

# Does the growth of state bank capital stimulate the development of the financial sector and the economy? A look through the prism of the global financial crisis of 2008-2009

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## Abstract

The authors of a given article analyze the impact of increasing the share of state bank capital on such indicators of economic development and the financial system of the country as: the quality and depth of financial intermediation, the level of confidence in the banking sector, the level of transaction costs, the policy of banks on lending to the private sector of the economy, the level of political engagement of the banking sector, quality of loan portfolios of commercial banks, rate of economic growth of the country and indicators of economic development. Calculations based on the example of Ukraine give grounds to assert that the existing model of functioning of state-owned banks has a negative impact on the development of the banking system and the economy as a whole.

**Keywords:** banks with state share, state banks, nationalized banks, subsidiary state banks, remedial bank, banking system.

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## Introduction

Most of the economic studies of the late twentieth century have identified the problems of the functioning of state banks both from a commercial point of view and in the context of possible imbalances in the allocation of state financial resources, a rise in the level of political engagement of the banking sector, a decrease in the quality of financial intermediation, and the like. At the same time, as a result of the global financial crisis of 2008-2009, many countries in the world were forced to nationalize problem private banks, increased the share of state property in banking systems (for example, in industrial countries this number was from 7.3% in 2007 to 10.8% in 2009, although in 2010 it fell slightly to 9.9%). Banks with state participation often do not perform one of their main functions – reducing transaction costs in the financial market, since they have a much higher net interest margin than private banks. They spend significantly less money on marketing than private banks, since much of this expenditure has been transferred to the state. A significant level of lending by these banks to imports of consumer goods and services suggests that their capital, which is state property, is spent on financing the economies of other countries that discourages economic growth in national economies. Thus, taking advantage of the privileged position in the market that provides them with state participation, banks with state participation have turned into zones of accumulating unjustifiably high volumes of capital, and they function as ordinary commercial banks. This calls for a radical revision of the conceptual approaches to and the functioning of banks with state participation and regulation of their activities.

## Literature review

In recent years, scientific discussions on the functions of banks with state participation in the economy, the mechanisms of their functioning and place in the financial system have significantly revived. Studies conducted in recent years, especially by the IMF and World Bank specialists, and the experience of post-crisis stabilization in

some countries of the world, have revealed the extreme heterogeneity of results on the effects of state presence in developed and developing countries.

Levy Yeyati E., Micco A., Panizza U. (2004) found no evidence that the presence of state-owned banks in Latin America countries promotes economic growth or financial development, they also find that the evidence that state-owned banks in this country lead to lower growth and financial development is not as strong as previously thought [1].

La Porta R., López-de-Silanes F., Shleifer A. (2002) and La Porta R., Lopez-de-Silanes F. (1999) got evidence that government ownership of banks is associated with slower subsequent financial development, associated with lower subsequent growth of per capita income, and in particular with lower productivity growth rather than slower factor accumulation? They made conclusion that these retarding effects of government ownership of banks appear to be especially significant in the less developed countries [2].

Korner T., Schnabel I. (2010) argued that relationship between public ownership of banks and lower GDP growth does not hold for all countries, but depends on a country's financial development and political institutions. They concluded that public ownership is harmful only if a country has low financial development and low institutional quality and that the negative impact of public ownership on growth fades quickly as the financial and political system develops. In highly developed countries, they found no or even positive effects of public ownership of banks on GDP growth [3].

Andrianova S., Demetriades P., Shortland A. (2009) put forward a modern version of the 'developmental' view of government-owned banks which shows that the combination of information asymmetries and weak institutions creates scope for such banks to play a growth-promoting role. They presented new cross-country evidence consistent with our theoretical predictions. Specifically, they show that during 1995-2007 government ownership of banks has been robustly associated with higher long run growth rates, moreover, previous results suggesting that government ownership of banks is associated with lower long run growth rates are not robust to conditioning on more 'fundamental' determinants of economic growth [4].

Barth J.R., Caprio G., Levine R. (2000) found that the greater the share of bank assets controlled by state-owned banks, on average, the less financial development as well as the development of the nonbank sector and the stock market will be [5].

