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Commercial Banks as a Key Element in Regulating Cash Flows in the Business Environment

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Abstract*: One of the main tasks of the banking system since its inception is the regulation and redistribution of cash flows in the business environment. A key element of this system are commercial banks, which are the basis of the banking system.Being a commercial organization, the bank is primarily interested in maximizing profits, but at the same time, it is the process of maximizing profits that triggers the regulation and redistribution of cash flows in the business environment. The attraction and accumulation of liabilities, as well as the issuance of loans and credits, is carried out by commercial banks solely within the framework of the expediency of their activities, and this very activity helps to stimulate the redistribution of cash flows in the business environment.Traditionally, the bank's liquidity indicators are associated with its financial stability, but this article will address the liquidity of a commercial bank in order to fulfill its functions as a cash flow regulator. Liquidity management methods are methods of influencing cash flows in a business environment; commercial bank liquidity management activities lead to changes in cash flows.

Keywords: Business Environment, Cash Flows, Commercial Banks, Regulating.

I. INTRODUCTION

Speaking about the role of the banking system in the business environment, it should be understood that it is a combination of banks, the banking infrastructure itself, the body of laws regulating it, and of course the banking market itself. Each element of this system is closely interconnected with both other elements and the external business environment [1]. It goes without saying that commercial banks, being an element of the banking system, take a leading role in the implementation of its functions and destinations.

A key feature of commercial banks in regulating financial flows stems directly from their main functions [2-5], which underlie the definition of a bank and determine its essence:

1. the function of accumulation and mobilization of temporarily free cash - banks attract free cash funds of individuals and legal entities. In the future, banks provide loans to them and purchase securities;
2. credit intermediation function - commercial banks accumulate funds and provide them to enterprises, the public, and the state;
3. mediation function in making payments and settlements - banks open an account for customers and transfer funds;
4. the function of creating means of payment - banks issue checks, bills, plastic cards, create money in non-cash form in the form of deposits;
5. the function of organizing the issue and placement of securities - banks sell the securities of enterprises for the redistribution of funds;
6. consulting services; informing about the increase in creditworthiness, the use of new forms of settlements and loans [6-7].

All this functionality can be represented in the form of a schematic image (Fig. 1).

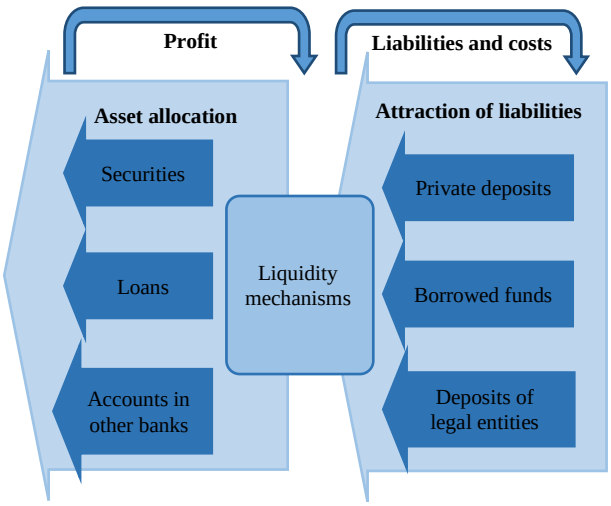

Fig. 1.Cash flow chart of a commercial bank

Commercial banks are organizations whose main purpose of functioning is to maximize profits, but at the same time they successfully fulfill their function of regulating cash flows in the business environment.

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At the same time, one should not forget that the main role of the main violin, so to speak, is undoubtedly played by the country's central bank - it is he who sets the rules for the "game" for all commercial banks, so to speak, "conducts the orchestra".

Based on state policy and the laws of the functioning of the financial market, the Central Bank determines the rules for the work of commercial banks, sets the desired development vector for the entire economy, but nonetheless, commercial banks are the mechanism that implements the policy of the central bank.

At their core, commercial banks perform the role of a regulator indirectly, the very essence of their work in the financial market will determine the regulatory role in balancing cash flows. By attracting liabilities and selling assets, banks are becoming key nodes in redirecting cash flow. By accumulating funds in their accounts, they have the opportunity to redirect them to the sphere of the economy in which the maximum profit will be obtained from their injection.

