

# Banking liquidity as a leading approach to risk management

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**Abstract** For the modern model of the market there are inherent existence of both a set of possibilities and a large number of hazards that are waiting for economic agents and which are generated by the need to make decisions in the conditions of considerable uncertainty about the future. Liquidity risk is one of the central places in the system of bank risks, is closely related to solvency and financial stability, and therefore its management is an extremely important element of financial management of the bank.

This paper is devoted to the consideration of theoretical approaches to the management of bank liquidity risks, as well as understanding the risk of unbalanced liquidity and its place in the system of bank risks. In the course of the study, the essence of the concepts of uncertainty, risk as such, economic risk and its varieties, including banking is gradually clarified. We offer our own definition of "bank risk" and describe its essence. Based on the understanding of the concepts of bank risks, liquidity balance, bank liquidity, the essence of the risk of unbalanced liquidity is disclosed, its characteristics and main aspects of management are determined. In determining the risk of liquidity as a probability of a future state, when the bank may suffer losses due to the imbalance of demand for liquidity and availability at a certain point in time, we believe that the essence of liquidity management is reduced to the maximum balance of demand for liquid assets and their actual availability in a certain moment of time using special tools.

Our paper also reveals the mechanism of information influence on bank liquidity and its leading role in liquidity risk management processes. Moreover, the paper discloses the conceptual constituents of organizational support for bank liquidity risk management.

## 1 Introduction

In the economy of any country a special role is given to the flexibility of the systems for providing liquidity of commercial banks (Blanchard et al. 2010). The problem of obtaining additional costs, lack of income, profit, loss of solvency, financial stability due to unbalanced liquidity is equally relevant to any bank, and low efficiency of banking activities can lead to a reduction in the stability of not only certain financial institutions, the banking system of the country, but also the world banking system (Beck et al. 2013).

The urgency of our research topic and its leading role also lies in insufficient account of changes taking place with bank liquidity under the influence of globalization and the integration of world economic processes, modernization of the banking system and its growing social role. In the context of providing liquidity, particular attention needs to be paid to analyzing peculiarities of bank liquidity risk management and information and organizational support of the process (Tabak et al. 2012). Consequently, the multidimensionality, complexity and insufficient depth of elaboration of a number of theoretical and practical issues of ensuring liquidity of banks, practical significance of liquidity risk management and understanding of the peculiarities of information and organizational support of the process dictate the need for scientific understanding of these issues within the limits of this paper.

## 2 Leading aspects of bank liquidity

Liquidity is always defined as the basic criterion for ensuring the stability of a commercial bank (Allen and Wood 2006). This means that the timeliness and completeness of the performance of its functions banking institutions and banking system as a whole is largely dependent on their liquidity which is one of the common quality characteristics of the bank which, in turn, accounts for its reliability, stability and competitiveness. Thus, in the course of business, banks are constantly exposed to liquidity risk, ie the likelihood of the situation of mismatch between demand and supply of money and bank insolvency timely and fully meet its financial obligations (Berger et al. 1995; Padoa-Schioppa 2003).

Moreover, the negative impact on the bank's activity is both insufficient and excess liquidity. The low level of liquidity of the bank limits its solvency, leads to loss of customer confidence, reduced access and increase of the cost of external sources of financing for maintenance of liquidity, and, accordingly, financial problems. The excess liquidity of the bank indicates its inability to effectively manage available free resources and cause losses and capital losses. The excess liquidity of the entire banking system reduces the effectiveness of monetary policy instruments, and, accordingly, its effectiveness in achieving its goals. In addition, excess liquidity creates an inflationary shed in the country's economy. Management of bank liquidity, and hence liquidity risks, is one of the priority tasks of both commercial and central banks. This is due to the negative impact that both insufficient and excess liquidity has on both the level of the individual bank and the level of the entire banking system. Therefore, maintaining an optimal level of free banking liquidity is an important prerequisite for the development and sustainability of individual banks and the entire banking system, the stability of the national monetary unit and the reduction of inflationary processes in the country.

