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THE PLACE OF LIQUIDITY AND PROFITABILITY IN THE MANAGEMENT OF BANK RESOURCES AND THE OPTIMAL BALANCE BETWEEN THEM

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Abstract

This article analyzes the relationship between liquidity and profitability in the management of bank resources. Important aspects of ensuring the financial stability of the banking system, the effective use of resources, maintaining a balance between solvency and profit are considered. The article studies the main financial indicators of banking activities using the example of liquidity and profitability indicators and analyzes their impact on the decision-making process.

Keywords

bank resources, liquidity, profitability, financial stability, risk management, capital efficiency.

Introduction.

In our country, the banking system is considered a strategic pillar of the economy. The measures taken by banks to finance various sectors of the economy, effectively distribute monetary resources and organize payment circulation play an important role in ensuring national economic stability. In particular, finding the optimal balance between liquidity and profitability in the process of managing the resource base of commercial banks is one of the most pressing issues today.

In today's globalized and competitive environment, banks need to meet their obligations on time, ensure liquidity, and increase profits (profitability) . However, these two criteria often have opposite directions, and their optimal management at the same time is considered one of the main factors ensuring the efficiency of bank resources.

A number of scientific studies have been conducted in this direction by foreign and domestic scientists. In particular, classics such as JM Keynes, [1], F. Modigliani [2], H. Markovits [3] theoretically substantiated the balance between profit and risk in banking activities, while Uzbek researchers such as Shomurodov EL[4], Kuliyev NX [5] paid special attention to the ratio between liquidity and profitability in the management of bank resources. However, the existing literature does not sufficiently analyze the interaction of these two financial indicators and strategies for maintaining their balance in the management of bank resources.

The main purpose of this article is to analyze the role of liquidity and profitability criteria in managing bank resources, the impact of the balance between them on banking activities, both theoretically and practically. The article also analyzes the current situation using the example of the banking system of Uzbekistan and develops ways to improve it.

Analysis of literature on the topic.

Many economists and scientists have conducted research in various areas on the analysis of the efficiency of bank resources and their management. Their scientific work is aimed at increasing profitability through rational allocation of bank resources, ensuring financial stability and controlling risks. Below are the views of prominent scientists who have studied this topic in depth.

finance and banking, [6] outlined important theoretical foundations for the effective management of commercial banks' assets. He emphasizes the need to reduce risks, diversify assets, and ensure the stability of loan portfolios.

Saunders and Cornett [7], in their work, deeply analyzed the activities of financial institutions and put forward the principles of using innovative strategies and effective risk control in managing bank assets.

overview of risk analysis methods in commercial banks . Hull argues that in modern financial management, proper risk assessment and careful use of risk leads to more efficient management of bank assets.

Robert Merton [9] showed how to analyze assets and identify risks through the use of mathematical models in banking. He argues that banks should use an analytical approach to making investment decisions.

Eugene Fama explains that the price and profitability of bank assets can be analyzed based on market information through the “Efficient Market Hypothesis”. He argues that asset management in an efficient market environment directly affects bank profitability [10] .

the Modigliani-Miller theorem [2], developed by Merton H. Miller and Franco Modigliani , shows that banks can improve the efficiency of asset utilization by

optimizing their capital structure. They proved that a balance between capital and assets is important for minimizing risk and increasing profitability.

David H. Pyle, in his study "Bank Risk Management: Theory," took a deep approach to the theory of risk management in banks. He analyzed the intrinsic relationship between assets and liabilities and developed the scientific basis for effective management of bank assets [11].

and foreign research on the management of the financial potential of commercial banks plays an important role in the effective functioning of the banking system. Among Uzbek scientists, the monograph written by Omonov AA provides a detailed analysis of the theoretical foundations and practical mechanisms of bank resource management, highlighting important principles of bank management [12]. Also, the work authored by Abdullayeva Sh.Z., Koraliyev TM and Ortikov UD provides a comprehensive review of the formation of resources in commercial banks, methods of their use, and the importance of financial management [13]. The textbook prepared by Abdullayeva Sh.Z. and Omonov AA emphasizes practical issues along with the theoretical aspects of bank capital [14].

Among Russian specialists, the work "Bank Management" by Lavrushin OI is of particular note , which comprehensively covers the main theoretical principles, practical tools and management methods of management in the banking system [15]. Zaytseva IG's work "Bank Marketing" describes the organizational basis, management structure and processes of bank marketing and management [16]. In addition, the international document "Guidelines on Corporate Governance Principles for Banks " developed by the Basel Committee on Banking Supervision expresses modern management standards and principles of effective management of financial resources in banks [17]. The above scientific and methodological sources serve as an important basis for an in-depth study of the mechanisms of financial resource management in commercial banks.