It is worth mentioning here that maximum profit is not an absolute concept, banks often determine their policies based on risk assessment of investments, thus the concept of maximum profit can be rephrased - maximum and safe profit.

The famous quote that "money is the blood of the economy, when it stops circulating, the body dries out," makes it clear that in such cases, commercial banks are the heart of the economy. It depends on the effectiveness of their work whether "blood will circulate throughout the body."

II. METHODOLOGY

A. Identification of key approaches to managing financial flows

The fulfillment by the commercial banks of the cash flow management function requires a systematic approach based on the formation of a special financial strategy of the bank, as well as on a regular and systematic analysis of the bank's key performance indicators.

One of the key indicators of banking performance is its liquidity, coupled with the structure of the bank's liabilities and assets. Liquidity of a bank is determined by the balance of its assets and liabilities and, to a certain extent, by the correspondence of the terms of placed assets and attracted liabilities.

It is with liquidity management that the bank's function of regulating cash flows in the business environment begins to emerge. Liquidity for a commercial bank is the ability of a bank to transform its assets into cash or other means of payment to pay its obligations with a lack of means of payment, for the business environment, this means the ability to obtain the necessary funds in the form of loans, or vice versa to place temporarily available funds in as a bank deposit.

The joint management of assets and liabilities serves the bank as a tool to provide protection and guarantees for borrowed funds in the form of loans and deposits. The activities of commercial banks, acting as intermediaries between those who have money in the form of savings and those who need them, is to rationally attract these funds and provide them in a loan or invest at higher rates to ensure overall profitability, including making a profit. With this approach, the direct influence of commercial banks on the cash flows of the business environment is manifested.

The structure of the assets and liabilities of a commercial bank serves as a clear demonstration of the cash flow of a business sector passing through a commercial bank. Figure 2 schematically shows the sources of cash resources and how to redistribute them.

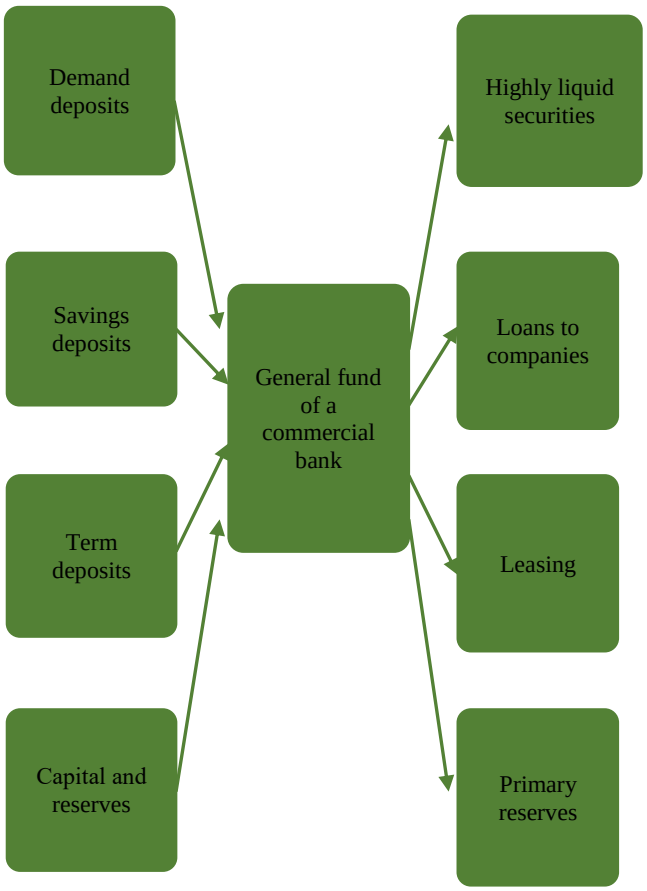

Fig. 2.Scheme of financial flows regulated by commercial banks

The asset and liability balance of a commercial bank are closely related to each other. Entering the credit markets, buying and selling securities, providing customers with a variety of services, banks constantly monitor the state of their liabilities, monitor the availability of free resources, terms of credit demand, the cost of attracted capital. If the flow of resources slows down, the bank is forced to revise its policy in the field of active operations, refuse profitable offers, repay part of the loans issued, sell securities, etc.