Considering the essence of the liquidity category and its relationship with the financial stability of the bank should be in the context of the fact that liquidity is one of its basic criteria, and liquidity management is an element of the overall financial management in the bank, carried out in order to ensure the reliability of the bank. We are inclined to think that "a reliable bank is a bank whose activities undoubtedly lead to the realization of the interests of specific (related to the bank) entities (Fetisov 1999). At the same time, in our opinion, the perception of the reliability of the commercial bank from different (subjective) positions is not the same (Table 1), and the assessment of the reliability of the bank is sufficiently subjective character depending on the degree of realization of the interests of a particular subject.

**Table 1.** The perception of reliability of the bank specific subjects

<b>Subjects</b>	<b>Perception of reliability</b>
Customers are individuals	Reliable - a bank that will not mislead and fulfill its obligations
Customers are legal entities	Reliable is a bank with which it is "comfortable" to cooperate, its main feature is the readiness for fast fulfillment of obligations and high professionalism of the personnel.
Bank owners	Reliable – such that will provide growth in the value of stock and stable high dividends
Employees of the bank	Reliable - one that has a high reputation and provides the opportunity to get decent wages
Another commercial bank (partner, counterparty)	Reliable is the one with which it is possible to fruitfully cooperate in a wide range of operations without fear of its financial status
Central bank (regulator)	Reliable - one that does not violate legislation and regulatory requirements

Source: Own results

After analyzing different approaches to understanding and defining the concept of "stability", we tend to his next interpretation: the economic stability of a commercial bank is its ability to achieve an equilibrium state in the existing economic environment and to maintain this state for a long time under the influence of the variables of external and internal factors.

In this case, the components of financial stability are the following ones: capital stability (stability of capital), market (commercial stability, organizational and structural stability, financial stability) .The financial stability of the bank should be understood as the stability of its financial position in the long run. It is reflected in such a state of financial resources, in which the bank, freely maneuvering with money resources, is able to ensure uninterrupted economic activity through their effective use.

Concerning the essence of the notion of liquidity, there is no single point of view both from the side of scientists and practitioners. However, in general, there are two main approaches to determining the essence of bank liquidity (Ivashchuk 2010). The essence of one view is to identify liquidity with a certain amount of cash

and other highly liquid assets available to the entity. The idea that the bank's liquidity lies in the ability and ability to repay liabilities on the basis of the use of assets is followed by G. Fetisov, J. Sinki, O.M and others, according to this viewpoint, the bank has sufficient liquidity if the amount of its cash, which it can quickly mobilize (through the sale of assets or raising funds), allow full and timely implementation of the liabilities (Fetisov 1999; Sinki 1994).

According to a different point of view, Prymostka (2012), or Kolesnikov and Krolivetskaya (1998), liquidity of the bank is interpreted as a qualitative characteristic of the subject of economic relations. Based on this position, bank liquidity represents its ability to timely pay for obligations on demand and on the onset of time-bound obligations. Without focusing on the assets of the bank, this view implies the possibility of using both existing assets of the bank and new liabilities for the purpose of full and timely fulfillment of obligations.

We also believe that a sufficiently complete liquidity problem is outlined in the Consultative Letter of the Basel Committee on Banking Regulation (Basel Committee on Banking Regulation 1997), according to which: "... when a bank has inadmissible liquidity, it can not obtain sufficient funds through an increase in liabilities or a quick the conversion of assets at a reasonable price" (Basel Committee on Banking Regulation 1997). The need to meet the bank's liabilities by maturity, as well as the provision of unexpected outflows of private depositors and the demand for loans, dictates the matching of mobilized liabilities and bank deposits by terms. Only in this case can be considered the normal operation of the bank and its stability. We agree with the Consultation letter of the Basel Committee on Banking Regulation, and we believe that bank liquidity equally relies on both the ability to realize assets and the ability to mobilize additional funds.

Thus, bank liquidity can be considered as the ability of a bank to timely meet the requirements of its obligations to all counterparties by mobilizing new or realization of available assets. The main difference between liquidity and solvency is that: liquidity is an opportunity for timely fulfillment of obligations; solvency - the ability to fulfill obligations in general.

It should also be noted that bank liquidity, as an ability to fulfill its obligations in a timely manner, has not only a current or operational aspect, but also a promising one. The perspective aspect of liquidity is explained by the fact that if the ratio of assets and liabilities of the bank on medium and long terms, respectively, involves the excess of assets over liabilities in the specified terms, then there is an opportunity to respond to these liabilities at the expense of existing assets as the maturity dates of assets and repayment of obligations. However, in case of exceeding the amount of assets over the amount of liabilities on any issue / repayment, we are not able to speak with full confidence about the availability of solvency, because the concept of solvency is general and characterizes the ability to fulfill all obligations on all terms. Therefore, we do not agree with the opinion of the authors, who believe that liquidity is more rapid operational, which characterizes a certain current state. In our view, liquidity is not limited to the current operational nature.

