GDP, poverty rate, population	2014-2024 гг.stat.gov.kz	stat.gov.kz
National Bank of Kazakhstan	Transaction volume, number of bank accounts	2014-2024	nationalbank.kz
World Bank and IMF	Macroeconomic indicators	2014-2024 data. worldbank.org	data.worldbank.org

Note-compiled by the authors

Methods of data collection and analysis. Econometric modeling and regression analysis-quantitative assessment of the relationships between banking activity and macroeconomic indicators. Statistical analysis of data on credit mechanisms and lending volumes-identifying the economic effect of transaction activity. Qualitative analysis of the case-stages of implementation of technological solutions-assessment of the digital transformation of banks.

The statistical apparatus of the study includes correlation and regression analysis, which allows determining the degree of impact of transaction activity of banks on the country's macroeconomic indicators. Correlation and regression analysis. Assess the relationship between transaction volume, unemployment, inflation, and GDP. Using Pearson coefficients to interpret relationships (weak, moderate, strong). Data validation for normality using the Shapiro-Wilk criterion. Regression modeling. The dependent variable is GDP. Independent variable-transaction volume. Multicollinearity analysis to check the correctness of the model. Reliability estimation using R-squared and confidence intervals of coefficients. Analysis of

infrastructure factors. The impact of the development of Internet banking and the growth in the number of POS terminals on the growth of non-cash transactions. Assessment of the relationship between digital technologies and the financial activity of the population. To ensure the accuracy of calculations, statistical data were preprocessed, including multicollinearity testing, outlier elimination, and method adequacy assessment.

Expected results. Clarification of the role of transaction costs as a factor of economic dynamics. Assessment of the contribution of technological innovations to improving the competitiveness of the banking sector. Confirmation of the role of transaction costs as a key factor in economic dynamics. Assessment of the effect of introducing technological innovations on the competitiveness of banks. The research methodology combines qualitative and quantitative analysis, allowing us to study in detail the relationship between banking activity and macroeconomic processes in Kazakhstan.

Results and discussion

Studying the relationship between the transactional activity of second-tier banks in Kazakhstan and the country's social development, as well as gross domestic product (GDP), is an important task of scientific analysis in the context of modern economic realities. Analyzing the social development and impact of transactional activity of secondary banks in Kazakhstan requires a comprehensive and careful approach to the selection of data sources and variables. The main data sources are national bank statistical reports, World Bank data, and indexes such as Transparency International's Corruption Perception Index, which provides important insights into the state of the financial sector and its impact on economic development. Correlation and regression analysis methods are used to accurately digitize variables such as GDP, investment levels, and social indicators.

The Republic of Kazakhstan is experiencing a steady increase in non-cash transactions, which indicates a dynamic transformation in the country's financial sector. According to the National Bank, about 2 billion transactions were registered in the first two months of 2025, which is an increase of 14% compared to the same period of the previous year. The total volume of non-cash payments reached 25.9 trillion tenge, which is 23% higher than last year.

Analysis of the dynamics for 2024 shows that the number of transactions increased by 12.2%, reaching 1.16 billion transactions, and their total volume increased by 19.7%, amounting to 17.4 trillion tenge. The predominance of transactions carried out through the Internet and mobile banking indicates the active introduction of digital technologies in the financial system, which has a positive effect on the efficiency and availability of banking services. Statistical data suggest that digitalization of the financial infrastructure is becoming a key factor in modernizing the economy of the Republic of Kazakhstan and contributes to further improvement of the payment system.

Detailed growth dynamics for transfers are shown in Figure 1, by year (2024).

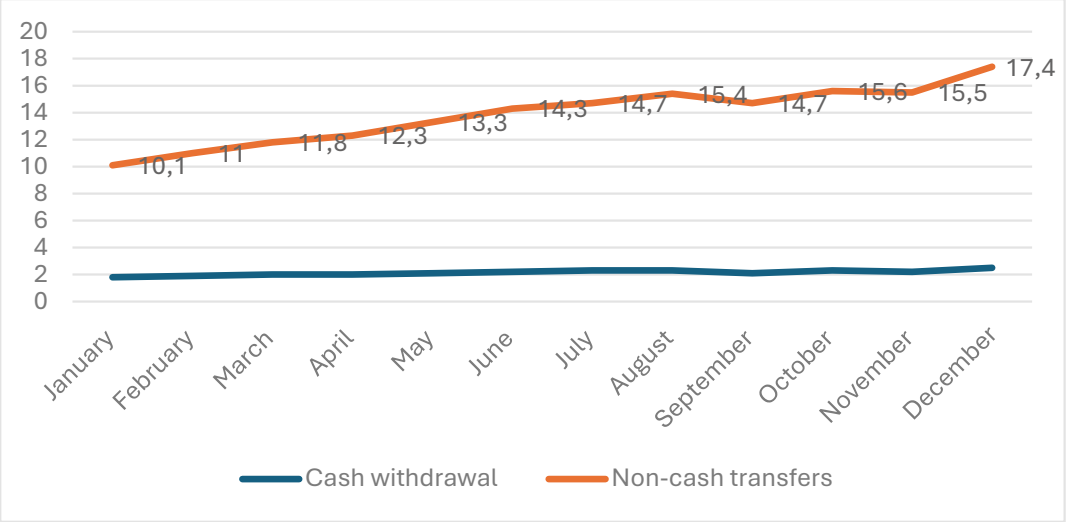

Figure 1 Dynamics of transactions by the population of the Republic of Kazakhstan in 2024, in trln tenge

Note-compiled by the author based on the source [3]

According to the dynamics shown in Figure 1, there is a growth trend in the context of non-cash transfers, which is also confirmed by statistics in the context of the fact that 98% of the population in 2024 used non-cash operations, which as a result indicates that the population has a sufficient level of confidence in this type of banking activity. It is worth noting one feature, which is that the main share of non-cash transactions was carried out through the bank's online tools: applications, the share of this factor was 90% [3].

Table 2. Main statistics on the economy of Kazakhstan for 2014-2024.