At its core, funds received in the form of liabilities, a commercial bank must redistribute in the form of assets with maximum profit for themselves. What is the regulatory function here? The fact is that, by their nature, the liabilities of commercial banks are very heterogeneous, each of them is treated from a certain source, and has its own financial parameters; accordingly, the bank, implementing its financial policy, will take into account the structure of its liabilities in the formation of assets.

This can be visually presented in the form of a diagram in Fig. 3.

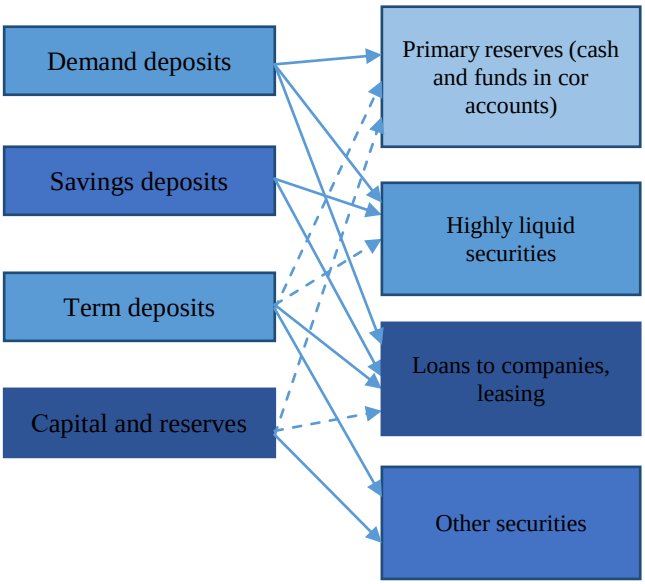

Fig. 3.Realization of the function of redistribution of cash flows through liquidity management

The diagram illustrates a situation in which a bank, having resources of a certain type (for example, with a predominance of long-term savings deposits), will conduct its financial policy based on its own capabilities (providing more favorable credit conditions for companies in certain industries).

In essence, the bank managing liquidity by balancing its own liabilities and assets - manages the financial flows of the business environment.

B. The methodology for calculating liquidity indicators as a way of regulating cash flows.

When calculating the bank's liquidity indicators, it is customary first of all to focus on ensuring its financial stability, but in this situation, attention should be paid to these indicators as a way to manage business cash.

To control the bank's liquidity, three liquidity indicators (instant, current and long-term) have been established. They are defined as the ratio between assets and liabilities taking into account the terms, amounts and types of assets, as well as other factors.

The instant liquidity ratio (L2) regulates (limits) the risk of the bank losing liquidity during one operational day and determines the minimum ratio of the amount of highly liquid assets of the bank to the amount of bank liabilities on demand accounts.

Calculated by the formula:

$$L_2 = \frac{HLA}{LD_0} \times 100 \quad (1)$$

where HLA - highly liquid assets, i.e. financial assets that should be received within the next day and can be immediately claimed by the bank and, if necessary, sold by the bank in order to immediately receive cash, including funds in correspondent accounts.

LD_0 - demand liabilities (liabilities) on which a depositor or creditor may be required to immediately repay them. It is calculated as the sum of balances on demand accounts, with certain adjustments.

The Bank's current liquidity ratio (L3) limits the risk of the bank losing liquidity within the next 30 calendar days to the standard calculation date and determines the minimum ratio of the bank's liquid assets to the amount of bank liabilities on demand accounts and for up to 30 calendar days.

The current liquidity ratio is calculated by the formula:

$$L_3 = \frac{LA}{LD_{30}} \times 100 \quad (2)$$

whereLA – liquid assets, i.e. financial assets that must be received by the bank or may be claimed within the next 30 calendar days in order to receive funds in the specified time;

LD_{30}– demand liabilities (liabilities), on which a depositor or creditor may be required to immediately repay them, and bank liabilities to creditors (depositors) with a maturity date of the next 30 calendar days.

