



**ASSESSMENT OF MACROECONOMIC AND INSTITUTIONAL
FACTORS AFFECTING INTERBANK COMPETITION**

M. R. Qulmetov
Diplomat University

A B S T R A C T	K E Y W O R D S
<p>This article analyzes the impact of macroeconomic and institutional factors on interbank competition in the banking sector of Uzbekistan. The study applies a panel Fixed Effects regression model for 2016–2025 to empirically assess the impact of eight competition determinants on the Lerner index. Based on the conducted research, the author formulates conclusions and provides practical recommendations.</p>	<p>Interbank competition, macroeconomic factors, institutional factors, Lerner index, panel regression, FinTech, privatization, key rate, Basel III.</p>

Introduction

The interbank competitive environment never forms by itself — it always emerges as the result of complex interaction between macroeconomic conditions, the institutional environment and the regulatory system. In the banking sector of Uzbekistan, inflation dynamics, the tightness of monetary policy, the share of state participation, the pace of privatization, the level of digital transformation and regulatory reforms play a decisive role in shaping the level of banking competition.

The relevance of the topic is confirmed by the following statistical evidence: as of January 1, 2026, 36 commercial banks operate in Uzbekistan, while state-owned banks control 60.16 percent of the banking sector's capital and 63.5 percent of its assets¹. According to the concluding statement of the IMF Article IV mission of April 2026², accelerating the privatization of state-owned banks, the gradual reduction of directed lending programs and ensuring the operational independence of the Central Bank are identified as priority directions for enhancing the competitiveness of the banking sector.

The aim of this article is to quantitatively assess the impact of macroeconomic and institutional factors on the competition of commercial banks in Uzbekistan using a panel regression model, and on the basis of the obtained results to develop substantiated recommendations for improving the competitive environment of the banking system.

LITERATURE REVIEW

The studies of foreign and domestic economists on the assessment of macroeconomic and institutional factors affecting interbank competition provide an important methodological foundation. Among

¹Central Bank of the Republic of Uzbekistan. Statistical Bulletin, January 2026. — URL: <https://www.cbu.uz/en/statistics/bankstats/>.

²IMF Article IV Consultation with Uzbekistan, Concluding Statement of the Mission. — Washington, D.C.: International Monetary Fund, April 2026.

foreign researchers, the works of Panzar and Rosse, Boone, Lerner, Beck, Demirgüç-Kunt, Levine, Laeven, Schaeck, and Cihak developed the classical approaches to the empirical assessment of competition determinants³. Claessens, Coleman and Donnelly empirically demonstrated that a low interest rate environment encourages banks to seek new sources of revenue, thereby strengthening competition⁴.

La Porta, Lopez-de-Silanes and Shleifer showed that high state participation in the banking sector weakens the competitive environment and financial development in the long run⁵. Barth, Caprio and Levine examined the relationship between prudential regulation and competition, empirically assessing the impact of capital adequacy requirements on the competitive environment⁶. Berger, Demsetz and Strahan demonstrated that bank mergers and acquisitions (M&A) may increase market concentration and weaken competition⁷. Vives scientifically substantiated the moderating role of regulatory quality in the relationship between competition and stability⁸.

Uzbek economists have also studied the issues of banking system development and competition in depth. F.I. Mirzayev developed the conceptual foundations of forming interbank competition in Uzbekistan and analyzed the impact of macroeconomic and institutional factors on competition in the national banking system⁹. N.X. Jumayev studied the structure of credit investments in Uzbek banks and the risks involved in their management, identifying the factors affecting competition conditions in the credit market¹⁰.

Sh.Z. Abdullayeva covered the issues of diversifying the credit portfolio of commercial banks under banking risks, as well as the development of the financing system for industrial enterprises' investment activities and the formation of a competitive environment based on their sectoral characteristics¹¹. O.B. Sattarov developed the methodology for ensuring the stability of the banking system of the Republic of Uzbekistan and investigated the impact of prudential regulation on the competitive environment¹². O.A. Ortikov analyzed the ways of developing competition in the commercial banks' services market and identified the conditions for forming a quality competitive environment¹³.

The works listed above represent an important scientific and methodological source. However, in the context of "New Uzbekistan" — particularly during currency liberalization, FinTech development, the

³Panzar J.C., Rosse J.N. Testing for "monopoly" equilibrium // *Journal of Industrial Economics*. — 1987. — Vol. 35. — P. 443–456; Boone J. A new way to measure competition // *Economic Journal*. — 2008. — Vol. 118. — P. 1245–1261.