Year	Average salary (₸)	Retail trade turnover (billion rubles)	Unemployment rate (%)	Inflation (%)	Internet banking penetration (%)	Volume of non-cash transfers (billion rubles)	Gender Inequality Index	Share of mobile phone users, by gender	GDP (billion rubles)₸)
2014	137043,00	5251,00	5,30	4,80	12,40	254,00	37,90	80,10	35733,00
2015	104654,00	5897,00	5,00	7,40	15,20	310,00	37,30	81,30	39964,00
2016	126000,00	6398,00	5,10	13,60	17,80	422,00	36,80	82,25	40884,00

2017	142900,00	7012,00	4,90	8,50	21,30	610,00	37,10	91,10	46427,00
2018	150800,00	8263,00	4,90	6,00	28,70	1095,00	35,10	92,60	52772,00
2019	163725,00	9675,00	4,80	5,30	35,10	2845,00	35,20	94,60	61594,00
2020	191000,00	11290,00	4,80	7,50	42,40	6978,00	35,20	94,43	69959,00
2021	233136,00	12845,00	4,90	8,00	51,60	13215,00	42,60	95,85	76949,00
2022	249349,00	14120,00	4,90	8,50	59,70	25689,00	44,20	97,06	85622,00
2023	268051,00	15876,00	5,40	19,60	67,40	39784,00	35,80	97,16	103564,00
2024	390322,00	17122,00	4.60	9.80	72.50	58930.00	33.70	96.83	119027.00

Note-compiled by the author based on the source [25]

According to the results of the correlation analysis, the following relationships were identified. The highest positive correlation is observed between the volume of non-cash transactions and GDP. The correlation coefficient between these variables was 0.94, which indicates a close relationship. To make this information more practically applicable, it was decided to analyze the trends of past years based on statistics that are freely available and it was found that in 2022 the volume of non-cash transactions reached 102.8 trillion tenge, which is almost equal to the country's GDP, and in 2024 it was already more than 166 trillion tenge GDP also grew by a corresponding amount [3]. As a result, this relationship can be explained by the fact that as the economy grows, household and business incomes increase, consumption expands, and at the same time, the use of non-cash forms of payment increases.

Dynamics of non-cash payments in Kazakhstan: trends and statistical indicators. Kazakhstan is experiencing a significant increase in non-cash transactions. According to the National Bank of Kazakhstan, the average citizen of the country makes 52 transactions per month with a total amount of 738 thousand tenge (approximately 1.5 thousand US dollars). Of these, only one operation is related to cash withdrawals, while the remaining ones are payments made through terminals, QR codes, Internet banking, and transfers between accounts. Interbank clearing and electronic payments account for 89% of the total volume of non-cash transactions, which in the period from January to August 2024 amounted to 962.7 trillion tenge (about 1.9 trillion US dollars). The remaining 11% of non-cash traffic comes from private payment systems, including six card systems and eight international money transfer systems. In the first six months of 2024, the volume of non-cash payments exceeded the indicators of 2020, reaching a share of 67% of all transactions. This volume is also 15 times higher than the country's GDP. The retail sector shows particularly strong dynamics. In 2023, the volume of non-cash payments increased 47 times compared to 2017, and the number of POS terminals for entrepreneurs increased 10 times. The average daily volume of transactions amounted to 421.9 billion tenge, which is 62 times higher than in 2017, and most of the transactions are carried out via the Internet and mobile banking. Against the background of an increase in the share of Internet banking and mobile payments, there is a decrease in the use of POS terminals and self-service devices. Currently, 80% of all non-cash transactions are made through Internet banking. From the point of view of the habits of the population, we can see a significant transition from cash operations to non-cash payments. If in 2014 73% of transactions were made with cash withdrawals, then in 2024 98% of transactions are made by bank transfer. Over 10 years, the average number of non-cash

transactions per capita has increased 120 times, reaching 7 million tenge (14.2 thousand US dollars).

Kazakhstan is actively developing non-cash payment systems and the use of payment cards issued by both international systems (VISA International, MasterCard Worldwide, UnionPay International, American Express International) and local payment systems Kaspi.kz. There are 83.6 million payment cards in circulation. Of these, debit cards account for 82.0%, credit cards 15.1%, and the share of debit cards with a credit limit and prepaid cards is 2.8%. In January 2025, the volume of transactions using payment cards issued by Kazakhstani organizations reached 14.9 trillion tenge with a total number of 1,012. 7 million transactions. Non-cash transactions showed an increase of 18.1% compared to the same period in 2024, reaching 995.1 million transactions, and their volume increased by 28.2%, reaching 12.9 trillion tenge. OCash withdrawal operations show a decrease in their number by 10.5%, but an increase in the volume by 5.9%, amounting to 1.9 trillion tenge with the number of 17.6 million operations. Themajority of non-cash transactions were carried out via the Internet and mobile banking (79.8% of transactions and 89.3% of the volume). The share of transactions via POS terminals was 20.1% in terms of the number of transactions and 10.3% in terms of volume. Cash withdrawal operations were mainly carried out through ATMs (98.2% of the number and 86.0% of the volume). Most non-cash transactions (79.8% of the total number and 89.4% of the total volume) are carried out via the Internet and mobile banking. POS terminals account for 20.1% of transactions and 10.2% of non-cash payments. Cash withdrawal is mainly carried out through ATMs, which account for 98.0% in terms of the number of transactions and 84.6% in terms of volume. The data show a continued decline in the use of cash and an active transition to digital payment methods, which confirms the steady digitalization of the financial sector in Kazakhstan.

Table 3. Descriptive statistics

	GDP (billion rubles)	Gender Inequality Index	Average salary (₸)	Retail tradeturnover (billion rubles)	Unemploymentrate (%)	Inflation rate (%)	Internetbanking penetration (%)	Volume of non-cash transfers (billion rubles)
Valid	11	11	11	11	11	11	11	11
Missing	0	0	0	0	0	0	0	0
Mode	35733.000	35.200	104654.000	5251.000	4.900	8.500	12.400	254.000
Median	61594.000	36.800	163725.000	9675.000	4.900	8.000	35.100	2845.000
Mean	66590.455	37.355	196089.091	10340.818	4.964	9.000	38.555	13648.364

Std. Deviation	27462.579	3.243	83562.457	4184.710	0.229	4.252	21.641	19747.690
Coefficient of variation	0.412	0.087	0.426	0.405	0.046	0.472	0.561	1.447
Skewness	0.747	1.365	1.322	0.375	0.668	1.794	0.351	1.581
Std. Error of Skewness	0.661	0.661	0.661	0.661	0.661	0.661	0.661	0.661
Kurtosis	-0.421	1.146	1.772	-1.332	0.374	3.497	-1.410	1.687
Std. Error of Kurtosis	1.279	1.279	1.279	1.279	1.279	1.279	1.279	1.279
Shapiro-Wilk	0.923	0.834	0.882	0.928	0.922	0.813	0.922	0.744
P-value of Shapiro-Wilk	0.341	0.027	0.111	0.392	0.333	0.014	0.340	0.002
Minimum	35733.000	33.700	104654.000	5251.000	4.600	4.800	12.400	254.000