Using data on Indian state-owned banks for 1994-2005, Das, Abhiman and Ghosh, Saibal (2007) found that credit risk is significantly influenced by individual bank-level variables, the result holds even after controlling for macroeconomic conditions [6].

Shleifer A. (1998). Found that private ownership should generally be preferred to public ownership when the incentives to innovate and to contain costs must be strong. In essence, this is the case for capitalism over socialism, explaining the dynamic vitality' of free enterprise. The great economists of the 1930s and 1940s failed to see the dangers of socialism in part because they focused on the role of prices under socialism and capitalism and ignored the enormous importance of ownership as the source of capitalist incentives to innovate. Moreover, many of the concerns that private firms fail to address social goals' can be addressed through government contacting and regulation without resort to government ownership. The case for private provision only becomes stronger when competition between suppliers, reputational mechanisms, and the possibility of provision by private not-for-profit firms, as well as political patronage and corruption, are brought into play [9].

Beck T., Crivelli J.M., Summerhill W. (2005) analyze the different options-liquidation, federalization, privatization, and restructuring-that the Brazilian state government had for the transformation of state banks under the Programa de Incentivo á Redução do Setor Público Estadual na Atividade Bancária (PROES) in the late 1990s. Specifically, they explore the factors behind the states' choices and the effects of the transformation process on bank performance and efficiency. The authors find that states that were more dependent on federal transfers, whose banks were already under federal intervention and that established development agencies were more likely to relinquish control over their banks and transformation processes. They also find that privatized banks had improved performance, while restructured banks did not [10].

Glushkova E.A. [7], using the example of the BRIC countries, obtains interesting results: 1) refutes the thesis of "political theory" that regardless of the level of the country's development, the highest scales of state presence stipulate a lower level of development of financial intermediation; 2) partially confirms the thesis "development theory" about the positive impact of state participation in the banking sector on some of its characteristics, but only at a time when the level of economic development of the country is low enough, as the economies of the BRIC countries develop, these positive effects are either spurred on or become negative; 3) shows that state-owned banks clearly do not play a positive role in a situation where the level of economic development is rather low, relative to individual indicators, this impact is negative. At the same time, according to the BRIC countries, this thesis is confirmed that the strength of these effects is decreasing with the level of development of the financial sector and against the background of stable rates of economic growth, with the effect becoming positive for certain indicators. 4) found that the heterogeneity of macroeconomic effects of state presence is not homogeneous, directly dependent on the level of economic development, and therefore, any empirical estimates of the scale and even the direction of this influence require careful interpretation only about analysis.

## Methods and data

As a result of lasting fundamental research in this scientific direction, 7 hypotheses were formed about the influence of state capital on the financial sector of the country and the economy as a whole. So, in particular, these hypotheses concern the influence of increasing the share of state bank capital on quality and depth of financial intermediation; level of confidence in the banking sector; level of transaction costs; the policy of banks on lending to the private sector of the economy; the level of politicization of the banking sector; quality of loan portfolios of commercial banks; economic growth rates of the country and indicators of economic development.

These hypotheses have been repeatedly tested on the data of various countries of the world, as evidenced by Literature Review. Verification of these hypotheses on the data of different countries was carried out by a different set of macroeconomic and specific financial indicators. Our research is based on the system of indicators described in work [7], but we will make a number of significant corrections to this system. So, in particular:

- to test the hypothesis that an increase in the share of state bank capital contributes to increasing the level of political engagement of the financial and credit policies of banks, in addition to the indicator "the ratio of loans to the public sector to GDP", it is also proposed to use the indicator "the share of government bonds in the securities portfolio of banks";
- to test the hypothesis that an increase in the share of state banking capital positively influences the level of confidence in the banking sector, instead of the indicator "the ratio of demand deposits to long-term savings deposits", it is proposed to use the indicator "the ratio of demand deposits to time deposits";
- to test the hypothesis that the increase in the share of state bank capital is a catalyst for the decline in the quality of credit portfolios of commercial banks, it is proposed to additionally introduce one more indicator – "the percentage of the implementation of the formation of a reserve for active operations";
- to test the hypothesis that an increase in the share of state banking capital influences the country's economic growth rates and economic development indicators, in addition to the indicators real GDP growth dynamics, GDP per capita, investment level in fixed capital, industrial production index, it is also proposed to use indicators as inflation index, export of goods and services, import of goods and services, ratio of loans of non-financial corporations to GDP.