In conclusion, the research of the above scientists serves as an important scientific basis for the use of innovative approaches to bank asset management, risk reduction , and financial stability. Based on these approaches, modern banks can increase the efficiency of their activities by diversifying assets, introducing automated management systems , and applying strategies based on risk analysis.

Research methodology.

on the effective management of bank assets requires multifaceted approaches. Within the framework of this article, research methodology occupies a special place, since the productivity of bank assets depends on many economic and financial factors, and various approaches are needed for their comprehensive

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analysis. The main goal of this research is to study in detail the activities of bank assets, develop sound recommendations for increasing their efficiency and reducing risks. Research methodology is a set of scientific approaches, methods and tools used to deeply analyze a specific scientific problem and find a solution to it.

the main direction is, first of all, the analysis of existing scientific and practical literature, the selection of analysis methods based on financial indicators, and the use of modern statistical tools. At the same time, more in-depth and accurate conclusions can be reached by using qualitative and quantitative analysis methods together. Quantitative approaches often play a key role in determining the efficiency of assets of commercial banks . Through these methods, indicators such as bank profitability, liquidity position , and risk level are determined.

For example:

ROA (Return on Assets) - this indicator indicates the bank's net profit in relation to its total assets and shows what income is generated from assets.

is the ratio between a financial institution's liquid assets and short-term liabilities , which helps assess its ability to cover short-term payments.

Credit and investment risk analysis - this area uses regression analysis and other statistical models to determine the risk level of assets.

provide the opportunity to develop decisions based on accurate numerical data . This contributes to the effective use of bank resources and stabilization of operations. At the same time, qualitative analysis methods are also important , through which it is possible to gain a deep understanding of bank management processes, identify risk control methods, and explore new approaches.

Within the framework of qualitative approaches, the following methods are widely used:

mastering the experience of managing bank assets based on advanced theories and previously studied research.

- Case Study - examining the activities of individual commercial banks and analyzing how assets are managed in them.

- Interviews with experts (expert interviews) – to gain in-depth insights into current problems and solutions through interviews with experts with experience in the banking industry.

Such approaches will allow identifying opportunities and shortcomings in bank asset management and developing modern management models and strategies. At the same time, it is necessary to widely use economic models and statistical tools. Using regression models, ways to increase efficiency are studied through analysis of risk factors, simulation and modeling of investment portfolios.

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In conclusion, the methodology used to improve the efficiency of bank assets should be comprehensive and systematic. The combination of quantitative and qualitative analysis methods, based on modern economic models and expert assessments, can ensure the financial stability of banks and increase their profitability. This, in turn, creates the basis for establishing effective management in commercial banks and rational use of resources.

Analysis and results.

This analysis aims to study the impact of liquidity management on profitability in commercial banks in Uzbekistan. Since the purpose of econometric models and equations is to evaluate the results, the coefficients and numbers in the study were selected randomly.

The following two models were used as research models:

$Y1 = a0 + a1x1 + a2x2 + a3x3 + a4x4 + a5x5$ (1)

$Y2 = b0 + b1x1 + b2x2 + b3x3 + b4x4 + b5x5$ (2)

Here:

and ROA (return on assets), respectively .

X1: Investment Ratio = Net Loans / Total Deposits

X2: Net Loans / Total Assets

X3: Capital Ratio = Capital / Total Assets

X4: Liquidity Ratio = Liquid Assets / Total Assets

X5: Quick (acid) ratio = (Current assets – Inventory) / Current liabilities.

a1, a2, a3, a4 and a5: represent the values of the coefficients of the variables in the first model.

b1, b2, b3, b4 and b5: represent the values of the coefficients of the variables in the second model.

a0, b0: represent the values of the vertical intercept (free term).

The first model measures the impact of liquidity management indicators on profitability in commercial banks in Uzbekistan, using return on equity (ROE) as the profitability measurement criterion.

The second model measures the impact of liquidity management indicators on profitability in commercial banks in Uzbekistan, using return on assets (ROA) as a profitability measurement criterion.

Liquidity management was assessed using the indicators in Table 1 below.

Table 1. Liquidity variables

Variable symbol	Unit of measurement	Description

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IR	Investment ratio	Net Loans / Total Deposits
NCF/TA	Net Loans / Total Assets	Net Loans / Total Assets
CR	Capital ratio	Capital / Total Assets
LR	Liquidity ratio	Liquid assets / Total assets
QR	Quick (acidic) ratio	(Current Assets – Inventory) / Current Liabilities
ROE	Return on Equity	Net Income / Owners' Equity
ROA	Return on Assets	Net Income / Total Assets

This research analysis used ratio analysis, cross-sectional analysis, regression analysis, and Fisher F-tests, including liquidity ratios and profitability ratios.