We also believe that the solvency of a bank is the ability to meet the requirements of all obligations. Therefore, there is no reason to say that one of the concepts of "liquidity" or "solvency" includes in itself another. They exist at the same time, independently and bear a different content load.

It is also necessary to note that everywhere in the world banking practice, liquidity is characterized as a flow or stock. This means that liquidity as a flow is analyzed in terms of dynamics, which involves an assessment of the bank's ability to change, over a certain period of time, the existing unfavorable liquidity level or to prevent its deterioration, the objectively necessary level of liquidity (keeping it) through effective management of the relevant articles of assets and liabilities, mobilization of additional borrowed funds, increase of financial stability of the bank by increasing incomes, and liquidity as a reserve includes a certain definition of the level of possibility Commercial Bank to fulfill its obligations to customers in a certain given time by changing the structure of assets in favor of highly items from existing in this area of unused reserves.

Despite the fact that the above is fundamentally true reflection of the difference between two types of liquidity, we consider it appropriate to offer a unique perspective on the types of liquidity, given the need for a deeper classification. Depending on the completeness of the obligations, there is a division of liquidity into three components: full (without violations of all agreements); Satisfactory (with violations only for administrative and economic payments) and unsatisfactory (in the presence of all other violations of obligations). In our opinion, it seems expedient to add to this classification too excess liquidity, and unsatisfactory liquidity divided into two components: critical and crisis. Taking into account the described comments, the author's classification of liquidity will look like it is presented in Table 2 that follows.

Continuing consideration of the essence of bank liquidity, it should also be emphasized that in order to maintain its financial stability, the bank should have a certain liquidity reserve to perform unforeseen liabilities, the appearance of which may be caused by changes in the state of the money market, the financial condition of the client or counterparty. In addition, the liquidity reserve is necessary to meet any unforeseen financial needs: conclusion of loan and investment agreements, execution of unexpected outflows of deposits, etc. Therefore, the creation of the necessary liquidity reserve while maintaining the profitability of banking operations is constantly relevant to the task of management of a commercial bank. At the same time, the solution to this problem is substantially complicated by the existence of many conditions of the bank's activity, which is precisely how to

take into account what is not always possible, such as demand for loans, early withdrawal of deposits by the population or significant unforeseen outflows on corporate accounts, and others.

**Table 2.** Types of liquidity of a commercial bank

	Static liquidity				Dynamic liquidity		
	Instantaneous	Current (up to 30 days)	Promising		Current (up to 30 days)	Promising	
			Medium-string (up to 180 days)	Long string (over 360 days)		Medium-string (up to 180 days)	Long string (over 360 days)
Excessive	Characterized by excess liquid assets that significantly exceed the required liquidity reserve						
Complete	Characterized by the availability of the necessary liquidity reserve, without violations of all transactions						
Satisfactory	Characterized by lack of necessary liquidity reserve, with violation only under administrative and economic agreements						
Critical	It is characterized by the full dependence on the mobilization of new funds on the market, as well as the untimely fulfillment of part of the obligations						
The crisis	Characterized by the complete lack of liquid funds and the ability to mobilize new funds						

Source: Own results

In connection with this, when considering the concept of liquidity, the term "liquidity risk" is often referred to, which essentially expresses the probability of a future such a state, when the bank can suffer losses due to the imbalance of demand for liquid funds and their availability at a certain point in time. Such losses can be attributed to both the shortage and the surplus of liquid assets, and the essence of liquidity management is reduced to maximally balancing demand for liquid assets and their actual availability at a certain point in time with the help of certain instruments. Therefore, we consider that from the point of view of risk management, the risk of liquidity of a bank can be considered as a risk of unbalanced liquidity.

In the broadest sense, the risk is the likelihood of a certain danger or failure. With this approach, many definitions of specific types of risk are consistent (Ozhegov and Shvedova 1994). The main thing that is emphasized by the authors in determining the essence of risk are:

- the possibility, the probability of an event occurring, that is, the uncertainty of the future result;
- connection of the above events with losses, losses, in general - with danger, failure.