Thus, with these adjustments, the system of indicators that we will select to test the validity of the hypotheses about the effect of increasing the share of state bank capital on the development of the financial sector and the economy as a whole is shown in Table 1 (see in Appendix).

In the most recent studies, the share of state participation in the banking system was measured by capital, while we propose to measure it by assets. Such an approach will allow adequately to take into account the real possibilities of the state to control the assets of banks.

First, it is the level of assets, and not the level of capital, that is the determining indicator of the place of a particular bank, that it occupies in the banking system. In some countries, among the requirements set by central banks for

banks is the mandatory requirement to maintain a clear quantitative balance of assets and capital. In such a situation, measuring the level of state presence in the banking system by the level of state capital invested in banks has an economic content. In this case, the share of capital and the share of assets fully coincide. But recently, most of the countries of the world regulating banking activities in the normative and legal field have only required the adequacy of capital. Thus, the bank is obliged to increase its capital only if the quality of assets deteriorates.

Secondly, the government's participation in the bank's authorized capital of 50% + 1 share actually ensures full control of the state over the assets of this bank, therefore, the indicators of state participation in the activities of such a bank, measured by assets and capital, will differ significantly.

Thirdly, in the banks with the provisional administration, the state receives the right to complete and exclusive management of them. Therefore, although formally the share of capital of these banks does not become state property, its control over the assets of these banks becomes complete.

Thus, as an indicator that characterizes the level of state participation in the banking system, we will continue in this article SSABS indicator – the state's share in the assets of the banking system, which is proposed to be calculated as follows:

$$SSABS = \frac{\sum_1^I (A_i^{sob} - R_i^{sob}) + \sum_1^J (A_j^{bcss} - R_j^{bcss}) + \sum_1^T (A_t^{bsp} - R_t^{bsp}) + SSBC_t + \sum_1^K (A_k^{bia} - R_k^{bia})}{A_{bs} - R_{bs}} \quad (1)$$

where  $A_i^{sob}, R_i^{sob}$  – respectively, the assets and reserves of the i-th state bank (except for the NBU);  $A_j^{bcss}, R_j^{bcss}$  – accordingly, the assets and reserves of the j-th bank with state participation in the capital of which the state's share is more than 50%;  $A_t^{bsp}, R_t^{bsp}$  – accordingly, the assets and reserves of the t-th bank with state participation in the capital of which a significant state participation is less than 50%;  $A_k^{bia}, R_k^{bia}$  – accordingly, the assets and reserves of the k-th bank, in which the temporary administration was introduced;  $SSBC_t$  – the share of the state in the authorized capital of banks, where it is less than 50%;  $I$  – number of state banks;  $J, T$  – accordingly, the number of banks with state participation in the capital of which a significant state participation is more than and less than 50%;  $K$  – number of banks in which temporary administration is introduced;  $A_{bs}, R_{bs}$  – respectively, aggregate assets and aggregate reserves of banks.

It should be noted that this indicator, in addition to its main task, also fulfills, in our opinion, an important secondary task. Note that one of the biggest drawbacks of those models that have been used by various authors to test hypotheses about the influence of state capital on the development of the financial sector and the national economy is the neglect of the fact that there is a cyclical development of the banking system. Thus, in particular, in most scientific studies the period is estimated to contain crisis years, significantly distorts the adequacy of the estimates obtained. Based on this, the simulation results look excessively averaged.

In our opinion, it is necessary to conduct separate studies on the pre-crisis or post-crisis period and during the crisis.

So far, no empirical research has been carried out for Ukraine to test the validity of the hypotheses about the influence of increasing the share of state bank capital on the development of the financial sector and the national economy. At the same time, the consequences of the global financial crisis of 2008-2009. Give the opportunity to explore it. It is this scientific task that we set ourselves in this article. In order to fully follow the consequences of the 2008-2009 crisis, we continued the analysis period for another 3 years, that is, until 2011. To ensure the adequacy of calculations, the total range of analysis was 10 years (2002-2011).