Long-term liquidity ratio (L4) regulates the risk of a bank losing liquidity as a result of placing funds in long-term assets and determines the maximum allowable ratio of bank credit claims with a remaining maturity up to a repayment date of more than 365 or 366 calendar days to the bank's own funds (capital) and liabilities (liabilities) with a remaining maturity of more than 365 or 366 calendar days. The bank's long-term liquidity ratio is calculated by the formula:

$$L_4 = \frac{CR}{BC + LD_{365}} \times 100 \quad (3)$$

whereCR - credit claims with a remaining maturity of more than 365 calendar days, as well as extended loans;

BC - bank capital

LD_{365} - the bank's liabilities (liabilities) on loans and deposits received by the bank, as well as on bank bonds outstanding on the market with a remaining maturity of more than 365 calendar days.

Each of these indicators provides not only the opportunity to determine the financial condition of the bank, but also to calculate what policy it will take in a particular situation, respectively, and how its decisions will affect the process of redistributing cash flows in the business environment.

C. Practical aspects of the application of the methodology

For a commercial bank, as well as any commercial organization, the general basis of liquidity is ensuring the profitability of production activities (operations performed).

At the same time, the features of its work as an institution that bases its activities on the use of customer funds dictates the need for specific liquidity indicators.

Although the general and specific liquidity of a commercial bank is complementary, the direction of their actions is mutually opposite. The maximum specific liquidity is achieved by maximizing balances at the cash desk and on correspondent accounts in relation to other assets. But it is in this case that the bank's profit is minimal.

Profit maximization does not require the storage of funds, but their use for issuing loans and making investments.

Since for this it is necessary to minimize cash cash and balances on correspondent accounts to a minimum, maximizing profits jeopardizes the uninterrupted fulfillment by the bank of its obligations to customers.

Based on the calculation of indicators, the bank will determine the content of the main liquidity management strategies: asset management strategies, liabilities management strategies, assets and liabilities management strategies.

Asset management strategy - accumulation by the bank of liquid assets in the form of cash and easily traded securities;

- properties of liquid assets:
- presence of a market for their quick conversion into money;
- price stability in the market;
- reversibility, i.e. the ability to recover the initial investment with minimal risk

Liabilities management strategy - a loan of quickly sold funds in the amount necessary to cover the demand for liquid funds

Sources of attracting such resources:

- loans in the interbank market;
- repo transactions;
- accounting of bills and obtaining loans at the central bank;
- issue of commercial papers;
- obtaining loans in the Eurodollar market;
- issue of capital notes and bonds

Asset and liability management strategy - accumulation of liquid assets to meet the expected demand for them. Buying assets on the market in case of unexpected liquidity needs.

It must be borne in mind that each of these will have its own effect on the redistribution of financial flows.

III. EXPERIMENT

For the conditions of the experiment, the summary data of the analysis of the balance sheet of the commercial bank table 1 will be used. Data for two calendar years of work will be analyzed.For the conditions of the experiment, the summary data of the balance sheet analysis of the commercial bank (Table 1) will be used. Data for two calendar years of operation will be analyzed.

Table- I: Summary analysis of commercial bank indicators (Assets)

Asset names, USD	2017	Share, %	2018	Share, %	Absolute increase	Growth rate,%	Share change
Cash	2327879	2,98	2802810	2,17	474931	20,4	-0,81
Funds at the central bank	8448370	10,83	8289721	6,4	-158649	-1,877	-4,43
required reserves	1385156	1,77	1964749	1,52	579593	41,8	-0,25774
funds in credit organizations	679490	0,87	1270770	0,98	591280	87,01	0,11
net investment in trading securities	8717681	11,17	16445976	12,7	7728295	88,65	1,53
net loan debt	48151144	61,72	93933370	72,56	45782226	95,08	10,84
net investment securities held to maturity	2375	0,003	2172	0,002	-203	-8,55	-0,001
net investment in securities available for sale	7404187	9,49	4102205	3,17	-3301982	-44,6	-6,32
fixed assets, intangible assets and inventories	1498269	1,92	1473628	1,14	-24641	-1,64463	-0,78
interest requirements	54445	0,07	171521	0,13	117076	215,04	0,06
other assets	729688	0,94	955485	0,74	225797	30,94	0,2
Total assets	78013528	100%	129447658	100%	51434130	65,93	–