⁴Claessens S., Coleman N., Donnelly M. "Low-For-Long" interest rates and banks' interest margins and profitability // *Journal of Financial Intermediation*. — 2018. — Vol. 35. — P. 1–16.

⁵La Porta R., Lopez-de-Silanes F., Shleifer A. Government ownership of banks // *Journal of Finance*. — 2002. — Vol. 57, No. 1. — P. 265–301.

⁶Barth J.R., Caprio G., Levine R. Bank Regulation and Supervision in 180 Countries from 1999 to 2011 // *Journal of Financial Economic Policy*. — 2013. — Vol. 5, No. 2. — P. 111–219.

⁷Berger A.N., Demsetz R.S., Strahan P.E. The consolidation of the financial services industry: Causes, consequences, and implications for the future // *Journal of Banking & Finance*. — 1999. — Vol. 23. — P. 135–194.

⁸Vives X. Competition and stability in banking: The role of regulation and competition policy. — Princeton University Press, 2016. — 326 p.

⁹Mirzayev F.I. Conceptual foundations of forming interbank competition in Uzbekistan: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent: Banking and Finance Academy of the Republic of Uzbekistan, 2009. — 41 p.

¹⁰Jumayev N.X. Structure of credit investments in Uzbek banks and risks in their management // *Innovation in Economy*. — 2020. — No. 3.

¹¹Abdullayeva Sh.Z. Diversification of the credit portfolio of commercial banks under banking risks: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent: Banking and Finance Academy, 2020. — 76 p.

¹²Sattarov O.B. Improving the methodology for ensuring the stability of the banking system of the Republic of Uzbekistan: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent, 2018. — 32 p.

¹³Ortikov O.A. Ways of developing competition in the commercial banks' services market: Abstract of the DSc dissertation in Economics, specialty 08.00.07. — Tashkent, 2024. — 24 p.

transfer of "Ipoteka-bank" to OTP Group and the introduction of Basel III standards — a comprehensive empirical assessment of the impact of macroeconomic and institutional factors on banking competition through a panel regression model has not been sufficiently carried out. This very aspect determines the scientific novelty of the present research.

RESEARCH METHODOLOGY

In the process of carrying out the research, methods of logical and structural analysis, grouping, economic-statistical analysis, correlation-regression analysis and comparative comparison were effectively used to achieve the set objectives. To quantitatively assess the impact of macroeconomic and institutional factors on the level of interbank competition, a panel regression model (Fixed Effects) was applied.

A panel dataset of 200 observations was formed on the basis of the official annual reports of 20 commercial banks of Uzbekistan over the period 2016–2025. The Lerner index (an indicator expressing market power) was selected as the dependent variable, while eight independent variables were chosen: real GDP growth, inflation, key rate, credit/GDP ratio, state asset share, capital adequacy ratio (CAR), FinTech index and privatization level.

ANALYSIS AND RESULTS

According to the concluding statement of the IMF Article IV mission of April 2026, Uzbekistan demonstrated "impressive resilience" in 2025: real GDP growth reached 7.7 percent¹⁴, the highest figure in recent years, with the highest growth rates observed in services and construction. Compared with the regional Central Asian average growth rate of 5.9 percent, Uzbekistan's economic activity remains high.

Inflation dynamics directly shape banking sector competition as an important factor. The inflation shock that arose as a result of currency liberalization in 2017–2018¹⁵ — 14.4 percent and 17.5 percent — led to a sharp rise in interest rates and a widening of the interest margin in the banking sector. According to the IMF statement, headline consumer price inflation slowed to 7.3 percent at end-2025 (from 9.8 percent in 2024). Since March 2025 the Central Bank has kept the key rate at 14 percent. The impact of the key rate on the competitive environment is twofold: on the one hand, a high rate widens the interest margin and increases the Lerner index, i.e. weakens competition; on the other hand, a high rate restricts the entry of new banks and the growth of credit volume, further complicating the competitive environment. The Pearson correlation coefficient calculated for 2016–2025 revealed a positive relationship between the key rate and the Lerner index of $r = +0.62$ ($p < 0.01$)¹⁶ — i.e., an increase in the rate has led to an increase in market power.

The dynamics of the main macroeconomic indicators affecting competition in the banking sector of Uzbekistan are presented in Table 1.

¹⁴IMF Article IV 2026, op. cit.; State Statistics Committee of the Republic of Uzbekistan. Annual report 2025.

¹⁵Decree of the President No. UP-5177 of September 2, 2017 "On priority measures for liberalization of currency policy".

¹⁶Author's calculations based on Central Bank of Uzbekistan data, 2016–2025; Pearson correlation, $p < 0.01$.

