ENSURING THE LIQUIDITY OF COMMERCIAL BANKS DURING THE PANDEMID PERIOD

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Abstract- *In the article examined the impact of the COVID-19 pandemic on the liquidity of commercial banks in Uzbekistan and the issues of ensuring the liquidity of banks in this case.*

Keywords: banking system, capital, current liquidity, capitalization, liquidity, capital adequacy, financial stability, solvency, risk.

1. INTRODUCTION

Ensuring the liquidity of commercial banks is an important issue in international banking practice during the COVID-19 pandemic. The most important indicator of financial stability of commercial banks is liquidity. Banks have had liquidity problems since their inception. That is, the efficiency of banks is determined by the ability to timely fulfill obligations to customers.

Liquidity is one of the most important concepts in the activities of commercial banks. Liquidity forms the basis of the reliability and stability of commercial banks and lays the foundation for their solvency. Liquidity of banks is a necessary category in ensuring their solvency and reliability.

Inactivity in the economy and ensuring and maintaining the liquidity of commercial banks during a pandemic increases the risk of banking operations, which can lead to a crisis. There are a number of factors that affect the growth of risks in the bank's liquidity, which require special attention to the bank's liquidity and constant monitoring of the bank's liquidity risk. Therefore, banks are forced to maintain liquidity even if they give up their income.

In turn, if the resources are directed to increase the profitability of banks, then it will affect the liquidity of the bank. Hence, the liquidity and profitability of banks are inversely proportional to each other.

Hence, the liquidity of the bank means its ability to make timely and complete payments on its obligations and to meet the needs of customers for credit in a timely manner.

The issue of bank liquidity analysis is covered in detail in the recommendations of the International Basel Committee on Banking Supervision. Liquidity analysis under this agreement involves the need to determine the bank's ability to meet its obligations in a timely manner and without loss. Customer confidence in the banking system depends on banks fulfilling their obligations flawlessly. Thus, the liquidity and solvency of banks is an area of concern for banking regulators, which should ensure the overall liquidity of banks. Every time the client wants to withdraw money from his account, the bank needs to fulfill its obligations. If the obligation is not fulfilled, the bank loses its reputation, which can also lead to bankruptcy. The simplest way to ensure liquidity is to keep some of the bank's assets in liquid form, such as cash, balances on correspondent accounts with the central bank and other banks, and short-term government bonds.[14]

Increased liquidity risk in the bank weakens the solvency and reduces confidence in them. Therefore, banks will have to pay special attention to liquidity and constantly manage risk on it. Banks are forced to maintain liquidity even if they lose their income in order not to lose confidence in themselves.

Banks should determine the required amount of liquid assets, taking into account the factors affecting changes in liquidity. These factors include the following [4]:

- possession or loss of funds due to increase or decrease of deposits; the bank must fulfill its obligations on borrowed funds in the near future, which involves analyzing the amount of deposits and other liabilities related to the maturity, as well as the amount of deposits remaining in the bank in comparison with deposits and other liabilities withdrawn or paid immediately;
- an increase or decrease in the normative amount of required reserves in accordance with the increase or decrease in the amount of deposits also has a direct impact on liquidity, as funds directed to meet the norm of required reserves are one of the main forms of liquid assets;
- increase or decrease in cash flow due to increase or decrease in the amount of loans and investments; the effect of this factor is that an increase in the amount of loans and investments reduces the share of liquid assets, as investments are often attracted in the long run.

In order to ensure an acceptable level of liquidity at a time of increasing profitability, the bank should analyze the terms of attracted deposits and related costs and compare them with the terms of loans and investments and planned income. Such a comparison allows to determine the state of liquidity of the bank on the basis of comparison of placed and attracted funds by maturity, as well as to conduct credit policy with the optimal ratio of short-term and long-term loans to achieve the required maximum level of liquidity.

In accordance with Principle 14 of the Basic Principles of Effective Banking Supervision of the International Basel Committee on Banking Supervision, in order to maintain the required level of liquidity, a commercial bank must have a specific liquidity management strategy, monitor liquidity on a daily basis and develop a clear alternative solution plan necessary [15].

According to the requirements of Basel II, first, the management of the bank's liquidity department should pay as much attention to off-balance sheet liabilities as liabilities on the balance sheet, that is, liabilities should be studied in a comprehensive manner;

Second, the liquidity management strategy should be clear and understandable and be approved, supervised and monitored by the bank's board;

Third, board members need to be aware of the level of risk that arises in a liquidity strategy;

Fourth, other operational risks (credit, market, and operational risks) must affect the level of liquidity, and constant alternatives must be available;

Fifth, it is necessary to analyze each type of foreign currency, set discounts and change them.