In order to neutralize the impact of the global financial crisis on the results of our calculations, that is, to separate the growth in the share of state participation in the banking system as a result of the nationalization of problem banks, we will further analyze the impact of state presence in the banking system of Ukraine on the development of the financial sector and the national economy for two variants (time intervals):

- option I – the period 2002-2008 – for the whole period, without taking into account the processes of nationalization of problem banks of PJSC Rodovid Bank, Joint Stock Commercial Bank Kyiv and OJSC JSB Ukr-gasbank;

- option II – the period 2002-2011 – for the whole period, that is, taking into account the forced growth in the number of banks with state participation as a means of anti-crisis stabilization of the banking system of Ukraine.

Indicators  $K_1$  and  $K_2$ , which were calculated by us and presented in Table 2, are the coefficients of the correlation between the relevant indicator and the banking system for the period 2002-2008 and for the period 2002-2011, respectively.

## Results

The results of the calculation of the SSABS proposed by us are shown in Figure 1 (see in Appendix). As can be seen from Figure 1, the dynamics of the SSABS indicator clearly reproduces the dynamics of economic processes that took place in the corresponding period in Ukraine: in 2002 – economic downturn; 2004-2005 – positive dynamics of economic development; mid-2008 – the deployment of the global financial and economic crisis. At the same time, it should be noted that such a rapid increase in the state presence in the banking system is explained, in our opinion, by significant investments in the process of nationalization of the three banks (PJSC Rodovid Bank, Joint Stock Commercial Bank Kyiv and OJSC JSB Ukrgasbank), Which in fact were transformed into cells for unlimited consumption of public financial resources.

Table 3 presents general conclusions regarding the fairness of the hypotheses about the influence of increasing the state's share in the assets of the banking system on the development of the Ukrainian economy.

A fragment of the results for linear regression dependencies is presented in Table 3, where the following symbols are accepted:

$K_1, K_2$  – coefficients of correlation;  $k$  – coefficient with an independent variable (the share of assets of state banks in the assets of the banking system);  $R^2$  – coefficient of determination;  $F$ -st. –  $F$ -statistics (table value – 5.32);  $t$ -st. –  $t$ -statistics (table value – 2.31); “1” – An adequate regression dependence is constructed, which confirms the hypothesis advanced; “0” – no adequate regression dependence has been built, therefore the hypothesis put forward remains unconfirmed.

The standard error of the coefficient is given in parentheses. Data for  $k$ ,  $R^2$ ,  $F$ -st.,  $T$ -st. are presented for the period 2002-2011. The general conclusion that can be drawn from the results of the generalization of the data presented in Table 3, is as follows: with the current format, the existence of banks with state participation for the economic development of Ukraine is inappropriate to increase the state's share in the assets of the banking system. The fifth and sixth hypotheses, which we confirmed in this study, indicate that with the growth of the state's share in the assets of the banking system, the degree of politicization of the economy increases through an increase in lending to the public sector and operations to purchase domestic government loans, and the quality of credit portfolio of domestic banks. Thus, in the general context, these two hypotheses only confirm the conclusion about the negative impact of increasing state participation in the banking system on economic development.

## Conclusions and discussion

In economic science, there is still no unity in understanding the essence and criteria for identifying state banks and banks with state participation, as well as the boundaries of the expediency of state participation in the banking system. When determining the state banks, one should proceed not only from the share of the state in their authorized capital (it should be 100%), the level of its control over their activities and their subordination, but also take into account that the purpose of their functioning should not be to obtain profit, But the performance of the functions of financial agents of the government in the implementation of socio-economic development programs. Banks with state participation include banks: 1) over assets of which public authorities / public sector enterprises directly or indirectly control; 2) the capital of which the state enters directly or indirectly on a permanent or temporary basis in different proportions and for various reasons.