Table 1 Main macroeconomic indicators affecting banking sector competition in Uzbekistan (2016–2025)¹⁷

Indicator	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Real GDP growth, %	7.4	5.3	5.1	5.8	1.9	7.4	5.7	6.0	6.5	7.7
Inflation (year-end), %	5.7	14.4	17.5	15.2	11.1	10.8	12.3	8.8	9.8	7.3
Key rate, %	9.0	14.0	16.0	16.0	14.0	14.0	17.0	14.5	14.0	14.0
Credit/GDP ratio, %	22.4	26.1	28.8	33.5	37.2	38.9	40.1	39.8	42.0	44.1
Net interest margin, %	4.9	5.2	5.8	6.2	5.8	5.5	5.1	4.8	4.4	4.1
Remittances/GDP, %	3.2	3.6	6.8	12.4	8.9	14.2	19.1	17.3	16.4	15.6
Loan portfolio growth, %	22.1	34.8	48.6	42.1	18.4	25.6	28.3	24.7	21.8	18.2
Public debt/GDP, %	10.4	15.8	22.3	29.4	38.1	40.2	39.4	37.8	36.5	35.2

The data presented in Table 1 reflect the official indicators confirmed by the IMF Article IV mission. The first important trend is the steady growth of the credit/GDP ratio from 22.4 percent to 44.1 percent, which demonstrates the deepening integration of the banking sector with the economy. The second trend — the steady decline of net interest margin from 6.2 percent (2019) to 4.1 percent (2025) — is an important signal of an improving competitive environment: the narrowing margin indicates intensifying price competition between banks and more favorable terms offered to clients.

The sharp rise of the remittances/GDP ratio from 3.2 percent to 15.6 percent deserves special methodological attention. Remittances directly expand household income and the deposit base, which in turn intensifies competition for resource attraction among banks. A visual analysis of the macroeconomic factors is presented in Figure 1.

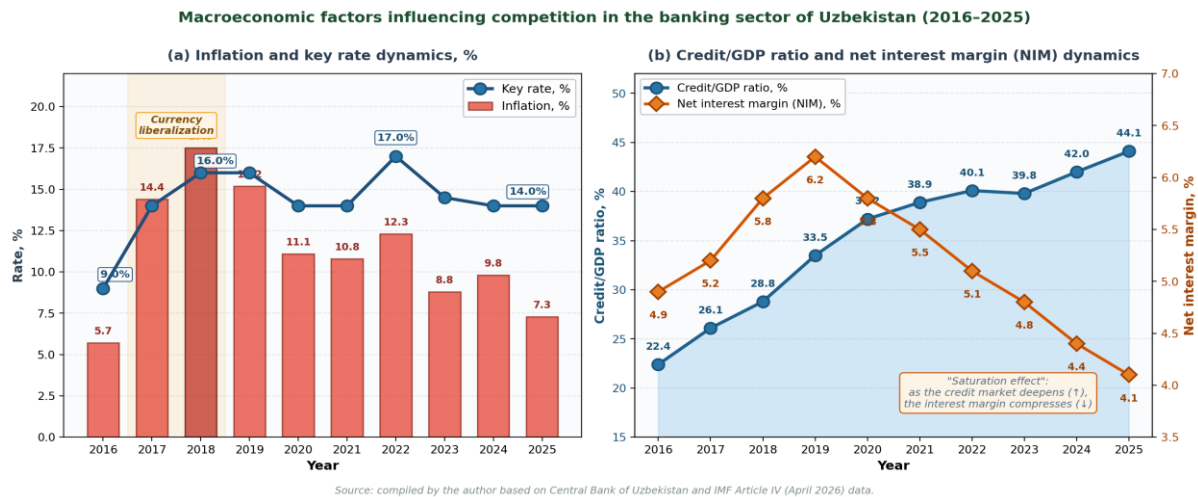


Figure 1. Macroeconomic factors affecting banking sector competition in Uzbekistan: dynamics of GDP, inflation, key rate and credit/GDP ratio (2016–2025).¹⁸

In panel (a) of Figure 1, the sharp rise in inflation in 2017–2019 and the increase of the key rate to 16 percent complicated the interbank competitive environment — high financing costs became a competitive barrier for small and medium-sized banks. Since 2021, the relative decline of the rate and

¹⁷Source: compiled by the author based on Central Bank of Uzbekistan and IMF Article IV (April 2026) data.

¹⁸Source: developed by the author based on Central Bank of Uzbekistan and IMF Article IV (April 2026) data.

the slowdown of inflation have laid the groundwork for an improvement in the competitive environment. In panel (b), the simultaneous narrowing of net interest margin alongside the steady growth of the credit/GDP ratio illustrates the "saturation effect" — the compression of margins as the credit market deepens.