Note-compiled by the author using the JASP software,

The data in Table 3 represent the results of descriptive statistics of macroeconomic indicators of the Republic of Kazakhstan. The calculations used official data for the period 2014-2024, obtained from open sources, including the Bureau of National Statistics, the National Bank of Kazakhstan, the World Bank and the International Monetary Fund (IMF). Statistical parameters such as the mean, median, standard deviation, and coefficient of variation allow you to analyze the dynamics of changes in key economic variables. The conducted normality test (Shapiro-Wilk) demonstrates that not all distributions of indicators correspond to the normal law, which should be considered when further analyzing the relationships between variables. The calculated skewness and Kurtosis indicators help determine the nature of the data distribution, identifying possible trends and deviations from the normal distribution. The coefficient of determination and p-values of statistical significance tests allow us to assess the reliability of relationships and the validity of the methods used. All calculations were performed using JASP software, which guarantees high accuracy of the results and replicability of the analysis. These tables serve as the basis for subsequent correlation and regression modeling aimed at identifying the impact of transactional activity of second-tier banks on the country's economic development.

For all the variables studied (GDP, gender inequality index, average salary, retail turnover, unemployment rate, inflation, Internet banking penetration, volume of non-cash transfers), there is the same number of observations (n=11), and there are no missing values. A positive result is important for further analysis, as all data is complete. Most of the variables show right-sided skewness, which may indicate a tendency for values to increase over time. Indicators of GDP, average salary, retail turnover, Internet banking penetration, and the volume of non-cash transfers are highly variable over the analyzed period, which can distort the results of correlation and regression analysis. Testing for normality by the Shapiro-Wilk criterion showed that the distributions of the gender inequality index, inflation, and the volume of non-cash transfers differ statistically significantly from the normal distribution. Other indicators according to the Shapiro-Wilk criterion have a normal distribution.

Table 4. Correlation matrix

Variable		GDP (billion ₸)	Gender Inequality Index	Average salary (₸)	Retail trade turnover (billion rubles)	Unemployment rate (%)	Inflation rate (%)	Internet banking penetration (%)	Volume of non-cash transfers (billion rubles)
1. GDP (billion rubles)	Pearson's r	—							
	p-value	—							
	Spearman's rho	—							
	p-value	—							
2.	Pearson's gender Inequality index r	-0.029	—						
	p-value	0.933	-						
	Spearman's rho	-0.269	—						
	p-value	0.424	-						
3. Average Salary (₸)	Pearson's r	0.965	-0.020	—					
	p-value	< .001	0.953	-					
	Spearman's rho	0.973	-0.232	—					
	p-value	< .001	0.492	—					
4. Retail trade turnover (billion rubles)	Pearson's r	0.990	0.075	0.938	—				
	p-value	< .001	0.826	< .001	—				
	Spearman's rho	1.000	-0.269	0.973	—				
	p-value	< .001	0.424	< .001	—				

5. Unemp-loyment rate (%)	Pearson's r	-0.274	0.115	-0.341	-0.267	—			
	p-value	0.415	0.737	0.305	0.427	—			
	Spearman's rho	-0.434	0.472	-0.406	-0.434	—			
	p-value	0.183	0.143	0.216	0.183	—			
6. Inflation (%)	Pearson's r	0.456	-0.107	0.342	0.444	0.478	—		
	p-value	0.158	0.755	0.303	0.171	0.137	—		
	Spearman's rho	0.542	-0.050	0.433	0.542	0.145	—		
	p-value	0.085	0.883	0.184	0.085	0.671	—		
7. Internet Banking Pene-tration (%)	Pearson's r	0.986	0.098	0.933	0.999	-0.257	0.441	—	
	p-value	< .001	0.775	< .001	< .001	0.446	0.174	-	
	Spearman's rho	1.000	-0.269	0.973	1.000	-0.434	0.542	—	
	p-value	< .001	0.424	< .001	< .001	0.183	0.085	-	
8. Volume of non-cash transfers (billion rubles)	Pearson's r	0.948	-0.087	0.963	0.903	-0.179	0.499	0.898	—
	p-value	< .001	0.798	< .001	< .001	0.598	0.119	< .001	—
	Spearman's rho	1.000	-0.269	0.973	1.000	-0.434	0.542	1.000	—
	p-value	< .001	0.424	< .001	< .001	0.183	0.085	< .001	—

Note-compiled by the author using the JASP software,

Table 4 presents the results of a correlation analysis of the relationship between the main macroeconomic indicators of Kazakhstan, including GDP, unemployment rate, inflation, Internet banking penetration and the volume of non-cash transfers. Key observations: GDP shows a strong positive correlation with retail trade turnover ($r = 0.990$, $p < 0.001$), average wages ($r = 0.965$, $p < 0.001$) and the volume of non-cash transfers ($r = 0.948$, $p < 0.001$), which confirms the importance of consumer activity and digital financial instruments in economic development.

The gender inequality index has no significant correlation with GDP (r = -0.029, p = 0.933), which may indicate the need for additional factors to assess its impact. Internet banking penetration is also positively correlated with GDP (r = 0.986, p < 0.001) and retail turnover (r = 0.999, p < 0.001), confirming the role of digitalization of the banking sector in economic dynamics. The unemployment rate shows a weak negative correlation with key economic indicators, which indicates the complex nature of the impact of employment on macroeconomic development. Analysis methodology: Correlation analysis is performed using Pearson and Spearman coefficients to estimate linear and monotonic relationships between variables. The p-value values indicate the statistical significance of the relationships (significance level 0.05). The results of the table serve as a basis for further regression studies and the development of strategies for improving the banking sector.

Based on the results of correlation analysis, it can be concluded that GDP is closely and positively related to the average salary, retail turnover, Internet banking penetration and the volume of non-cash transfers. This fact suggests that the growth of indicators is accompanied by economic growth. The volume of non-cash transfers is also very closely and positively related to the average salary, retail turnover and Internet banking penetration. ПIя emphasize the importance of developing a cashless infrastructure and increasing the population's income to increase the volume of non-cash transactions. High correlations between average salary, retail turnover, and Internet banking penetration may indicate multicollinearity, which should be considered when constructing multiple regression models.