The results of Table 2, which is the stationarity test for Model 1 below , show that the rejection of the null hypothesis of stationarity of the variables in the first model is calculated in the first difference.

Table 2. Stationarity test for model 1

Variable	ADF Statistics	P-value	Integration procedure
Y1	16.5402	0.0000000	I(0)
X1	1.72769	0.0000420	I(0)
X2	4.74167	0.0000000	I(0)
X3	9.14883	0.0000000	I(0)
X4	4.82969	0.0000000	I(0)
X5	3.51313	0.0000002	I(0)

shown in Table 3 below , and the rejection of the null hypothesis of stationarity of the second variables is calculated in the first difference model.

Table 3. Stationarity test for model 2

Variable	ADF Statistics	P-value	Integration procedure
Y1	3.4521	0.0000000	I(0)
X1	8.5464	0.0000420	I(0)

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X2	4.7694	0.0000000	I(0)
X3	2.2720	0.0000000	I(0)
X4	4.4326	0.0000000	I(0)
X5	3.0464	0.0000002	I(0)

Fisher F-test results showed that the F-value for both models was < 5% , which indicates that the models are suitable for assessing the impact of liquidity management on profitability. According to the analysis results :

In Model 1, the independent variables explain 76% of the variation in ROE.

In model 2, the independent variables explain 66% of the variation in ROA.

is less than 5% , there is a significant relationship between liquidity management and bank profitability.

To test the hypothesis, the following two models are used to examine the impact of liquidity management on bank profitability:

Y1 = a ± a1 (X1) ± a2 (X2) ± a3 (X3) ± a4 (X4) ± a5 (X5)

Y2 = b ± b1 (X1) ± b2 (X2) ± b3 (X3) ± b4 (X4) ± b5 (X5)

The results of the hypothesis testing yielded the following conclusions:

- Investment ratio has a positive impact on profitability .
- Net loans/ total assets ratio – negatively affects profitability.
- Capital ratio has a negative impact on ROE and a positive impact on ROA.
- Liquidity ratio – negatively affects profitability .
- Quick ratio – has a positive impact on profitability .

Determining the coefficient values of the research models The following two tables show the coefficient values of the two models, respectively.

Table 4. Coefficient values for model 1

Variable	Coefficient	Sig. T value
X1	+0.126	0.0003
X2	-0.262	0.0038
X3	-0.215	0.0409
X4	-0.330	0.0000
X5	+0.153	0.0023
Constant (a0)	+0.216	0.0000

Table 5. Coefficient values for model 2

Variable	Coefficient	Sig. T value
X1	+0.010	0.0081
X2	-0.022	0.0056
X3	+0.058	0.0502

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X4	-0.054	0.0000
X5	+0.027	0.0000
Constant (b0)	+0.016	0.0053

By using the coefficient values from the two tables above, the research equations are formulated as follows:

Y1 = 0.216 + 0.126X1 - 0.262X2 - 0.215X3 - 0.330X4 + 0.153X5

Y2 = 0.016 + 0.010X1 - 0.022X2 + 0.058X3 - 0.054X4 + 0.027X5

The first equation implies that profitability, measured by return on equity (ROE), is positively affected by the investment ratio and the quick ratio, while other variables have a negative impact.

The second equation shows that profitability, measured by return on assets (ROA), is positively affected by the investment ratio, the ratio of net credit resources to total assets, and the quick ratio, while the other two variables have a negative impact on profitability.

Conclusion.

This study aims to empirically examine the impact of liquidity management of bank resources on profitability in commercial banks of Uzbekistan and to determine how these banks can maintain a balance between liquidity and profitability.

Based on the results of the study, the following conclusions were drawn: Liquidity management in commercial banks of Uzbekistan affects profitability, which is measured by ROE (return on equity) or ROA (return on assets). In particular, the impact of the investment ratio and the quick liquidity ratio on profitability measured by ROE is positive, and the impact of the capital ratio on profitability measured by ROA is also positive. The impact of other independent variables on profitability measured by ROE and ROA is negative. According to the study , this negative impact is associated with the increasing volume of unused deposits in commercial banks of Uzbekistan.

Therefore, the research recommends the following: it is necessary to direct the excess liquidity available in banks to various investment areas, which will increase the profitability of banks and effectively use the time value of available funds. Also, commercial banks of Uzbekistan should adopt a common conceptual framework for liquidity management , which will provide sufficient liquidity for the effective implementation of their activities. In addition, it is necessary to conduct an analytical study of the volatility of liquidity levels and assess the ability of banks to achieve a balance between the sources of funds and their use. Banks should use

scientific methods to identify the strengths and weaknesses of liquidity, especially in the event of unforeseen circumstances.

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