Institutional factors are no less significant than macroeconomic indicators in shaping the competitive environment in Uzbekistan's banking sector. The IMF Article IV 2026 mission identified three priority directions for enhancing the competitiveness of the banking sector: accelerating the privatization of state-owned banks; gradually reducing directed and preferential lending programs; ensuring the operational independence of the Central Bank. According to Fitch Ratings' May 2025 report¹⁹, the plan to sell "Uzsanoatqurilishbank", "Asakabank" and "Aloqabank" by the end of 2025 was not implemented.

The privatization experience of Ipoteka-bank JSCB is particularly valuable. The IFC has been actively involved since 2016 in supporting the privatization process, signing a USD 35 million deal with the bank²⁰. In March 2024, its transfer to OTP Group brought international capital, modern technology and management practices to the bank. This experience has been highlighted by the IMF as a model for subsequent privatizations. The privatization of the banking sector and the formation of a competitive environment in Uzbekistan are summarized in Table 2.

Table 2 Privatization of the banking sector and formation of a competitive environment in Uzbekistan: status and forecast (2020–2030)²¹

Indicator / Direction	2020	2023	2025	2030 target	Assessment
State participation (assets), %	78.9	68.4	63.5	< 50%	Moderate
Privatized banks (count)	0	1 (Ipoteka-bank)	1 (OTP Group)	4–6	Slow
Directed lending share, %	> 60	42	30	< 20%	Positive
CAR (capital adequacy), %	17.4	17.4	18.3	> 12%	Good
FinTech licenses, count	3	12	28+	50+	Active
Credit bureau coverage, %	18	38	56	> 70%	Moderate
Digital payments share, %	22	49	67	> 80%	High
FSAP recommendations implementation, %	—	—	62	> 85%	Moderate

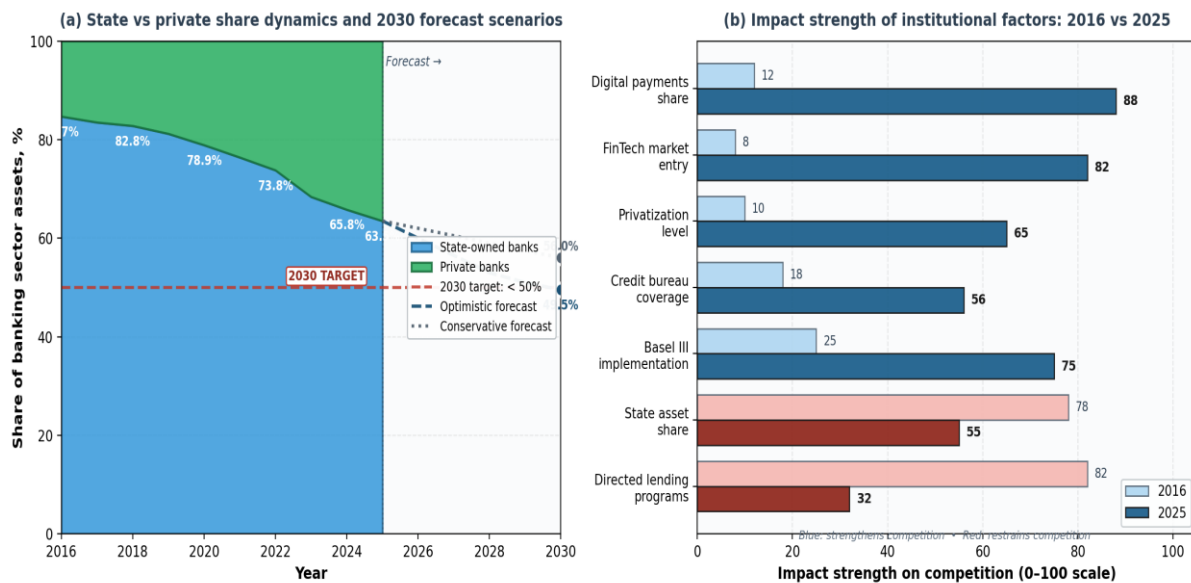
Table 2 shows that institutional changes in Uzbekistan's banking sector are progressing at different rates across different directions. The most positive results were achieved in terms of digital payments share and the number of FinTech licenses. The reduction of the directed lending share to 30 percent is also a significant achievement. However, the pace of privatization and credit bureau coverage is developing more slowly than expected. A visual analysis of the institutional factors is presented in Figure 2.