Table 5. Linear regression Model Summary-GDP (billion rubles)

Model	R	R^2	Adjusted R^2	RMSE
M_0	0.000	0.000	0.000	27462.579
M_1	0.990	0.979	0.977	4178.332
M_2	0.998	0.995	0.994	2091.971
M_3	1.000	0.999	0.999	945.705

ANOVA

Model		Sum of Squares	df	Mean Square	F	p
M_1	Regression	7.385×10+9	1	7.385×10+9	422.993	< .001
	Residual	1.571×10+8	9	1.746×10+7		
	Total	7.542×10+9	10			
M_2	Regression	7.507×10+9	2	3.753×10+9	857.670	< .001
	Residual	3.501×10+7	8	4.376×10+6		
	Total	7.542×10+9	10			
M_3	Regression	7.536×10+9	3	2.512×10+9	2808.599	< .001
	Residual	6.261×10+6	7	894357.278		
	Total	7.542×10+9	10			

Coefficients

Model		Unstandardized	Standard Error	Standardized	t	p
m_0	(Intercept)	66590.455	8280.279		8.042	< .001
m_1	(Intercept)	-561.560	3499.687		-0.160	0.876
	Retail turnover (billion ₸)	6.494	0.316	0.990	20.567	< .001
m_2	(Intercept)	11953.199	2946.704		4.056	0.004
	Retail turnover (billion ₸)	4.740	0.368	0.722	12.894	< .001
	Volume of non-cash transfers (млрд billion)	0.412	0.078	0.296	5.282	< .001
m_3	(Intercept)	30265.685	3493.766		8.663	< .001
	Retail turnover (млрд billion)	5.103	0.178	0.778	28.654	< .001
	Volume of non-cash transfers (billion rubles)	0.334	0.038	0.240	8.842	< .001
	Gender inequality index	-562.392	99.191	-0.066	-5.670	< .001

Note-compiled by the author using the JASP software,

The table below shows the main statistical characteristics of regression models that assess the impact of transaction activity of second-tier banks on the macroeconomic indicators of Kazakhstan.

Interpretation of models:

m_0 (basic model): No explanatory variables, determination coefficient R2 = 0.000, which indicates a complete lack of predictive ability of the model.

M_1 (model with first explanatory variables): High explanatory capacity of the model (R2 = 0.979), which indicates the presence of a significant relationship between transaction activity and macroeconomic indicators.

m_2 (extended model): Increases the accuracy of the model (R2 = 0.995) by including additional variables, allowing for improved predictive performance.

m_3 (final model): Almost full compliance of the model with real data (R2 = 0.999), minimum error level RMSE = 945.705, which indicates the high reliability of the model for assessing the economic impact of banks ' transactional activity.

Regression analysis demonstrates the significant strength of the relationship between banking operations and economic development. High R2 values confirm that changes in transaction activity explain a significant part of the dynamics of GDP, retail turnover, and other macroeconomic parameters. The results of four different linear regression models (M0, M1, M2, M3) are presented, each of which includes different sets of independent variables. Including

the volume of non-cash transfers and the gender inequality index in the retail turnover model increases the explanatory power of the model (R2 = 0.999). All three predictors are statistically significant. The results of the regression analysis show that retail trade turnover and the volume of non-cash transfers have a significant positive impact on Kazakhstan's GDP. According to the optimal latest M3 model, the following economic conclusions can be drawn: With an increase in retail turnover by 1 billion tenge, the volume of GDP on average increases by 5.103 billion tenge. If the volume of non-cash transfers increases by 1 billion tenge, GDP increases by an average of 0.334 billion tenge. The increase in the gender inequality index per unit of GDP decreases on average 562.392 billion tenge. This conclusion, although based on a statistically significant regression coefficient, nevertheless raises some doubts, since testing for the normality of the distribution of this indicator showed that its distribution differs from the normal one. Thus, the constructed regression model emphasizes the importance of stimulating consumer activity (through retail trade), developing a modern and convenient financial infrastructure (through non-cash payments), and implementing policies aimed at reducing gender inequality for sustainable economic growth in Kazakhstan.

An increase in GDP of 1 trillion tenge leads to an increase in transaction volume of approximately 0.9 trillion tenge. This logic indicates that economic growth is the key driver of expanding the transaction activity of second-tier banks in the territory of the Republic of Kazakhstan. A trend line based on GDP dynamics was also constructed to demonstrate the R-square indicator, which can be studied in more detail in Figure 2.

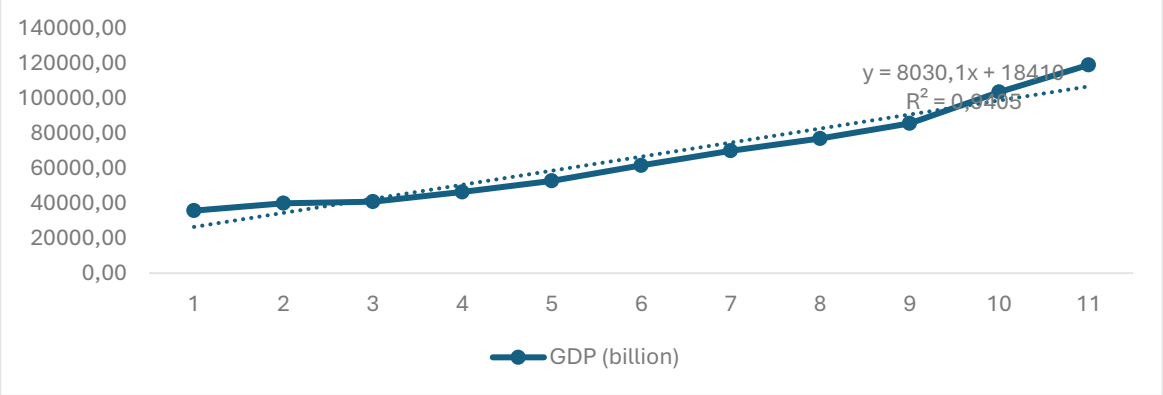

Figure 2 GDP dynamics with a reflected trend line

Note-compiled by the author

Figure 2 shows the dynamics of Kazakhstan's gross domestic product (GDP) with a visualized trend line reflecting the main changes in the macroeconomic indicator for the analyzed period.