The share of state participation in the banking system should be measured not by capital, but by assets, which will adequately take into account the real capacity of the state to control the assets of banks with state participation, in particular: when introducing temporary administrations in banks; With the participation of the state in the authorized capital of banks in excess of 50%; In the absence of requirements on the part of the regulator for observing a clear quantitative balance of banks' assets and capital.



Empirical calculations for Ukraine during the period of formation of prerequisites and realization of the consequences of the global financial crisis have shown the following. The state's share in the aggregate capital of the banking system of Ukraine was quite insignificant before the financial crisis (on average it was 6.08%), whereas after the crisis it grew more than 3 times. This is due to the nationalization and the introduction of temporary administrations in individual banks. Only two banks in Ukraine are considered state in accordance with the legislation and in four more, the state's participation is close to 100%.

For today, there is no objective need for the existence of state-owned banks in the format in which they are now due to the fact that they have actually become ordinary commercial banks and do not perform their functions in the economy (preferential lending to strategically important sectors, the implementation of national development programs, Financial support of the domestic commodity producer, countercyclical regulation of credit activity, reduction of transaction costs in the financial market, etc.).

The increase in the share of state bank capital in Ukraine negatively affects the quality and depth of financial intermediation, the level of public confidence in banks, leads to an increase in transaction costs and the level of politicization of the banking sector, to a decrease in the quality of banks' credit portfolios, does not affect private lending and economic Growth of the country. This confirms the negative impact of the current model of functioning of banks with state participation in the development of the banking system and the economy as a whole.

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Appendix

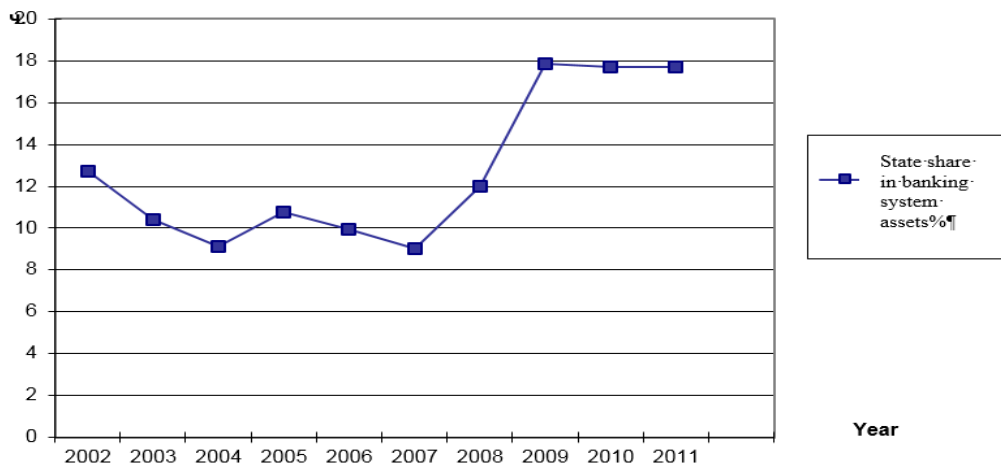


Figure 1. Dynamics of the SSABS indicator for Ukraine for the period of the formation of prerequisites and implementation of the consequences of the financial crisis (2002-2011)

Table 1. The system of indicators for testing hypotheses about the influence of banks with state participation on the development of the financial sector and the economy as a whole

Ser. No.	Hypothesis	Resulting indicators
1	Increasing the share of state bank capital has a positive impact on the quality and depth of financial intermediation	Ratio of total assets of banks to GDP
		Ratio of aggregate bank loans to GDP
		Ratio of total bank deposits to GDP
2	The increase in the share of state banking capital has a positive effect on the level of confidence in the banking sector	The ratio of demand deposits to time deposits
		The ratio of cash outside banks and transferable deposits to money supply (M1/M3)
		The ratio of money supply and monetary base
3	Increasing the share of state bank capital is the basis for reducing transaction costs	Net interest margin
4	The increase in the share of state bank capital influences the policy of banks on lending to the private sector	The ratio of loans to the private sector to GDP
		The ratio of consumer loans to total assets
5	Increasing the share of state banking capital helps to increase the level of politicization of the banking sector	Ratio of loans to the public sector to GDP
		The share of domestic government loan bonds in the securities portfolio of banks
6	The increase in the share of state bank capital is a catalyst for the decline in the quality of credit portfolios of commercial banks	Ratio of problem loans to assets
		The ratio of reserves for problem loans with total assets
		Percentage of the implementation of the provision for active operations
7	The increase in the share of state banking capital influences the country's economic growth rates and economic development indicators	Real GDP growth dynamics
		GDP per capita
		Level of investment in fixed assets
		Index of industrial production
		Inflation index
		Export of goods and services
		Import of goods and services
		The ratio of loans to non-financial corporations to GDP