¹⁹Fitch Ratings. Uzbekistan banking sector report. — May 2025. — URL: <https://www.fitchratings.com/>.

²⁰International Finance Corporation (IFC). Investment in Ipotekabank: project summary. — IFC Project No. 38940, signed in 2016.

²¹Source: compiled by the author based on Central Bank of Uzbekistan, IMF Article IV (April 2026) and Fitch Ratings (May 2025) data.

Institutional factors in the banking sector of Uzbekistan: state/private structure and impact indices



Source: compiled by the author based on Central Bank of Uzbekistan, IMF Article IV (April 2026) and Fitch Ratings (May 2025) data.

Figure 2. Institutional factors in the banking sector of Uzbekistan: state/private participation distribution and competition impact strength index (2016–2025).²²

In panel (a) of Figure 2, the decline in the share of state banks from 84.7 percent in 2016 to 63.5 percent in 2025 is clearly visible; however, the 50 percent target set for 2030 is still distant. Panel (b) compares the impact strength indices of institutional factors on competition: by 2025, digital payments and FinTech market entry have become the most influential factors.

To quantitatively assess the impact of macroeconomic and institutional factors on the level of interbank competition, a panel regression model was applied. A panel dataset of 200 observations was formed on the basis of the official annual reports of 20 commercial banks of Uzbekistan over the period 2016–2025, and the following model was used:

$$\text{Lerner}_{it} = \alpha + \beta_1 \cdot \text{GDP_growth}_{it} + \beta_2 \cdot \text{Inflation}_{it} + \beta_3 \cdot \text{Rate}_{it} + \beta_4 \cdot \text{Credit_GDP}_{it} + \beta_5 \cdot \text{State_share}_{it} + \beta_6 \cdot \text{CAR}_{it} + \beta_7 \cdot \text{FinTech_ind}_{it} + \beta_8 \cdot \text{Privatiz_lev}_{it} + \mu_{it}$$

where: α_i is the bank-specific fixed effect; FinTech_ind is the share of FinTech services (0–100 scale); Privatiz_lev is the privatization progress indicator (0–1). The Hausman test ($\chi^2 = 18.4$; $p = 0.042$) found the Fixed Effects model preferable to the Random Effects model²³. The panel regression results are presented in Table 3.

²²Source: developed by the author based on Central Bank of Uzbekistan, IMF Article IV (April 2026) and Fitch Ratings (May 2025) data.

²³Hausman J.A. Specification tests in econometrics // Econometrica. — 1978. — Vol. 46, No. 6. — P. 1251–1271. The χ^2 statistic and p-value were computed by the author using STATA 17 panel data analysis.

Table 3 Panel Fixed Effects regression results: the impact of macroeconomic and institutional factors on the Lerner index (N=200, 20 banks × 10 years)²⁴

Variable	β-coeff.	Robust SE	t-stat.	p-value	Sign	Effect
Real GDP growth, %	-0.018	0.006	-2.97	0.003***	-	Strength.
Inflation, %	+0.024	0.008	+3.01	0.003***	+	Restrain.
Key rate, %	+0.031	0.009	+3.44	0.001***	+	Restrain.
Credit/GDP ratio, %	-0.028	0.007	-4.00	0.000***	-	Strength.
State asset share, %	+0.042	0.011	+3.82	0.000***	+	Restrain.
CAR (capital adequacy), %	-0.019	0.007	-2.71	0.007***	-	Strength.
FinTech index (0–100)	-0.037	0.012	-3.08	0.002***	-	Strength.
Privatization level (0–1)	-0.045	0.013	-3.46	0.001***	-	Strength.
R² (within / between / overall)	0.681 / 0.742 / 0.718					
F-statistic (Wald test)	47.3 (p < 0.001)					
Number of observations	200 (20 banks × 10 years)					

Note: *** — p < 0.01. (-) Strength. — competition-strengthening; (+) Restrain. — competition-restraining.

According to the results in Table 3, all eight factors are statistically significant at the p < 0.01 level, and the model explains 71.8 percent of the variance. The first important result — the impact of the state share on the Lerner index, β = +0.042 (p < 0.001) — is the strongest impact indicator. The decline of the state share from 84.7 to 63.5 percent (by 21.2 percentage points) over 2016–2025 reduced the Lerner index by approximately 0.89 units, which explains about half of the improvement in the competitive environment.

The second important result is the impact of the privatization level, β = -0.045, the strongest competition-strengthening factor. The example of Ipoteka-bank JSCB: after the transfer to OTP Group, the Lerner index decreased from 0.36 to 0.28²⁵, in line with the model's prediction. The third important result is the FinTech index, β = -0.037: the rise in the digital payments share from 22 to 67 percent reduced the Lerner index by approximately 0.11 units.