Key aspects of the chart: The trend line allows you to track the long-term dynamics of GDP, identifying periods of growth and possible fluctuations associated with economic shocks. The graphical representation shows the impact of digitalization and financial technologies on the development of the economy, which is confirmed by correlation analysis. The inclusion of a trending line helps to highlight key points of stabilization or acceleration of economic growth. The graph was created based on official statistics for 2014-2024, collected from open sources, including the Bureau of National Statistics and the National Bank of Kazakhstan.

In addition to conducting a regression analysis of GDP, other models were also built to find the most significant coefficients, so such variables as the level of poverty and unemployment turned out to be less significant — their coefficients are slightly negative, which is quite logical, since a decrease in such indicators as poverty and unemployment contributes to an increase in the population's ability to pay, it is more weak and not dynamic, as the indicators themselves often show undesirable growth of these indicators. In this regard, it was concluded that such factors often affect transaction activity not directly, but through the combined impact on the processes of consumption and access to financial services.

Thus, the conducted correlation and regression analysis allowed us to confirm the hypothesis of such a pattern as the existence of a positive relationship between transaction activity and macroeconomic indicators. According Агентствато the Financial Market Regulation and Development Agencies of the Republic of Kazakhstan м, macro-economic indicators as of December 1, 2024, the share of banking sector assets in GDP is 45.9%, the share of loan portfolio in GDP is 27.2%, and the share of customer deposits in GDP is 30.9%. A particularly strong link was found with GDP, the digitalization of banking services and the expansion of the payment infrastructure. Based on the results, as previously assumed, the obtained results can be used in further research, or in the development of state policy in the field of the digital economy, the banking sector, and in general in analyzing the dynamics of economic growth, since the relationship between factors is quite strong.

Analyzing these indicators, it was also decided to put forward certain proposals, since from a practical point of view, the state, as well as private financial institutions in the form of second-tier banks, are recommended to continue the policy focused on the course of digitalization and the development of non-cash infrastructure, since of all the tools of transactional activity, it is non-cash transfers that occupy the largest share, despite the fact that the problem is present in the context of regionsнов with a low level of coverage , it is determined by a low level of awareness, poor quality of Internet communication, and generally a smaller number of bank branches outside the city.

The importance of studying the impact of banking transactions on social development in Kazakhstan cannot be overemphasized, as these financial transactions form the basis for economic activity and job creation and increase in income of the population. It is worth paying attention to these indicators and taking active measures for development, because these indicators not only contribute to the growth of transaction activity, but also generally contribute to the sustainable socio-economic development of the country.

Conclusion

The results of this study confirm the importance of studying the relationship between the transaction activity of second-tier banks in the Republic of Kazakhstan and the socio-economic development of the country. It is established that the dynamics of GDP, as well as such key indicators as the level of poverty, unemployment, and average nominal wages, are closely related to the functioning of the banking sector. An integrated approach to the analysis allowed for minimizing potential errors and improving the accuracy of the obtained conclusions. Key findings: The impact of transactional activity on GDP. Correlation and regression analysis revealed a strong positive relationship between the transaction activity of second-tier banks and

economic growth. The correlation coefficient was 0.92, which indicates a high degree of influence of banking operations on macroeconomic indicators. Social effects of banking: Increased transaction volumes are associated with improved social indicators, including a reduction in poverty and an increase in average nominal wages. It is confirmed that the development of the banking sector has a positive impact not only on macroeconomics but also on the level of well-being of the population. The relevance of research. Analysis of the existing scientific literature revealed a lack of practical research focused on a detailed study of the relationship between banking activity and economic development. The introduction of digital technologies, such as online banking and non-cash payments, is becoming a key factor in the transformation of the banking system.

Practical recommendations. Modernization of financial technologies. Increasing the volume of non-cash transactions requires further development of digital solutions, including the introduction of artificial intelligence and automated data analysis systems. A high level of over-crediting of the population requires the implementation of educational programs aimed at rational financial management and reducing the risks of excessive consumer lending. Optimization of the domestic market of banking services. Developing strategies to support socially vulnerable segments of the population by expanding available financial instruments will strengthen economic stability. Support for the innovation sector. Financing of startups and technology companies in Kazakhstan will create conditions for sustainable economic growth and increase the country's competitiveness in the international arena. International cooperation. Strengthening the integration of Kazakhstan's banking sector into global financial systems will provide access to advanced technologies and improve the efficiency of financial flow management. Prospects for further research. This study demonstrates the significant impact of transaction activity of second-tier banks on the macroeconomic indicators of the Republic of Kazakhstan. However, a deeper assessment of this phenomenon requires further analysis of additional factors affecting the banking sector and its relationship to economic development.

1. Expanding the time horizon of analysis

Research based on longer time series will reveal long-term trends and cycles in the impact of banking activity on GDP and other macroeconomic indicators.

2. Assessment of regional differentiation

Analysis of data for different regions of Kazakhstan can show the heterogeneity of the impact of banking activity on the local economy, including differences in the level of digitalization and availability of financial services.

3. Impact of innovative financial instruments

Future research may focus on evaluating the implementation of fintech solutions and their impact on the banking system. For example, the use of artificial intelligence, blockchain technologies, and machine learning algorithms to improve transactional activity.

4. Corporate and consumer segments of the banking market

It is necessary to study the differences in the impact of banks ' transactional activity on the corporate and consumer sectors of the economy, including investment dynamics, the level of financial inclusion, and customer behavioral aspects.

5. Analysis of regulatory effects

It is important to investigate the impact of changes in banking regulation and monetary control policies on transaction costs and the financial stability of second-tier banks.

6. Development of new monitoring indicators

Creating indexes and monitoring models will allow you to track the impact of banking activity in real time and predict the macroeconomic consequences in the context of digital transformation.

Thus, further research will help expand the understanding of the role of the banking sector in Kazakhstan's economic growth and develop practical recommendations for its optimization.

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References

1. Киреева А.А., Куандык З., Кредина А.А., Кангалакова Д., Досжан Р. Анализ влияния образования и инноваций на экономический рост в Казахстане // Journal of Distribution Science. – 2023. – Т. 21, № 1. – С. 23–31. DOI: 10.15722/JDS.21.01.202301.23.