As noted above, during the current pandemic, there are a number of factors that affect the liquidity of commercial banks, which, if not addressed in a timely manner, can negatively affect the performance of banks.

2. RESEARCH METHODOLOGY

This article discusses the issues of ensuring the liquidity of commercial banks, and the purpose of the study is to develop scientific conclusions and practical proposals to increase the liquidity of commercial banks. The implementation of scientific proposals and practical recommendations developed in the research will lead to an increase in the liquidity of commercial banks.

To achieve a high level of net profit, we examine the following factors that affect the change in net profit, namely the relationship between net income, non-profit assets and attracted deposits, based on correlation-regression analysis.

Issue of statistics of competition of small business and private entrepreneurs assessment methods were studied by Odilov R.[5], the empirical research on causal relationship between export and foreign investments in the economy of Uzbekistan based on granger test were made by Mustafakulov, S. I.[6], econometric model of production capacity usage of textile enterprises in Uzbekistan were researched by Tursunov B.O. [7, 8,11], Modernization and intensification of agriculture in the republic of Uzbekistan were investigated by Yuldashev, N. K., Nabokov, V. I., Nekrasov, K. V. [9,10], evaluation of textile and clothing industry clustering capabilities in Uzbekistan were made by scientists as well as Berdiyarov B. [13], Regional features of industrial production dynamics in the research of textile enterprises financial security in Uzbekistan were studied by Zarova E.V.[12] and et.al.

3. ANALYSIS AND RESULTS

In many countries, banks' liquidity ratios are grouped by maturity, calculated on the basis of the ratio of assets to liabilities on the balance sheet. In France, for example, such a period is 3 months. In France, banks placed them for the same period when they attracted bank liabilities to ensure liquidity. Commercial banks are required to submit the results of these calculations to regulatory authorities on a quarterly basis. The minimum level of these indicators should not be less than 60% [16].

Commercial banks in the United Kingdom follow a liquidity ratio that reflects the ratio of monthly cash, Nostro account balances, demand deposits and one-day securities and recalculated bills to the total borrowed resources in the Bank of England (Central Bank). provides information about In addition, commercial banks calculate other liquidity ratios that do not require reporting to the Bank of England. [17]. They are:

- the ratio of redemption of assets placed for a period of one month to liabilities of the same period;
- is expressed as the ratio of assets placed for a period of six months to liabilities of the same term.

German commercial banks also report balance sheet liquidity to the German Federal Bank on a monthly basis [17].

Liquidity standards in Russian commercial banks are within the existing limits, and compliance with them is mandatory for every bank. The Bank of Russia monitors the status of commercial banks on a monthly basis on the basis of reports submitted by them. In case of non-compliance with these economic standards, the Bank of Russia may impose warning or restrictive measures (fines, restrictions or bans on certain operations, ban on opening branches, etc.) [18].

In the practice of the U.S. banking system, the Federal Reserve System has not set mandatory liquidity standards for the liquidity of commercial banks. Commercial banks are recommended primary and secondary reserve standards and cash flows are analyzed. [17].

The Central Bank of the Republic of Uzbekistan is working to increase the liquidity of commercial banks during the pandemic [4]:

- increase the resource base of commercial banks;

- improving the quality of bank assets;

- strengthening guarantees for depositors and further strengthening the confidence of the population and foreign investors in the banking system;

- introduction of new attractive deposits and deposits,

- broad involvement of free funds of the population and businesses in the bank turnover by expanding the range and scope of banking services.[15]

As a result of the identified directions, the concrete measures taken, we can clearly see that the banking system of the republic is operating stably and reliably, showing high performance.

In the Republic of Uzbekistan, the required reserve ratio is set at 4%. Due to the high rates of required reserves, the volume of funds deposited in the required reserves of the Central Bank also remains high. This instrument of monetary policy in the country has a strong impact on the liquidity of banks. Below we consider changes in the dynamics and structure of the reserve of required reserves over the last 2 years.