Hence, analyzing the essence of risk, we distinguish 3 main points of its characteristics:

- the risk is connected with the development of events in the future;
- in theory, risk is uncertainty, the result of disclosure of which has a significant value for the subject;
- from a practical point of view, risk is the ability to reject a real outcome from the expected one.

### 3 Concept of banking liquidity risk management

Economic risk, with these characteristics, has a certain specificity, which is determined by the peculiarities of economic relations. It is possible to distinguish two main positions with respect to its essence. The first is that the risk is considered as the probability of suffering losses from the implementation of a decision, in the form of financial, material or other losses. Otherwise, the size of the expected profit and the size of its possible deviation is noted. In general, these positions have their origins, respectively, in the classical and neoclassical theories of risk.

Summarizing various definitions of the concept of risk in relation to economic relations, we note that everywhere, first of all emphasizes the situational nature of economic risk, that is, its connection with a particular situation of choice (Sinki 1994; Prymostka 2012; Vasylyeva et al. 2015; Starostina and Kravchenko 2004). And the differences are manifested in the fact that it is precisely to consider risk - only probable assessable situations or uncertainty in general.

Taking into account the above aspects of the risk profile as such, we suggest clarifying the definition of economic risk and setting it forth in the next revision. Economic risk is a situational characteristic of the activity of a particular economic entity, which reflects the full or partial uncertainty of its outcome, and the adverse (or favorable) consequences associated with this uncertainty. In our opinion, any event whose result is not predetermined from 100% probability, or event, the result of which it is impossible to predict, relate to the situation of risk. The risk is always associated with the uncertainty of the result: and it can be both less and more favorable.

Summing up the consideration of the content of the concept of economic risk should be noted as follows: firstly, that the risk is a situational characteristic of the activity of any entity, reflecting the full or partial uncertainty of its outcome, and associated with this uncertainty may be favorable (or favorable) consequences; and secondly, the risk has an influence on the choice and organization of the economic entity. Economic risk is characterized by the following characteristics: risk situation, degree of risk, risk taking, risk factors, risk, risk preparedness and management.

There are various risk classifications, including economic ones. From the point of view of the subject under risk, it is possible to highlight the risks of industrial enterprises, insurers, commercial and central banks, and others. Under bank risks, we propose to understand the situational activity of any bank, reflecting the full or partial uncertainty of its outcome and the possible adverse (or favorable) consequences associated with this uncertainty.

Banks bear various economic risks, between which there are significant differences, which, in the first place, relate to what kind of activity of the bank is associated with a specific type of risk. Regarding the subject of our study, the risk of unbalanced liquidity is directly related to the concept of bank liquidity.

We note that the most used and accented terms and definitions in the economic literature are the notion of liquidity, current liquidity and prospective liquidity. The stock characterizes the bank's liquidity at a certain point, its ability to respond to its current obligations, especially on demand accounts. As a stream, liquidity is evaluated either for a certain period or for a prospect (forecast). When considering liquidity as a flow, increased attention is given to the possibility of ensuring the rotation of less liquid assets into more liquid ones, as well as the inflow of additional funds. Thus, the greatest importance is acquired not only in the assessment of liquidity of the flow, but in the assessment of liquidity in relation to the forecast.

The definitions of "liquidity of the balance sheet" and "bank liquidity" are close to the above definitions. The liquidity of the balance sheet implies an instant assessment of the bank's position on a certain date. Therefore, the liquidity of the balance sheet is an integral part of bank liquidity. In addition, the balance of the commercial bank should provide the provision of analytical and synthetic data in the form of acceptable for the calculation of the bank's total liquidity. It should be noted that in the above definitions the emphasis is on the bank's performance of its obligations, that is, the lack of liquidity. However, the problem of excess liquidity, which is contained in underspent income, is equally important for the bank. Therefore, we see the actual presentation of the question of the very balance of liquidity.

In turn, the difference in approaches to understanding liquidity and unbalanced liquidity causes a difference in liquidity management and unbalanced liquidity. Therefore, in most cases, liquidity management in the literature suggests more frequent understanding of: *"the process of creating liquid assets to enable them to pay their obligations at reasonable prices at any time."* Accordingly, management of unbalanced liquidity should be considered not just as *"the process of creating, seeking liquid assets ..."* but as *"a rationally organized process of creating and using funds to better fulfill their obligations at reasonable prices at any time"* (Sinki 1994).