Table 2. Results of calculation of indicators and correlation coefficients for testing hypotheses on the influence of banks with state participation on the development of the financial sector and the economy of Ukraine

#	Indicators for testing the corresponding hypothesis	Years										Correlation coefficient	
		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	$K_1$	$K_2$
	<b>1 hypothesis - Financial depth</b>												
1	Assets / GDP	0.300	0.395	0.410	0.505	0.649	0.859	1.027	1.097	1.007	0.922	-0.076	0.622
2	Loans / GDP	0.187	0.254	0.257	0.325	0.451	0.592	0.774	0.792	0.677	0.610	-0.016	0.580
3	Deposits / GDP	0.175	0.234	0.245	0.305	0.342	0.394	0.379	0.367	0.385	0.374	-0.342	0.379
	<b>2 hypothesis - Trust in the BS</b>												
4	Deposits on demand / Term deposits	0.916	0.760	0.761	0.602	0.507	0.490	0.427	0.557	0.577	0.552	0.263	-0.151
5	M1/M3	0.627	0.563	0.535	0.510	0.475	0.464	0.439	0.482	0.486	0.456	0.360	-0.229
6	Money supply / Money base	2.114	2.378	2.338	2.345	2.685	2.792	2.763	2.499	2.649	2.858	-0.366	0.237
	<b>3 hypothesis - Reduction of transaction costs</b>												
7	Net interest margin	6	5.78	4.9	4.9	5.3	5.03	5.3	6.21	5.79	5.34	0.648	0.617
	<b>4 hypothesis - Credit activity of households</b>												
8	Share of consumer loans in assets	0.048	0.084	0.103	0.149	0.166	0.186	0.191	0.137	0.113	0.104	-0.317	-0.238
9	Ratio of household loans to GDP	0.016	0.037	0.047	0.081	0.151	0.223	0.296	0.264	0.194	0.153	-0.040	0.375
	<b>5 hypothesis – Political engagement of banking sector</b>												
10	Credit of the state sector to GDP	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.008	0.006	0.629	0.951
11	Share of domestic government loans in the portfolio banks	0.717	0.519	0.476	0.455	0.477	0.411	0.619	0.695	0.843	0.799	0.908	0.940
	<b>6 hypothesis - Quality of bank assets</b>												
12	Share of problem loans	0.050	0.037	0.035	0.024	0.018	0.015	0.025	0.097	0.116	0.100	0.537	0.951
13	Reserves for active operations in assets	0.058	0.051	0.051	0.044	0.038	0.033	0.050	0.122	0.137	0.130	0.654	0.967
14	Percent of reserve formation	98.2	99.7	100.5	100.9	100.1	100.04	100.1	100.05	100.01	100.00	-0.60	-0.13
	<b>7 hypothesis - Indicators of economic development</b>												
15	GDP growth rate	105.1	108	115.1	124.5	114.8	122.7	128.6	113	113.8	121.3	-0.142	-0.103
16	GDP per capita	4685	5591	7273	9372	11630	15496	20495	19832	23600	28775	-0.025	0.738
17	Index of industrial production	107	115.8	112.5	103.1	106.2	107.6	94.8	78.1	111.2	107.6	-0.504	-0.419
18	Inflation index (consumer price index)	99.4	108.2	112.3	110.3	111.6	116.6	122.3	112.3	109.1	104.6	-0.321	-0.301
19	Export of goods and services, bln. USA	22.01	27.32	37.98	40.42	45.87	89.8	78.69	49.22	63.06	82.1	0.369	0.615
20	Import of goods and services, bln. USA	18.5	24.4	31	39.05	48.84	48.7	92.18	50.6	66.18	88.85	0.404	0.595
21	The ratio of loans to non-financial corporations to GDP	0.17	0.21	0.201	0.241	0.30	0.36	0.47	0.51	0.461	0.44	0.01	0.69
22	Investments in fixed assets	23629	32573	37178	51011	75714	93096	125254	188486	233081	151777	-0.03	0.82