Analyzing the structure of the asset, we can say that in 2017 net loan debt had the largest share (61.72%), net investment in held-to-maturity investment securities held the smallest share (0.003%). In 2018, the situation did not change; there was an increase in net loan debt (+10.84%) and a decrease in the share of net investments in investment securities held to maturity (-0.001%). There is a slight decrease in the share of cash (-0.81%) and fixed assets (-0.78%), an increase in net investment in trading securities (+1.53%), as well as claims for interest (+0.06 %).

For a complete picture, the bank's liabilities data will also be taken into account, similarly for two years (Table 2).

Table- II: Summary analysis of commercial bank indicators (Liabilities)

Asset names, USD	2017	Share, %	2018	Share, %	Absolute increase	Growth rate,%	Share change
Own funds	21122396	26,3	10459500	10,7	-10662896	-50,48	-15,6
Stable parts of obligations	59177863	73,7	87294839	89,3	28116976	47,51	15,6
Total Permanent Liabilities	80300259	100	97754339	100	17454080	21,74	–

According to the table, it can be seen that in the dynamics of changes in the structure of the bank's liabilities, the share of own funds decreases and the share of the stable part of the bank's liabilities increases.

For further data analysis, we will carry out the calculation of the bank's liquidity indicators according to the methodology, and calculate the calculation results in Table 3.

The instant liquidity ratio in 2017 amounted to 51.01%, and in 2018 this indicator more than doubled and amounted to 106.05%. Thus, it can be understood that the bank worked with increasing current liquidity. This means that the bank will have enough liquid funds, and accordingly, the bank's policy was to actively stimulate their attraction, so that in case of claims for all demand liabilities, they should be repaid, preserving their solvency.

Table- III: Bank liquidity indicators

Asset names, USD	2017	2018
Bank instant liquidity ratio (L2)	68,13%	12,87%
Bank current liquidity ratio (L3)	54,45%	51,08%
Bank long-term liquidity ratio (L4)	65,64%	70,39%

For completeness, we will reduce all indicators to a single schedule (Fig. 4).

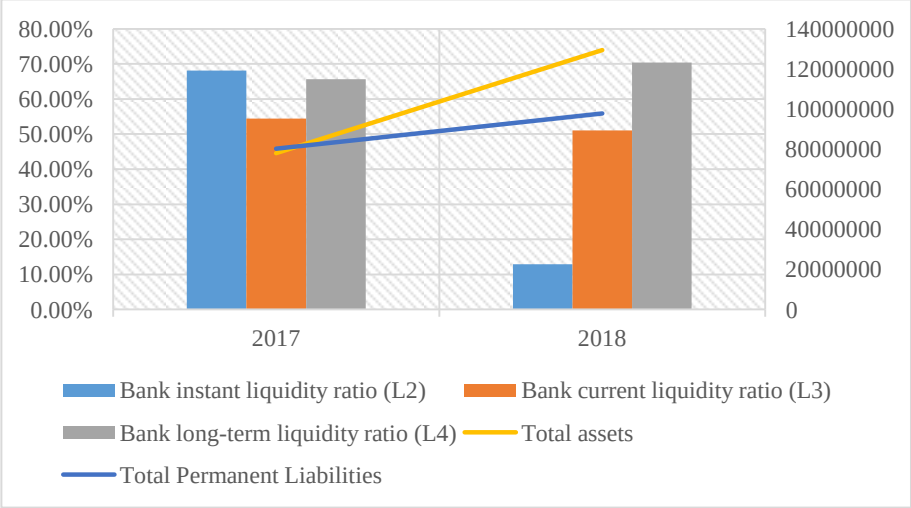

Fig. 4.Bank liquidity indicators

A significant decrease in the standard for instant liquidity on fixed-term liabilities to 12.87% in 2018 indicates a condition close to critical. This is mainly due to an increase in the amount of term liabilities, rather than an increase in the amount of liquid assets. Thus, the bank does not have liquid assets to repay the required share of term liabilities.