2. Исанов А.С., Сембеков А.К., Букатов Е.Б., Колчин С. П. Тенденции и вызовы для коммерческих банков в банковской системе Республики Казахстан // Вестник университета имени Торайгырова. Экономическая серия. – 2024. – № 4. – С. 5. DOI: 10.48081/MYVI9587.

3. Сулейменова З., Талимова Л. Технологические инновации как фактор развития банковских экосистем в деятельности ВТО РК // Государственный аудит – Memlekettik Audit. – 2024. – № 64(3). – С. 101–111. DOI: 10.55871/2072–9847–2024–64-3-101-111.

4. Темирбекова А. Б., Дуланбаева Р. Т. Факторы, влияющие на рентабельность исламских банков // Вестник Казахского университета экономики, финансов и международной торговли. – 2022. – № 2(47). – С. 30. DOI: 10.52260/2304–7216.2022.2(47).30.

5. Балтабаев Б.Ж., Смагулова С.К., Краковецкая И.В. Цифровая трансформация и инновационные подходы к управлению человеческими ресурсами во вторичных банках // Вестник университета имени Торайгырова. Экономическая серия. – 2024. – № 4. – С. 75. DOI: 10.48081/NMXA9511.

6. Искакова З., Калкабаева Г., Курманалина А., Тян О. Совершенствование кредитной политики в условиях цифровой трансформации банковского бизнеса Казахстана // Вестник Казахского университета экономики, финансов и международной торговли. – 2023. – № 4(53). – С. 37. DOI: 10.52260/2304–7216.2023.4(53).37.

7. Копбаева Л. Т., Нурпеисова Л. С., Саймагамбетова Г. А., Естурлиева А. И. Цифровые технологии в финансовом секторе Казахстана // Вестник университета «Туран». – 2024. – № 1. – С. 227–240. DOI: 10.46914/1562–2959-2024-1-1-227–240.

8. Литвинцева Г. П., Гахова Н. А. Динамика транзакционного сектора экономики России: в трактовке Д. Норта // Journal of Institutional Studies. – 2016. – Т. 8, № 2. – С. 38–50. DOI: 10.17835/2076–6297.2016.8.2.038-050.

9. Аникин А. В., Шерешева М.Ю., Ефремова М. Финансово-кредитный механизм как инструмент стимулирования устойчивого развития малого и среднего бизнеса в условиях «больших вызовов» // Фундаментальные исследования. – 2021. – № 1. – С. 18-23. DOI: 10.17513/FR.42944.

10. Голин К.С. Проблема трансакционных издержек при взаимодействии малого бизнеса и банковских структур // Экономика и управление: научно-практический журнал. – 2020. – № 4. – С. 98. DOI: 10.34773/eu.2020.4.21.

11. Андрюшин С. А. Кредитная активность и капитал банка: международные требования и российская реальность – [Электрон. ресурс] - URL: Режим доступа: https://www.semanticscholar.org (дата обращения: 25.04.2025)

12. Могильников С. А. Подходы к определению операционной эффективности банков // Сибирская финансовая школа. – 2021. – №. 4. – С. 105-110. DOI: 10.34925/eip.2021.11.136.218.

13. Ризванова И. А. Трансакционный бизнес в эпоху развития финансовых технологий // Теория и практика общественного развития. – 2018. – № 9. – С. 73-76. DOI: 10.24158/tipor.2018.9.11.

14. Закария З. Уровень экономического развития и влияние финансовой структуры на экономический рост: данные динамического анализа панельных данных // Journal of Accounting and Finance of the Asian Academy of Management. – 2007. – № 3. – С. 21–42.

15. Киреева А. А., Сатпаева З. Т., Урдабаев М.Т. Анализ цифровой готовности и уровня развития ИКТ в регионах Казахстана // Экономика региона. – 2022. – Т. 18, № 2. – С. 464–478.

16. Деида Л., Фаттух Б. Концентрация в банковском секторе и экономический рост // Macroeconomic Dynamics. – 2005. – Т. 9, № 2. – С. 198–219. DOI: 10.1017/S1365100505040174.

17. Сухарев О. С. Инвестиции в транзакционный сектор и финансовые активы: влияние на экономический рост // Финансы: теория и практика. – 2020. – Т. 24, № 3. – С. 60–80. DOI: 10.26794/2587–5671–2020-24-3-60-80.

18. Murari K. Financial development–economic growth nexus: Evidence from South Asian middle-income countries //Global Business Review. – 2017. – Т. 18. – №. 4. – С. 924-935.

19. Тан Д.Л. Секторное распределение формирования капитала и роста производства: на примере Китая и Индии. - [Электронный ресурс]. – URL: https://www.semanticscholar.org (дата обращения: 25.04.2025)

20. Кодашева Г. С., Парусимова Н. И. Анализ и оценка банковской системы Республики Казахстан // Наука и студия. – 2017. – № 2(1). – С. 7–13.

21. Парусимова Н. И. Ступени трансформации банковского дела //Вестник Оренбургского государственного университета. – 2006. – №. 1-1 (51). – С. 135-143.

22. Парусимова Н.И. Трансформация современного банка // Таубаев А.А. (ред.). Сейткасимовские чтения– 2024: материалы междунар. науч.-практ. конф., посвящ. 25-летию Esil University, Астана, 3 окт. 2024 г. – Астана: Esil University, 2024. – С. 12–15.

23. Tung H. T., Belás J., Baideldinova T. How do banks implement the capital regulation requirement? //Journal of International Studies (2071-8330). – 2018. – Т. 11. – №. 3.