The risk associated with the maintenance of bank liquidity in the economic literature is usually called liquidity risk. Although there are several approaches to its interpretation that are based on the probability of a future need for a bank or the inability to quickly realize their own assets, or their sale at a significantly reduced price, or the purchase of overpriced liquid assets of other people (interbank loans), generally these terms are understood the probability that the bank will incur additional costs to overcome the lack of liquidity and the fulfillment of its obligations.

However, we believe that considering this type of risk only from the point of view of the lack of liquidity is one-sided because the bank may have both a shortage of liquid assets and their surplus. And both situations carry the bank every one of their threats. The risk of inadequate liquidity is the risk that the bank will not be able to meet its obligations in a timely manner, and for this purpose it will be required to disadvantage or sell some of its own assets, which is a loss, or acquire alien assets that bear additional costs. The risk of excessive liquidity is the risk of loss of income of the bank due to the excess liquid (that is, low income) assets, unjustified financing of low-income assets at the expense of the bank's fees for resources.

At the same time, both excess liquidity and excessive are basically two possible options for bank liquidity, therefore, we believe that it is methodologically more reliable to combine both the risk of redundant and insufficient liquidity into one - the risk of unbalanced liquidity. It also emphasizes the need to maintain a balance between the actual and necessary level of liquidity of the bank: that is, the bank should be liquid as much as is necessary, no more and no less.

At the same time, it should be noted that the risk of unbalanced liquidity does not exclude liquidity risk, and vice versa. However, in the latter case, the emphasis is still on the ability to fulfill their obligations under reasonable (rational) conditions. We are considering the risk of unbalanced liquidity, firstly, investigating the state of liquidity, caused by the conditions and activities of the bank in the situation of choice of alternatives, because the bank itself does not become liquid. Secondly, we associate the management of this type of risk with the uncertainty of future developments, which manifests itself as a possibility of rejection of the real result from

the expected with both negative and positive outcomes. Third, as a criterion for the quality control of this type of risk, we distinguish the economic effect, that is, the profit or loss of a commercial bank.

Consequently, the following definition of the risk of unbalanced liquidity can be made - this is a situational characteristic of the bank's activity, which reflects a complete or partial uncertainty of the future state of liquidity, and possible adverse (or favorable) consequences associated with this uncertainty.

In this case, the situation of the risk of unbalanced liquidity will be a combination of various circumstances and conditions that create the state of uncertainty of future liquidity in managing it. The level of the risk of unbalanced liquidity is the likelihood of the adverse or adverse effects of any liquidity management decision, as well as the magnitude of the possible additional revenue or expense arising out of these effects. Both the situation and the level of risk of unbalanced liquidity often coincide. However, the same factors influence the situation and the level of risk in different ways. The greatest impact on the emergence of the situation of the risk of unbalanced liquidity are: 1) intrabank factors (balance of assets and liabilities, actions of bank employees, implementation of other banking risks); 2) the activities of the central bank; 3) the macroeconomic situation in the country, first of all, the liquidity of its banking system; 4) the state of the world financial markets.

The level of risk of unbalanced liquidity is primarily determined by the following factors: 1) the consistency of the structure and quality of assets and liabilities; 2) state of the economy of the country and the actions of the relevant regulatory bodies; 3) stability of the currency market; 4) dynamics of money market rates; 5) fluctuations in the stock market; 6) stability and diversification of liabilities; 7) the quality and diversification of assets; 8) human factor; 9) the image of the bank.

Awareness of the risk of unbalanced liquidity is associated with the choice of protective or offensive approach to it. In the case of choosing a market-based approach to risk, we can talk about accepting the risk of unbalanced liquidity, for this the bank must be capable, that is, materially and professionally prepared for the given risk, as well as use the existing capacity to manage it.