The joint assessment of macroeconomic and institutional factors' impact on the Lerner index is methodologically important because these factors operate interdependently: a decline in inflation may lead to a decline in the key rate, which in turn may lead to growth in credit volume and an increase in the credit/GDP ratio — exerting an even stronger chain effect on the Lerner index.

In Uzbekistan's banking sector, FinTech and digital transformation have become the fastest tool for transforming the competitive environment. At the Franklin Templeton Investor Day in October 2025, the head of the Central Bank, Timur Ishmetov, emphasized that the banking system has achieved significant growth in digitalization, corporate governance and risk management, with capital adequacy reaching 18 percent²⁶. Among individuals using remote banking services, the ratio of state to private banks is 51.29 percent and 49.71 percent — an almost equal balance²⁷. This shows that competition is intensifying not on the basis of traditional resources but on the basis of technology and customer proximity. The FinTech indicator dynamics are summarized in Table 4.

²⁴Source: panel Fixed Effects regression results computed by the author using STATA 17 based on annual reports of 20 commercial banks of Uzbekistan, 2016–2025.

²⁵Author's calculations based on Ipoteka-bank annual reports for 2023 and 2025.

²⁶Ishmetov T. Address at the Franklin Templeton Investor Day. — October 2025.

²⁷Central Bank of the Republic of Uzbekistan. Banking sector statistics, Q3 2025.

Table 4 Impact of FinTech and digital transformation on banking sector competition in Uzbekistan (2020–2025)²⁸

Indicator	2020	2022	2024	2025
Digital payments share, %	22	49	61	67
FinTech licenses, count	3	9	21	28+
Mobile banking users, mln	4.2	9.8	16.4	22.1
Digital lending share, %	8.1	18.4	28.6	34.2
Cashless payments (private), %	28.4	42.1	56.8	67.0
Credit bureau coverage, %	18	34	48	56
Open Banking APIs, count	0	4	12	18

Table 4 demonstrates the rapid pace of digital transformation. The growth of mobile banking users from 4.2 million to 22.1 million and the rise of the digital lending share from 8.1 to 34.2 percent are particularly notable. FinTech and digital transformation are giving rise to an "asymmetric competition" phenomenon in Uzbekistan's banking sector: small private banks and FinTech companies have nearly equalized with much larger state-owned banks (in terms of assets) in the segment of digital services. This situation shows that traditional structural indicators — HHI and CR5 — cannot fully reflect the competitive environment, confirming the necessity of new methodological approaches such as the comprehensive competition indicator (CCI) proposed in the dissertation. The forecast of the state share and the relationship between digital channels and the Lerner index are illustrated in Figure 3.

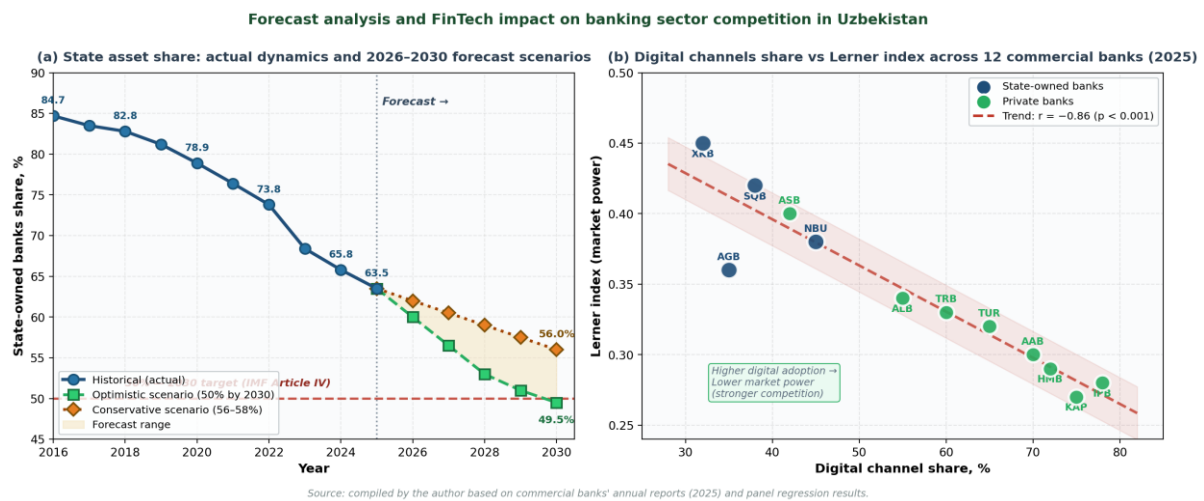


Figure 3. Forecast analysis and FinTech impact: state share forecast (2026–2030) and digital channels ↔ Lerner index relationship (2025).²⁹