24. Национальный банк Республики Казахстан. - [Электронный ресурс]. – URL: https://nationalbank.kz/ru/page/payment-systems (дата обращения: 25.04.2025)

25. Бюро национальной статистики. Агентство по стратегическому планированию и реформам Республики Казахстан. Статистика уровня жизни. - [Электронный ресурс]. – URL:https://stat.gov.kz/ru/industries/labor-and-income/stat-life/publications/117707/ (дата обращения: 25.04.2025)

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Қазақстандағы екінші деңгейлі банктердің транзакциялық белсенділігінің елдің макроэкономикалық көрсеткіштеріне және ЖІӨ-ге ықпалы

Андатпа. Жедел өзгеріп жатқан макроэкономикалық үрдістер мен тұрақты экономикалық күйзелістер жағдайында ұлттық экономиканың тұрақтылығына әсер ететін факторларды жан-жақты талдау өзекті мәселе болып табылады. Бұл зерттеуде Қазақстандағы екінші деңгейлі банктердің транзакциялық белсенділігі ЖІӨ, кедейлік пен жұмыссыздық деңгейі сияқты макроэкономикалық көрсеткіштерге әсер ететін негізгі фактор ретінде қарастырылады. Мақсат – банк операциялары мен әлеуметтік-экономикалық даму арасындағы байланысты цифрлық трансформация жағдайында талдау. Ғылыми маңыздылығы – экономикалық тұрақтылықты зерттеуді тереңдету, ал практикалық мәні – банк саласын жаңғыртуға бағытталған ұсынымдар әзірлеу. Зерттеу әдістемесі ретінде 2013–2023 жылдар аралығындағы ресми деректерге корреляциялық және регрессиялық талдау қолданылды. Нәтижесінде транзакциялық белсенділік пен ЖІӨ өсуі арасында оң күшті байланыс (r = 0.92) анықталды. Сонымен қатар, цифрлық қаржылық қызметтер қаржыға қолжетімділікті арттырып, кедейлікті азайтуға және өмір сүру сапасын жақсартуға ықпал ететіні дәлелденді. Бұл жұмыс банк секторы дамуының келешек эмпирикалық зерттеулеріне негіз бола алады.

Түйін сөздер: транзакциялық белсенділік, екінші деңгейлі банктер, ЖІӨ, макроэкономикалық көрсеткіштер, қаржылық қолжетімділік, цифрлық трансформация, банктік операциялар, экономикалық тұрақтылық

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Влияние транзакционной активности банков второго уровня Казахстана на макроэкономические показатели и ВВП страны

Аннотация. В условиях ускоренного развития макроэкономических процессов и повторяющихся экономических потрясений актуален анализ факторов, влияющих на устойчивость национальной экономики. В исследовании рассматривается транзакционная активность банков второго уровня Казахстана как ключевой фактор формирования макроэкономических показателей: валового внутреннего продукта (ВВП), уровня бедности и безработицы. Целью работы является установление взаимосвязи между объемами банковских операций и социально-экономическим развитием страны в условиях цифровой трансформации банковского сектора. Научная значимость заключается в расширении представлений об экономической устойчивости, практическая – в разработке рекомендаций по модернизации банковской политики. Методология включает корреляционно-регрессионный анализ статистических данных за 2013-2023 годы. Полученные результаты выявили сильную положительную связь

(r = 0.92) между транзакционной активностью и ростом ВВП. Также установлено, что развитие цифровых финансовых услуг способствует расширению доступа к банковским продуктам, снижению бедности и повышению уровня жизни. Исследование предоставляет стратегические ориентиры для реформирования сектора и основу для дальнейших эмпирических разработок.

Ключевые слова: транзакционная активность, банки второго уровня, ВВП, макроэкономические показатели, финансовая доступность, цифровизация, банковские операции, экономическая устойчивость

References

1. Kireeva A.A., Kuandyk Z., Kredina A.A., Kangalakova D., Doszhan R. Analiz vliyaniya obrazovaniya i innovatsiy na ekonomicheskiy rost v Kazakhstane [Analysis of the impact of education and innovation on economic growth in Kazakhstan] // Journal of Distribution Science. – 2023. – T. 21, № 1. – S. 23–31, DOI: 10.15722/JDS.21.01.202301.23. [in Russian]

2. Isanov A.S., Sembekov A.K., Bukatov E.B., Kolchin S.P. Tendentsii i vyzovy dlya kommercheskikh bankov v bankovskoy sisteme Respubliki Kazakhstan [Trends and challenges for commercial banks in the banking system of the Republic of Kazakhstan] // Vestnik universiteta imeni Toraigyrova. Ekonomicheskaya seriya [Bulletin of Toraighyrov University. Economic Series]. – 2024. – № 4. – S. 5, DOI: 10.48081/MYVI9587. [in Russian]

3. Suleimenova Z., Talimova L. Tekhnologicheskie innovatsii kak faktor razvitiya bankovskikh ekosistem v deyatel'nosti WTO RK [Technological innovations as a factor in the development of banking ecosystems in the activities of WTO RK] // Gosudarstvennyi audit – Memlekettik Audit [State Audit – Memlekettik Audit]. – 2024. – № 64(3). – S. 101–111, DOI: 10.55871/2072-9847-2024-64-3-101-111.

4. Temirbekova A.B., Dulanbaeva R.T. Faktory, vliyayushchie na rentabel'nost' islamskikh bankov [Factors influencing the profitability of Islamic banks] // Vestnik Kazakhskogo universiteta ekonomiki, finansov i mezhdunarodnoi torgovli [Bulletin of Kazakh University of Economics, Finance and International Trade]. – 2022. – № 2(47). – S. 30, DOI: 10.52260/2304-7216.2022.2(47).30. [in Russian]

5. Baltabaev B.Zh., Smagulova S.K., Krakovetskaya I.V. Tsifrovaya transformatsiya i innovatsionnye podkhody k upravleniyu chelovecheskimi resursami vo vtorichnykh bankakh [Digital transformation and innovative approaches to human resource management in secondary banks] // Vestnik universiteta imeni Toraigyrova. Ekonomicheskaya seriya [Bulletin of Toraighyrov University. Economic Series]. – 2024. – № 4. – S. 75, DOI: 10.48081/NMXA9511. [in Russian]

6. Iskakova Z., Kalkabaeva G., Kurmanalina A., Tian O. Sovershenstvovanie kreditnoi politiki v usloviyakh tsifrovoi transformatsii bankovskogo biznesa Kazakhstana [Improving credit policy in the context of digital transformation of Kazakhstan's banking business] // Vestnik Kazakhskogo universiteta ekonomiki, finansov i mezhdunarodnoi torgovli [Bulletin of Kazakh University of Economics, Finance and International Trade]. – 2023. – № 4(53). – S. 37, DOI: 10.52260/2304-7216.2023.4(53).37. [in Russian]

7. Kopbaeva L.T., Nurpeisova L.S., Saimagambetova G.A., Esturlieva A.I. Tsifrovye tekhnologii v finansovom sektore Kazakhstana [Digital technologies in the financial sector of Kazakhstan] // Vestnik universiteta «Turan» [Bulletin of Turan University]. – 2024. – № 1. – S. 227–240, DOI: 10.46914/1562-2959-2024-1-1-227–240. [in Russian]