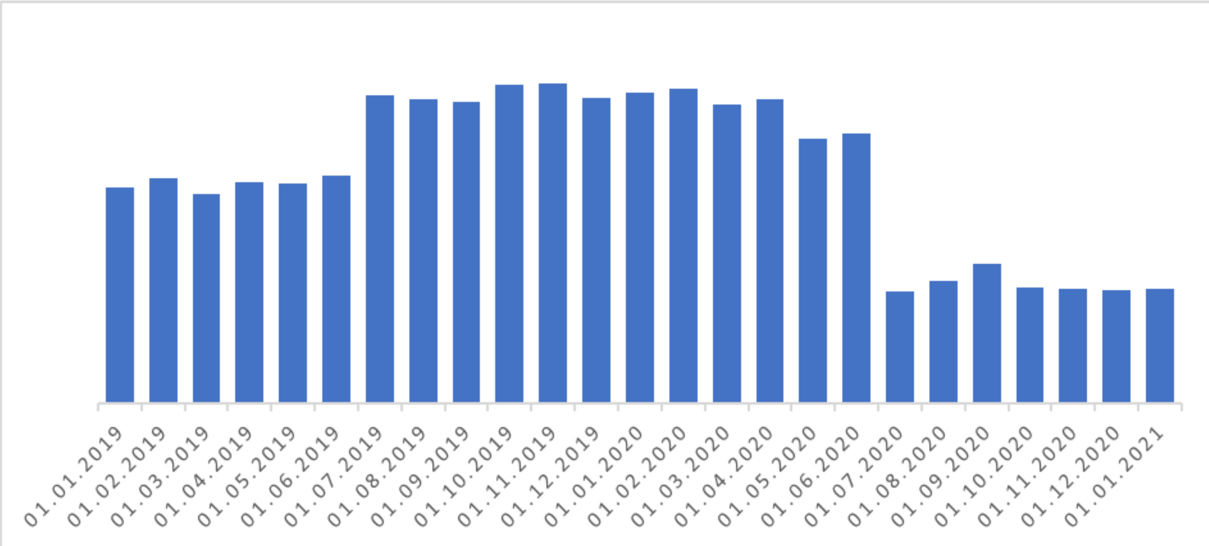

Figure 1. Mandatory reserve balance dynamics (Central Bank, 2021)

As of January 1, 2021, the balance of funds on the reserves of required reserves formed by commercial banks with the Central Bank amounted to 2.6 trillion soums compared to the beginning of the year. decreased by UZS. This decrease has had a positive impact on the increase in liquidity of commercial banks.

In order to have a positive impact on the liquidity of commercial banks during the pandemic, the Central Bank of Uzbekistan decided to increase the average ratio of commercial banks to the amount of required reserves to be deposited with the Central Bank from April 1, 2020.

That is, in order to support the liquidity of banks and ensure the stable operation of the payment system, the current averaging ratio of 0.25 to the amount of required reserves increased from 0.35 to 0.75 from July 1, 2020 to 0.35. [19].

At the same time, it was allowed to leave 75% of the amount of required reserves of commercial banks to be transferred to the Central Bank in the correspondent accounts of banks. This, in turn, serves to support the liquidity of commercial banks.

The following table shows the status of compliance with the liquidity standards in the banking system of the republic, we can see that the banking system of the republic has met the regulatory requirements set by the Central Bank. As a result of the increase in highly liquid assets compared to the previous year, we can see a positive increase in liquidity ratios.

Table 1

Liquidity dynamics of the banking system

Name of indicators	01.03.2020 y.	01.03.2021 y.
Liquidity coverage ratio (min. demand - 100%)	186,8%	143,0%
Pure sustainable funding norm (min. demand -100%)	110,5%	111,5%
Instantaneous liquidity ratio (min. demand - 25%)	49,8%	67,4%

Source: Based on data from the Central Bank (2021) [20]

As can be seen from the table above, during the pandemic, the central bank seeks to manage and exert its influence through the monetary policy instruments - the refinancing rate and the required reserve policy. Controls the liquidity of commercial banks and thus the liquidity of the banking system through economic standards set for commercial banks.

We will now analyze the areas in which commercial banks have been working to ensure liquidity by managing their economic performance so that they can operate normally during the pandemic. The following table considers the level of coverage of the loan portfolio of commercial banks with bank deposits.

Table 2

Information on comparative indicators of commercial banks

Indicators	01.01.16y	01.01.17y	01.01.18y	01.01.19y	01.01.20y	01.01.21y
Ratio of assets to liabilities,%	111,6	110,9	114,0	114,0	123,0	119,0
Ratio of loans to deposits,%	140,1	152,9	186,0	239,0	232,0	241,4

Source: Based on data from the Central Bank (2016-2020). [20]

It can be seen from this table that the deposits of commercial banks did not grow in the same proportion as the loans of commercial banks. In particular, last year, loans from commercial banks increased by 2.1 times, while deposits from commercial banks, which are considered its source, increased by 0.6 times.

The structure of liabilities of commercial banks, including loans and leases, total deposits and deposits, which we analyzed, was examined. The following table provides an analysis of the structure of liabilities and deposits of commercial banks.