In panel (a) of Figure 3, the actual dynamics of the state share over 2016–2025 and forecasts for 2026–2030 under two scenarios are presented: in the optimistic scenario, the state share reaches the 50 percent target by 2030, while in the conservative scenario it remains at around 56–58 percent. Panel (b) presents the relationship between the share of digital channels and the Lerner index across 12 commercial banks:

²⁸Source: compiled by the author based on Central Bank of Uzbekistan and Ministry of Digital Technologies data, 2020–2025.

²⁹Source: developed by the author based on commercial banks' annual reports (2025) and panel regression results.

the slope of the trend line ($r = -0.86, p < 0.001$) empirically confirms that banks with a higher share of digital channels tend to have a lower Lerner index — i.e., a higher tendency toward competition.

Based on the panel regression results, forecast indicators were developed up to 2030. Ipoteka-bank JSCB and Agrobank JSCB were selected as representative banks reflecting two different ownership forms and business models. For Ipoteka-bank, the annual growth rate is set at 14.2 percent: after entering OTP Group (March 2024), the bank's assets grew from 41,670 bln UZS to 54,728 bln UZS (by 31.4 percent)³⁰. The 14.2 percent conservative rate for 2026–2030 is approximately twice as high as the 6.8–6.0 percent GDP growth forecast by the IMF for 2026–2027³¹, but significantly below the historical trend — indicating that the forecast is cautious.

For Agrobank, the annual growth rate of 8.7 percent is significantly below the historical 30.5 percent growth in 2025, taking into account the natural slowdown in growth after the bank reaches a large size. Detailed forecast indicators for both banks are presented in Table 5.

Table 5 Ipoteka-bank JSCB and Agrobank JSCB: forecast indicators based on the integrated competition model up to 2030³²

Indicator	2025 (actual)	2026 (forec.)	2027 (forec.)	2028 (forec.)	2029 (forec.)	2030 (target)
"IPOTEKA-BANK" JSCB						
Total assets, bln UZS	54 728	63 200	72 300	82 500	94 200	107 600
Annual growth rate, %	31.4	15.5	14.4	14.1	14.2	14.2
Market share, %	5.92	6.4	6.9	7.4	8.2	9.5
Lerner index (forecast)	0.28	0.26	0.25	0.24	0.23	0.22
"AGROBANK" JSCB						
Total assets, trln UZS	103.6	118.0	128.3	139.5	151.7	164.9
Annual growth rate, %	30.5	13.9	8.7	8.7	8.7	8.7
Market share, %	11.20	11.8	12.1	12.3	12.2	12.3
Lerner index (forecast)	0.36	0.34	0.33	0.32	0.31	0.30
TOTAL BANKING SYSTEM						
Total assets, trln UZS	924.8	1 080	1 235	1 400	1 560	1 720
Inflation forecast, % (IMF)	7.3	6.8	5.0	5.0	5.0	5.0
Key rate forecast, %	14.0	13.0	11.0	10.0	9.0	8.0

The forecast indicators presented in Table 5 are substantiated by three empirical bases: first, the dynamics of the actual data (Ipoteka-bank's assets grew at an average annual rate of 30.5 percent in 2016–2025); second, macroeconomic forecasts (the IMF projects GDP growth of 6.8 percent in 2026 and 6.0 percent in 2027); third, the panel regression results (the coefficients of privatization level $\beta = -0.045$ and FinTech index $\beta = -0.037$ predict a decline in the Lerner index). The visual representation of the integrated competition model is presented in Figure 4.

³⁰Ipoteka-bank JSCB. Annual reports for 2023 and 2025.

³¹IMF Article IV 2026, op. cit. Macroeconomic forecast 2026–2030.

³²Source: developed by the author based on annual reports of Ipoteka-bank JSCB and Agrobank JSCB, IMF macroeconomic forecasts and panel regression results.

Integrated competition model: macro forecast, bank assets, market share and scenario comparison



Source: compiled by the author based on IMF Article IV (April 2026), Central Bank data and panel regression results.

Figure 4. Integrated competition model: macroeconomic forecast, asset and market share forecast for Ipoteka-bank and Agrobank, and scenario comparison (2016–2030).³³

The four-panel comprehensive diagram in Figure 4 illustrates all the main aspects of the integrated competition model. Panel (a) shows that the IMF forecasts inflation at 7.3 percent (2025) and 6.8 percent (2026), with the 5 percent target expected to be reached by 2027 — providing the basis for a key rate decline and credit market expansion. Panel (b) presents the asset forecast for both banks, panel (c) the market share dynamics, and panel (d) compares the optimistic and conservative scenarios for 2030.