Banking liquidity risk management is based on the information and organizational provision of this process. From the standpoint of risk management, it becomes important to realize that any process in a bank can be extremely effective only if there is complete information from the operators of this process. This postulate can be applied both to the procedure of analysis and forecast of liquidity, and to the management of the bank as a whole. The block devoted to the analysis and management of liquidity, should be, if not the main, the most significant block of a single banking information system, because it is on its basis that it is possible to effectively analyze and model the activities of the bank. Formally, the task of such a system (including, in the part of the analysis and forecast of liquidity risks) can be divided into several groups:

1. The first group of tasks is to view information aggregated by one, several or all sources of data according to the purpose of the bank. This group may include tasks for reviewing and analyzing the actual arrival / expenditure of funds, the status of customer accounts / customer groups, the total bank portfolio;
2. The second group combines the analysis tasks related to the transformation of data and calculation on their basis of different indicators: analysis of liquidity, assessment of the efficiency of investments in securities, analysis of the movement of funds on current accounts, calculation of the payment position of the bank.
3. The third group includes tasks that ensure decision-making. Such tasks should be complex and include elements of conditional simulation (assessment of liquidity taking into account the planned change in advertising strategy, interest rate policy of the bank on the market).

Thus, the task of building a liquidity management mechanism is nothing more than the formalization of the second and third groups of tasks described above by the bank management.

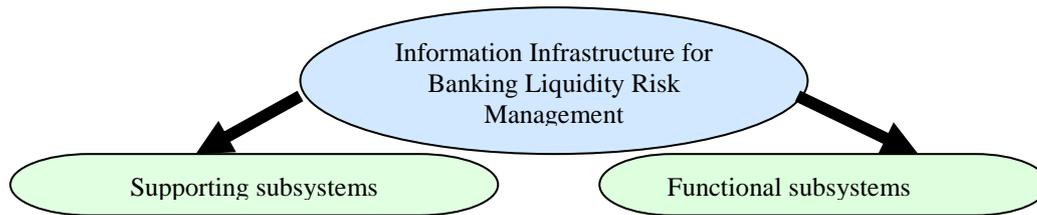
Information factors may have a different effect on the bank, and accordingly, on bank liquidity, ranging from negative (eg, payment crisis) to positive (economic upsurge). It is clear that the role of each of the factors on the liquidity of the bank may change, but in general, this process is rather schematic.

To understand the significance of the information infrastructure for managing bank liquidity risks, it is important that it provides:

- management of the bank with the reliable information necessary for revealing and leveling liquidity risks;
- remote access of customers to data on the results of the bank.

The most important conceptual components of the information infrastructure are bank internal reporting system, analytical system of the bank, banking information technology and integrated information flows on the basis of computers and communication networks.

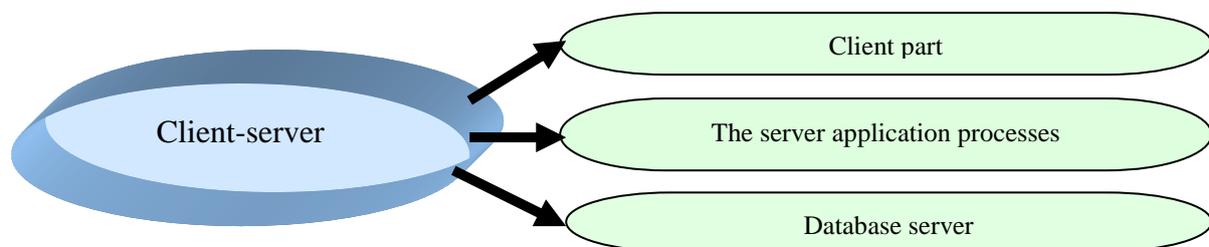
In addition to the conceptual components, the information infrastructure of banking liquidity risk management also contains support and functional subsystems that illustrate the Figure 1 that follows.



**Fig. 1.** Information Infrastructure for Banking Liquidity Risk Management  
*Source:* Own results

Supporting subsystems include technical equipment, communication systems, software, security systems, security and reliability. Functional subsystems implement banking services and perform any set of tasks to support bank liquidity.

We consider that the most suitable for medium-sized banks is the three-level architecture of the development of "client-server" technology, when there are at least three computers in the network: client part (workstation), application server and database server (Figure 2).



**Fig. 2.** The architecture of the development of "client-server" technology in the bank  
*Source:* Own results

User interface (user interface) is organized in the client part. The application server processes procedures for the client part. The database server serves the procedures that play the role of clients. The flexibility of such an architecture is to independently use and replace the computing and software resources at all three levels.