Studying the current liquidity ratio, we can say that it is at an acceptable level, which suggests that the bank is able to pay off 51.08% of liabilities for a period of up to 30 days in this period of time. It follows that the bank has both liquid assets and capital investments enough to guarantee repayment of 51% of liabilities for a period of up to 30 days.

The long-term liquidity ratio of 2017 amounted to 65.64%, and in 2018 this ratio increased and amounted to 70.39%. This means that 70.39% of the bank's long-term investments were secured by long term resources.

IV. RESULT AND DISCUSSION

The cumulative change in the bank's liabilities and assets is graphically presented in Fig. 5.

Thus, from the analysis of the structure of liabilities and assets of the bank, as well as liquidity indicators. balance of the bank, we can conclude that the bank has a decrease in the share of highly liquid assets, which means that the bank is not exposed to the risk of excess liquidity. But this also indicates that the main factor for the formation of the bank's strategy is the risk of possible fluctuations of funds in settlement and current accounts - which will predetermine further possible actions of the bank to stimulate legal entities in order to keep the maximum balance on their accounts.

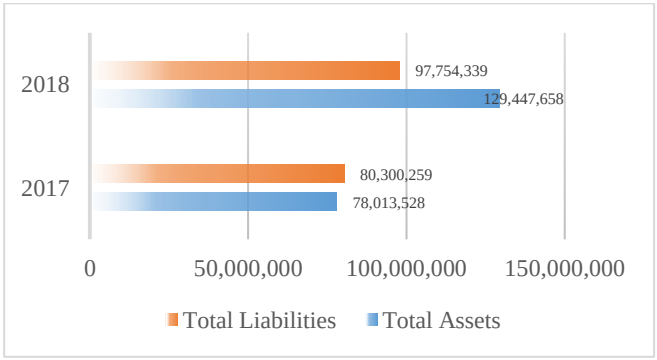

Fig. 5. Changes in liabilities and assets of a bank

A typical decrease in highly liquid assets, shown in the graph in Fig. 6, is something that may be a problem for the bank in future activities, but also a potential potential. Excess liquidity often means a decrease in profit for the bank, attempts to change the situation will also affect the cash flows of both the bank and its customers.

What this can mean from the point of view of financial flows - for the business environment, the bank will be ready to provide more favorable conditions for settlement and cash services, which means a possible incentive for small companies to form a cash reserve in current accounts.

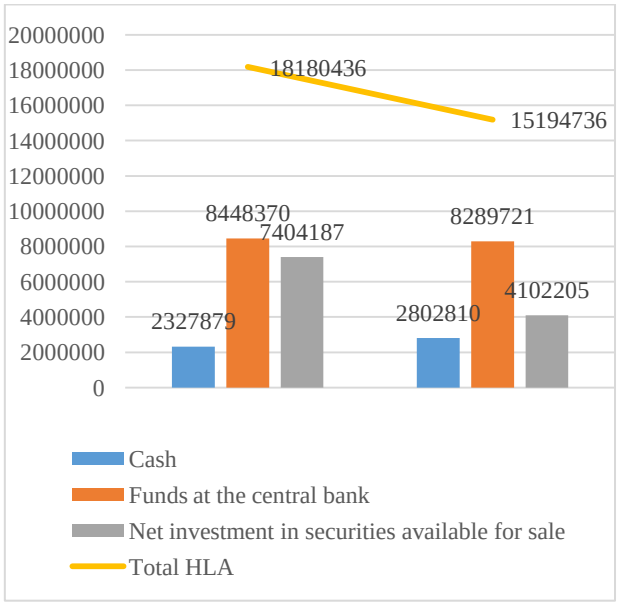

Fig. 6.Scheme of changes in highly liquid assets

The situation with investments in securities is quite different; summarized data are presented in Fig. 7 - indicative and characteristic of stable assets.