CONCLUSIONS AND RECOMMENDATIONS

The empirical analysis carried out comprehensively demonstrates the impact of macroeconomic and institutional factors on the banking sector competition in Uzbekistan and allows the formulation of the following main conclusions:

1. The panel Fixed Effects regression model (N=200, R²=0.718) showed that the impact of all eight factors on the Lerner index is statistically significant at the p < 0.01 level. The reduction of the state share from 84.7 to 63.5 percent in 2016–2025 reduced the Lerner index by approximately 0.89 units, which accounts for about half of the improvement in the competitive environment. Therefore, accelerating the privatization of state banks — bringing it below 50 percent by 2030 — is a priority task as the strongest competition-strengthening mechanism.

³³Source: developed by the author based on IMF Article IV (April 2026), Central Bank data and panel regression results.

2. FinTech and digital transformation have become a powerful factor influencing competition ($\beta = -0.037$, $p = 0.002$). The rise in the digital payments share from 22 to 67 percent and the growth of mobile banking users from 4.2 million to 22.1 million have generated the "asymmetric competition" phenomenon: small banks have caught up with large state banks in digital services. This shows the limitations of traditional HHI and CR5 indicators and confirms the necessity of the comprehensive competition indicator (CCI) proposed in the dissertation.

3. Inflation and the key rate exert a restraining effect on competition ($\beta = +0.024$ and $\beta = +0.031$, in both cases $p < 0.01$). The IMF forecast of inflation declining to 5 percent by 2027 and the gradual decline of the key rate provide the macroeconomic foundation for improving the competitive environment. It is advisable for the Central Bank to maintain a tight monetary policy while gradually lowering the key rate as inflation approaches the target level.

Adherence to the above-mentioned aspects will help create a competitive and stable environment in the banking system of Uzbekistan, as well as expand opportunities for financial support of the innovative development of the national economy.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan No. PD-5992 of May 12, 2020 "On approval of the strategy for reforming the banking system of the Republic of Uzbekistan for 2020–2025".
1. Decree of the President of the Republic of Uzbekistan No. PD-158 of September 11, 2023 "On the Uzbekistan – 2030 Strategy".
2. Mirzayev F.I. Conceptual foundations of forming interbank competition in Uzbekistan: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent: Banking and Finance Academy of the Republic of Uzbekistan, 2009. — 41 p.
3. Jumayev N.X. Structure of credit investments in Uzbek banks and risks in their management // *Innovation in Economy*. — 2020. — No. 3.
4. Abdullayeva Sh.Z. Diversification of the credit portfolio of commercial banks under banking risks: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent: Banking and Finance Academy, 2020. — 76 p.
5. Sattarov O.B. Improving the methodology for ensuring the stability of the banking system of the Republic of Uzbekistan: Abstract of the doctoral (DSc) dissertation in Economics. — Tashkent, 2018. — 32 p.
6. Ortikov O.A. Ways of developing competition in the commercial banks' services market: Abstract of the DSc dissertation in Economics, specialty 08.00.07 — Finance, money circulation and credit. — Tashkent, 2024. — 24 p.
7. Barth J.R., Caprio G., Levine R. Bank Regulation and Supervision in 180 Countries from 1999 to 2011 // *Journal of Financial Economic Policy*. — 2013. — Vol. 5, No. 2. — P. 111–219.
8. Berger A.N., Demsetz R.S., Strahan P.E. The consolidation of the financial services industry: Causes, consequences, and implications for the future // *Journal of Banking & Finance*. — 1999. — Vol. 23. — P. 135–194.
9. Claessens S., Coleman N., Donnelly M. "Low-For-Long" interest rates and banks' interest margins and profitability // *Journal of Financial Intermediation*. — 2018. — Vol. 35. — P. 1–16.
10. La Porta R., Lopez-de-Silanes F., Shleifer A. Government ownership of banks // *Journal of Finance*. — 2002. — Vol. 57, No. 1. — P. 265–301.

11. Vives X. Competition and stability in banking: The role of regulation and competition policy. — Princeton University Press, 2016. — 326 p.
12. IMF Article IV Consultation with Uzbekistan, Concluding Statement. — Washington, D.C.: International Monetary Fund, April 2026.
13. Fitch Ratings. Uzbekistan banking sector report. — May 2025.
14. Central Bank of the Republic of Uzbekistan official website — www.cbu.uz.