Table 3

Analysis of individual indicators of commercial banks

Indicators	01.01.16	01.01.17	01.01.18	01.01.19	01.01.20	01.01.21
The share of borrowed loans and leases in total liabilities	34,0	36,8	43,7	48,6	38,6	41,4
The share of borrowed loans and leases in total liabilities	38,0	40,8	49,9	55,6	47,5	49,3
The share of demand deposits in total liabilities	26,5	24,9	18,0	20,2	20,7	19,1
The share of demand deposits in total liabilities	29,6	27,6	20,6	23,1	25,4	22,7
The share of demand deposits in total deposits	60,8	60,2	50,4	61,9	62,0	60,9
The share of total deposits in total liabilities	43,7	41,4	35,7	32,6	33,4	31,3

Source: Based on data from the Central Bank (2016-2020). [20]

During the period under review, the assets of commercial banks increased by 6.6 times, while deposits increased by 4.7 times. The source of growth of assets of commercial banks was not bank deposits, but targeted funds attracted from international financial institutions and local funds. In particular, the target funds attracted from international financial institutions and local funds at the beginning of 2016 amounted to 28.3% of total liabilities, and as of January 1, 2021, this figure reached 48.5%. In particular, the share of these funds in total liabilities increased from 31.6% to 54.8% during the analysis period.

It is known that the impact of deposits on the liquidity of commercial banks is large. Based on this, we examined the share of demand deposits in total liabilities, liabilities and deposits. As a result of the decrease in the share of total deposits in total liabilities during the analysis period (from 43.7% to 31.3%), demand deposits in total liabilities (from 26.5% to 19.1%) and demand deposits in total liabilities (29 , From 6% to 22.7%). The decrease in deposits of legal entities and individuals in the structure of liabilities of the banking system can be explained by the lack of confidence in the banking system and the active attraction of targeted funds from external sources by commercial banks.

One of the important elements of ensuring the liquidity of commercial banks is to ensure the stability of its capital. The net profit of commercial banks at the end of the year plays an important role in ensuring the stability and growth of capital, as the net profit, in addition to dividends to bank shareholders, creates reserves and funds, which increases the amount of capital. affects.

To achieve a high level of net profit, we examine the following factors that affect the change in net profit, namely the return on income-generating assets, non-returnable assets and attracted deposits on net profit.

The sample data of the study consists of 3 factors, including data on the end date of each month from 2016 to 2020.

The analysis presents net income, which is a voluntary variable - income-generating assets, non-income-generating assets, attracted deposits, and an involuntary variable.

The dependence of income-generating assets on the change in net profit is that income-generating assets have a direct impact on changes in net profit, i.e. income-generating assets reflect the bank's total income, an increase in the bank's total income has a positive effect on net profit.

Non-returnable assets also have a direct effect on the change in net profit, i.e., an increase in non-returnable assets has a negative effect on the change in net profit.

Attracted deposits also have a direct impact on the change in net profit, ie it is natural for banks to increase their income at the same time as their income-generating assets increase, as banks invest in assets to attract income by lending and investing free funds from individuals and legal entities.

In the absence of liquidity of commercial banks, the share of attracted deposits is high, which has a negative impact on net profit.

In this study, the effect of the factors selected above on net profit is proved theoretically and empirically.

Based on the above factors, the economic model looks like this:

$$\text{СФ}=\beta_0+\beta_1\text{ДА}+\beta_2\text{ДКА}+\beta_3\text{ЖКД}+u_i \qquad (1^*)$$

Here:
СФ – net profit;
ДА – income-generating assets;
ДКА – non-profit assets;
ЖКД- attracted deposits;

In this regression analysis, β_0 is a constant and the coefficients β are variables, where u_i is the residual error of the regression.

Expected results from free variables

Factors	Expected result (effect on CF)
ДА	**+**
ДКА	**-**
ЖКД	**-**

The effect of selected arbitrary variables affecting net profit is as follows.

ДА - net income also increases as income-generating assets grow, so a positive correlation is expected from this factor.

ДКА – an increase in non-yielding assets leads to a decrease in net profit, so a negative correlation is expected from this factor.

ЖКД – an increase in attracted deposits leads to a decrease in net profit, so a negative correlation is expected from this factor.

Correlation analysis

	СФ	ДА	ДКА	ЖКД
СФ	1			
ДА	0,642	1		
ДКА	0,277	0,577	1	
ЖКД	-0,145	0,414	0,307	1

As can be seen from the data in the table above, factors that are positively correlated with net profit include income-generating assets and non-income-generating assets. Negatively related factors include attracted deposits.