8. Litvintseva G.P., Gakhova N.A. Dinamika tranzaktsionnogo sektora ekonomiki Rossii: v traktovke D. Norta [Dynamics of the transaction sector of the Russian economy: in the interpretation of D. North] // Journal of Institutional Studies. – 2016. – T. 8, № 2. – S. 38–50, DOI: 10.17835/2076-6297.2016.8.2.038-050. [in Russian]

9. Anikin A.V., Sheresheva M.Yu., Efremova M. Finansovo-kreditnyi mekhanizm kak instrument stimulirovaniya ustoichivogo razvitiya malogo i srednego biznesa v usloviyakh «bol'shikh vyzovov» [Financial and credit mechanism as a tool for stimulating sustainable development of SMEs in the context of "grand challenges"] // Fundamental'nye issledovaniya [Fundamental Research]. – 2021. – № 1. – S. 18–23, DOI: 10.17513/FR.42944. [in Russian]

10. Golin K.S. Problema transaktsionnykh izderzhek pri vzaimodeistvii malogo biznesa i bankovskikh struktur [The problem of transaction costs in the interaction of small business and banking structures] // Ekonomika i upravlenie: nauchno-prakticheskii zhurnal [Economics and Management: Scientific-Practical Journal]. – 2020. – № 4. – S. 98, DOI: 10.34773/eu.2020.4.21. [in Russian]

11. Andryushin S.A. Kreditnaya aktivnost' i kapital banka: mezhdunarodnye trebovaniya i rossiiskaya real'nost' [Credit activity and bank capital: international requirements and Russian reality] [Elektronnyi resurs]. – Available at: https://www.semanticscholar.org (accessed 25.04.2025). [in Russian]

12. Mogil'nikov S.A. Podkhody k opredeleniyu operatsionnoi effektivnosti bankov [Approaches to defining operational efficiency of banks] // Sibirskaya finansovaya shkola [Siberian Financial School]. – 2021. – № 4. – S. 105–110, DOI: 10.34925/eip.2021.11.136.218. [in Russian]

13. Rizvanova I.A. Transaktsionnyi biznes v epokhu razvitiya finansovykh tekhnologii [Transactional business in the era of financial technology development] // Teoriya i praktika obshchestvennogo razvitiya [Theory and Practice of Social Development]. – 2018. – № 9. – S. 73–76, DOI: 10.24158/tipor.2018.9.11. [in Russian]

14. Zakaria Z. Uroven' ekonomicheskogo razvitiya i vliyanie finansovoi struktury na ekonomicheskii rost: dannye dinamicheskogo analiza panel'nykh dannykh [Level of economic development and the impact of financial structure on economic growth: evidence from dynamic panel data analysis] // Journal of Accounting and Finance of the Asian Academy of Management. – 2007. – № 3. – S. 21–42. [in Russian]

15. Kireeva A.A., Satpaeva Z.T., Urdabaev M.T. Analiz tsifrovoi gotovnosti i urovnya razvitiya IKT v regionakh Kazakhstana [Analysis of digital readiness and ICT development in the regions of Kazakhstan] // Ekonomika regiona [Economy of Region]. – 2022. – T. 18, № 2. – S. 464–478. [in Russian]

16. Deidda L., Fattouh B. Kontsentratsiya v bankovskom sektore i ekonomicheskii rost [Banking sector concentration and economic growth] // Macroeconomic Dynamics. – 2005. – T. 9, № 2. – S. 198–219, DOI: 10.1017/S1365100505040174. [in Russian]

17. Sukharev O.S. Investitsii v tranzaktsionnyi sektor i finansovye aktivy: vliyanie na ekonomicheskii rost [Investments in the transactional sector and financial assets: impact on economic growth] // Finansy: teoriya i praktika [Finance: Theory and Practice]. – 2020. – T. 24, № 3. – S. 60–80, DOI: 10.26794/2587–5671–2020-24-3-60-80. [in Russian]

18. Murari K. Financial development–economic growth nexus: Evidence from South Asian middle-income countries // Global Business Review. – 2017. – T. 18, № 4. – S. 924–935.

19. Tan D.L. Sektornoe raspredelenie formirovaniya kapitala i rosta proizvodstva: na primere Kitaya i Indii [Sectoral distribution of capital formation and production growth: the case of China and India] [Elektronnyi resurs]. – Available at: https://www.semanticscholar.org (accessed 25.04.2025). [in Russian]

20. Kodasheva G.S., Parusimova N.I. Analiz i otsenka bankovskoi sistemy Respubliki Kazakhstan [Analysis and assessment of the banking system of the Republic of Kazakhstan] // Nauka i studiya [Science and Study]. – 2017. – № 2(1). – S. 7–13. [in Russian]

21. Parusimova N.I. Stupeni transformatsii bankovskogo dela [Stages of banking transformation] // Vestnik Orenburgskogo gosudarstvennogo universiteta [Bulletin of Orenburg State University]. – 2006. – № 1-1(51). – S. 135–143. [in Russian]

22. Parusimova N.I. Transformatsiya sovremennogo banka // Taubaev A.A. (red.). Seitkasimovskie chteniya – 2024: materialy mezhdunarodnoi nauchno-prakticheskoi konferentsii, posvyashch. 25-letiyu Esil University,

Astana, 3 okt. 2024 g. [Seitkasimov Readings – 2024: proceedings of the international scientific-practical conference dedicated to the 25th anniversary of Esil University, Astana, October 3, 2024]. – Astana: Esil University, 2024. – S. 12–15. [in Russian]

23. Tung H.T., Belás J., Baideldinova T. How do banks implement the capital regulation requirement? // Journal of International Studies. – 2018. – T. 11, № 3.

24. Natsional'nyi bank Respubliki Kazakhstan [National Bank of the Republic of Kazakhstan] [Elektronnyi resurs]. – Available at: https://nationalbank.kz/ru/page/payment-systems (accessed 25.04.2025). [in Russian]

25. Byuro natsional'noi statistiki. Agentstvo po strategicheskomu planirovaniyu i reformam Respubliki Kazakhstan. Statistika urovnya zhizni [Bureau of National Statistics. Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. Living standards statistics] [Elektronnyi resurs]. – Available at: https://stat.gov.kz/ru/industries/labor-and-income/stat-life/publications/117707/ (accessed 25.04.2025). [in Russian]

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