We also consider the perspective of grouping servers into groups (clusters) to increase the reliability of their work. In this case, the resources and load are distributed between the servers (nodes of the system) so that the user does not know exactly which server he is currently working on, and the use of hardware in this case is most effective.

The emergence of new types of data (for example, multimedia) creates new conditions for the banking liquidity risk management process.

We are convinced that banking technologies, based on which only classical logic (that is, algorithms for solving known problems), is not able to produce objective recommendations for making decisions in difficult situations under uncertainty of the initial conditions. Qualitative solution of these problems is possible only to technologies that can function like human intelligence, namely: to have the ability to acquire, adapt, modify and replenish information in order to solve problems whose formalization is complicated. Such systems belong to the category of artificial intelligence, which, depending on the current situation, are capable of developing algorithms for solving newly created problems in the area of bank liquidity risk management.

As risk management of bank liquidity is an integral part of the overall system of risk management, it is natural that organizational support is common to them. Let's consider its basic levels.

It is logical to consider the construction of a three-tier risk management system, which will include: risk management committee, risk management service (department), risk management workgroups. Present the author's vision of the role of these structural units and delineate the functions of risk management between them.

The Risk Management Committee is an advisory unit. It must include representatives of all divisions of the bank. In our opinion, the committee should be represented by three groups:

1. Standard (main working group) is a group representing all the most important divisions of the bank;

2. An expanded group is a group that is gathered in important (requiring special attention) or exceptional cases. An expanded group may include not only the heads of departments, but also their subordinates - the heads of structural divisions or ordinary employees of the bank, if necessary.
3. Specialized group - a group, which is going to solve narrow-profile problems of the bank, which do not require the collection of all specialists of the standard group. For effective work, only a part of the representatives of the standard group is going to be able to include some of the members of the extended group in this group for more profound work on the task.

The Committee forms a general risk management policy and solves the most complex and strategically important issues in the bank's operations, taking into account risk management requirements.

The risk management service (department) acts as an independent structural unit, which collects all developments in the field of banking risk management, conducts multidimensional analytical work on risk management statistics, and also develops and constructs the risk management methodology in accordance with changes in the conditions of the external and internal environment of the activity the bank.

In order to fulfill its functions, this service must build horizontal and vertical links with all structural subdivisions of the bank. The number of risk managers in the service should be determined by the management of the bank, based on the specifics and complexity of the directions of activity, the relationship between the structural units and the number and complexity of the actual risks for the bank. It is also necessary to realize that specialists whose orientation should be included in the structure of the risk management service: analysts-forecasters; analysts-planners; analyst-methodologists; analysts-statisticians; analytics-controllers, etc. In the risk management service, the function of managers can be allocated, respectively: directions of activity; functional directions; or types of risks. The service may include both specialists working in the bank and invited from the outside. This will combine the experience of employees who know the specifics of the bank's activities and those who can take an unbiased look at the problems in risk management. In turn, risk management working groups are competent to manage specialized, narrow risk profiles. These groups allow you to connect to risk management directly to the performers, which will help to use their professional knowledge and skills to manage risks.

## **4 Conclusions**

Thus, liquidity risk is one of the central places in the system of bank risks. From a practical point of view, this risk expresses the likelihood of a future situation in which a bank may suffer losses due to imbalances in demand for and the availability of liquid means of payment at a certain point in time. Such losses can be caused both by a shortage and an excess of liquid funds in the bank.

Therefore, the essence of liquidity management for the bank is to maximize the balance between demand for liquid assets and their actual availability at a certain point in time, as well as be able to keep this balance with specific tools. Excessive and excessive liquidity - in essence, there are two possible options for bank liquidity, therefore, it is methodologically correct to combine both the risk of redundant and insufficient liquidity into one - the risk of unbalanced liquidity. The risk of unbalanced liquidity should be attributed to internal banking risks, which should determine the appropriate choice of management tools for it. This type of risk has an impact on the choice of specific types of bank activities, including management of unbalanced liquidity.

In order to successfully manage bank liquidity risks, organizational support must be flexible and responsive to changing environment. There are a number of objective circumstances that make it necessary to review the organizational structure of bank liquidity risk management and to bring it into line with the bank's new tasks. These basic circumstances include the following aspects: changing the objectives of the bank and its strategy; change of directions and riskiness of operations carried out by the bank; change of bank operations technologies in connection with the progress of science and technology.

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