Table 3. Results of correlation-regression analysis on the influence of increasing the state's share in the assets of the banking system on the development of the Ukrainian economy

Hypothesis on increasing the share of state bank capital	Indicators	$K_1$	$K_2$	$K^*$	$R^2$	$F$ -st.	$t$ -st.	Result	
Has a positive impact on the quality and depth of financial intermediation	Ratio of total assets of banks to GDP	-0.08	0.62	7.58 (3.37)	0.39	46.39	2.25	0	Not confirmed
	Ratio of aggregate bank loans to GDP	-0.02	0.58	0.04 (0.02)	0.34	4.06	2.01	0	
	Ratio of total bank deposits to GDP	-0.34	0.38	0.01 (0.01)	0.14	1.34	1.16	0	
Has a positive impact on the level of confidence in the banking sector	The ratio of demand deposits to time deposits	0.26	-0.15	0.99 (0.02)	0.02	0.12	44.15	0	Not confirmed
	The ratio of monetary resources and the amount of money and quasi-money in the economy (M1 / M3)	0.36	-0.23	-0.00 (0.01)	0.05	0.44	-0.67	0	
	The ratio of money supply to monetary base	-0.37	0.24	0.02 (0.02)	0.06	0.48	0.69	0	
Is the basis for reducing transaction costs	Net interest margin	0.65	0.62	1.01 (0.01)	0.38	4.96	157.46	-1	Disproved
Helps increase the level of politicization of the banking sector	Ratio of loans to the public sector to GDP	0.63	0.95	0.00 (0.00)	0.90	76.08	8.72	+1	Confirmed
	The share of domestic government loans in the securities portfolio of banks	0.91	0.94	0.04 (0.01)	0.83	38.52	6.21	+1	
Influences private lending volumes	The ratio of consumer loans to total assets of banks	-0.32	-0.24	-0.00 (0.00)	0.06	0.48	-0.69	0	Not confirmed
	The ratio of loans to the private sector to GDP	-0.04	0.38	0.01 (0.01)	0.14	1.31	1.15	0	
There is a catalyst for reducing the quality of loan portfolios of commercial banks	The ratio of problem loans to the assets of banks	0.54	0.95	0.01 (0.00)	0.91	76.35	8.74	+1	Confirmed
	The ratio of provisions for problem loans for total assets of banks	0.65	0.97	0.01 (0.00)	0.93	113.76	10.67	+1	
	Percent of reserve formation implementation	-0.79	-0.79	-0.03 (0.07)	0.02	0.14	-0.37	0	
Influences the country's economic growth and economic development indicators	GDP growth rate	-0.14	-0.10	-0.21 (0.72)	0.01	0.09	-0.29	0	Confirmed partially
	GDP per capita	-0.03	0.74	1671.57 (540.30)	0.54	9.57	3.09	+1	
	Index of industrial production	-0.50	-0.42	-1.24 (0.95)	0.18	1.70	-1.30	0	
	Inflation Index (Consumer Price Index)	-0.32	-0.30	-0.51 (0.58)	0.09	0.80	-0.89	0	
	Export of goods and services	0.37	0.62	4001.31 (1812.14)	0.38	4.88	2.21	0	
	Import of goods and services	0.40	0.60	4738.46 (2262.28)	0.35	4.39	2.09	0	
	The ratio of loans of non-financial corporations to GDP	0.69	0.01	0.02 (0.01)	0.48	7.36	2.71	+1	
Investments in fixed assets	0.82	-0.03	16085.74 (3987.69)	0.67	16.27	4.03	+1		