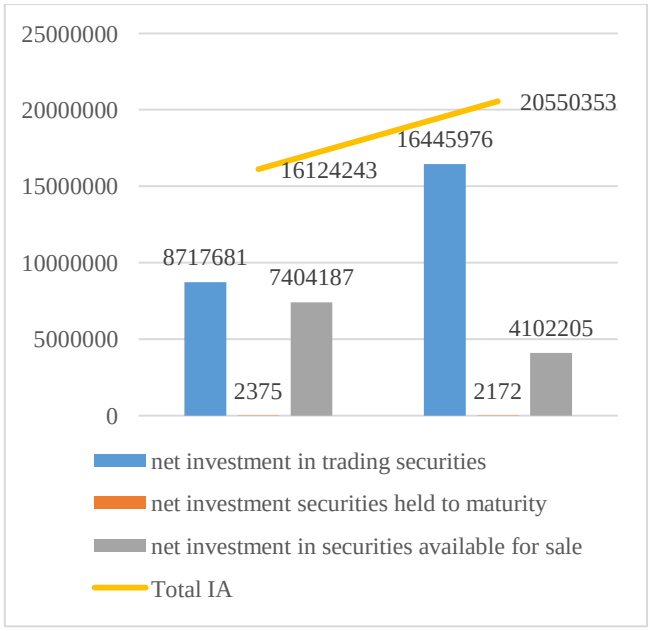

Fig. 7.The nature of changes in securities investments

The increase in net investment in trading securities (highly liquid assets of the second group) shows that the bank, by increasing the share of these assets, seeks to reduce the risk of unbalanced liquidity. An active game of the bank in the securities market is a factor influencing the redistribution of cash flows and, as a result, the stimulation of large players and trading floors.

A possible strategy of the bank will be to try to reduce this risk by increasing investments in investment securities held to maturity and in securities available for sale, as a result of which there will be an activation of potentially profitable projects in which additional funds will be poured.

The general nature of the changes in the main liquidity indicators is clearly shown in Fig. 8.

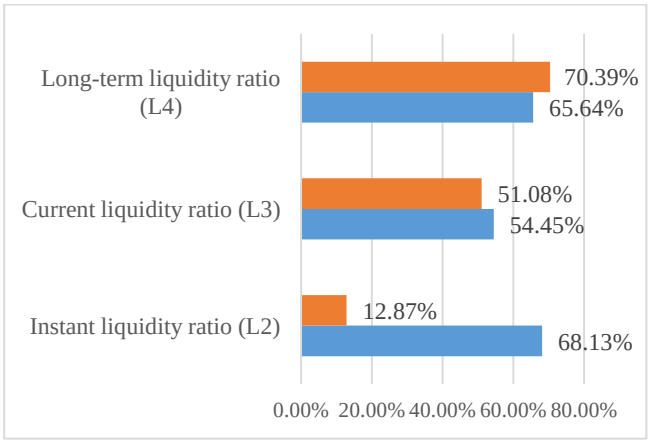

Fig. 8.The dynamics of changes in liquidity indicators

It can be seen that the priority of the bank's policy in 2018 shifted in favor of strengthening indicators of long-term and current liquidity, to the detriment of instantaneous. A previous analysis of assets showed that the bank's strategy focused on reducing excess liquidity, but the nature of financial flows is such that they do not change instantly. The development policy and the regulatory function of the bank have an effect on the change in cash flows gradually.

V. CONCLUSION

Commercial banks, acting as a key link in the banking system, have a wide range of opportunities for regulating cash flows in the business environment. Despite the fact that the main activity of the bank is to make a profit, the very nature of its work determines the performance of its regulatory functions.

The dynamic nature of the bank's activities leads to the fact that the structure of its liabilities and assets will be in constant change, and therefore both a balanced strategy for managing financial flows and a regular analysis of liquidity indicators are needed.

Using a comprehensive analysis of the structure of the bank's assets and liabilities, as well as calculating liquidity indicators, contributes to the emergence of additional tools for predicting the dynamics of redistribution of financial flows, both in individual industries and in the economy as a whole.

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