The indicator with a high correlation with net profit is 64.2 per cent of these non-yielding assets, while the low correlation ratio is 27.7 per cent of these non-yielding assets.

Also in the correlation matrix, the correlation between ДА and ДКА was 57.7%, the correlation between ДА and ЖКД was 41.4%, and the correlation between ДКА and ЖКД was 30.7%.

Covariance analysis

	СФ	**ДА**	**ДКА**	**ЖКД**
СФ	34814784,5			
ДА	402455876,2	11296617681		
ДКА	105937287,7	3970863242	4194844612	
ЖКД	-34987069,8	1807069600	815700121,6	1682765333

Net income-generating assets and non-income-generating assets have a positive covariance, i.e., an increase in net profit is observed simultaneously with an increase in income-generating assets and non-income-generating assets.

Deposits attracted with net profit have a negative covariance, i.e. a decrease in attracted deposits leads to an increase in net profit.

Regression analysis

Regression statistics	
Multi-band R	0,7878
R- square	0,6206
Customized R-square	0,6003
Default error	3761,7
Number of observations	60

Dispersion analysis					
	df	*SS*	*MS*	*F*	Significance F
Regression	3	1296448629	432149542,9	30,53912	0
Residue	56	792438439,5	14150686,42		
Total	59	2088887068			

	Coefficients	*Default error*	*t-statistics*	*P-value*	*Lower 95%*	*High 95%*
Y- cutting point	1285,5405	2589,1905	0,4965	0,6215	-3901,2313	6472,3124
ДА	0,0497	0,0058	8,4663	0	0,038	0,0615
ДКА	-0,0081	0,0092	-0,8857	0,3795	-0,0266	0,0103
ЖКД	-0,0702	0,0131	-5,3769	0	-0,0964	-0,0441

СФ= 1286 + 0,0497ДА - 0,0081ДКА - 0,0702ЖКД + u_i

Determination coefficient R^2 =0,7878 concluding that the result is that 78.8 percent of the variation in net profit is explained by this model.

The standard regression error is 3761.7.

Regression analysis shows that of the selected free variables, 1 is positive and 2 are negative.

If we analyze the model formed as a result of regression, increasing our ДА (income-generating assets) by 1.0 billion soums will lead to an increase in СФ (net profit) by 49.7 million soums without changing other factors.

Increasing ДКА (non-profit assets) by 1.0 billion soums will lead to a decrease in СФ (net profit) by 8.1 million soums without changing other factors, but we can say with confidence that the impact of this factor on net profit is 62.0%. indicates that the level is low.

Increasing the ЖКД (attracted deposits) by 1.0 billion soums will lead to a decrease in СФ (net profit) by 70.2 million soums without changing other factors.

Among the factors, ДА (income-generating assets) and ЖКД (attracted deposits) have a high impact on net profit, i.e., the confidence level is 99%, while ДКА (non-returnable assets) has no effect on net profit (r-value is too high 37,9) can be seen through the above model.

4. CONCLUSIONS AND SUGGESTIONS

Based on the results of the analysis, there are the following problems related to ensuring the liquidity of commercial banks in the country:

1. Lack of development of securities operations of commercial banks of the Republic.

This was evident in the analysis of the active operations of commercial banks. In the banking practice of developed foreign countries, investments in securities are a post-loan asset according to the level of profitability. In addition, they play an important role in ensuring the liquidity of banks. Therefore, many foreign banks have a high level of return on assets. However, due to the underdevelopment of the financial market in our country, there are few liquid securities. Due to the fact that the state budget is executed with a surplus, the volume of government bonds, which are liquid securities, is small. Therefore, the share of securities in the assets of banks is low.

2. The pandemic has a serious negative impact on the liquidity of commercial banks, in which case in

order to ensure the liquidity of commercial banks in developed countries, mainly to increase the level of capitalization of banks, to provide them with centralized lending. At present, in order to ensure the liquidity of commercial banks of the country, it is expedient to widely introduce the practice of providing subordinated loans to commercial banks.

3. In order to further increase the level of liquidity of commercial banks of the Republic of Uzbekistan, it is necessary to reduce the amount of deposits required in assessing the current level of liquidity of banks to the amount of their stable balance.

A certain part of demand deposits in commercial banks of the country always exists as a stable balance. However, the stable balance of demand deposits in banks is not taken into account. In addition, the Central Bank's methodology for determining the current liquidity of commercial banks does not take into account the stable balance of demand deposits.

Excluding the stable balance of demand deposits, their use has a strong negative impact on the liquidity of banks. This is because demand deposits are passive with a high degree of volatility.

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