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## *Ensuring the financial stability of the company by minimizing liquidity risk*

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**Abstract:** *The article describes the essence, meaning and types of liquidity risk as one of the types of financial risk. Taking into account the liquidity factor, ways to determine the methodological basis for forming the required level of profitability of investment operations are proposed. Scientific and practical proposals were also given to ensure the financial stability of enterprises by reducing liquidity risk.*

**Key words:** *risk, liquidity risk, financial stability, asset, liability, risk-return, financial stability.*

### **INTRODUCTION**

Every business entity is subject to risks related to its activities, but the most dangerous risk among them is liquidity risk, which highlights the inability of a business entity to meet its payment obligations, leading to the erosion of its financial stability and ultimately pushing it towards bankruptcy.

When it comes to liquidity risk for a company, the simplest case is the possibility of the company not being able to meet its obligations. There are two important aspects to consider separately: liquidity and solvency. While these two concepts are closely related, they differ in essence. The first concept refers to potential capabilities to fulfill obligations. This concept becomes apparent when short-term liabilities exceed current assets. The second concept, on the other hand, illustrates the realization of those potential capabilities at a certain point in time.

In other words, solvency refers to the physical ability to pay money to fulfill obligations to customers on time. There is another view of solvency, which refers to the amount of possible losses on the sale of the company's assets, that is, it is assumed that the company will receive income less than the expected amount of income. Today, the importance of liquidity risk in the activities of economic entities, the causes of its occurrence and issues of prevention (minimization) have not been sufficiently studied. We will try to clarify this issue in the article.

#### Literature analysis

In the economic literature, there are different approaches to the concept of financial stability expressed by scientists. In particular, according to I.A. Pavlova, the essence of the financial stability of the enterprise is "its financial condition, in which the economic activity of the enterprise allows to ensure all its obligations" [1].

Russian scientists have widely studied financial stability as an object of research. In particular, by G.V. Saviskaya, financial stability is the ability of an economic entity to operate and develop in the changing

internal and external environment, to maintain the balance of its assets and liabilities, which is the guarantee of its constant solvency and optimal investment attractiveness. opinions have been put forward [2].

A group of scientists led by N.K. Vasileva, while analyzing the financial stability of enterprises, focused on the existing assets at the enterprise's disposal and their ratio with liabilities. By analyzing the financial stability of enterprises, it will be possible to assess the probability of permanent solvency of the enterprise. The main task of financial stability and liquidity risk analysis is to timely identify the risks that enterprises may face in their economic activities, as well as to find reserves required to improve the financial status of the enterprise and improve its solvency.

V.R. Bank defined the financial stability of the enterprise as the state of financial resources, their distribution and use, which ensure continuous operation under acceptable risk conditions, sufficient profitability and the ability to pay obligations on time [3].

A.D. Sheremet emphasized that the financial stability of enterprises is characterized by a satisfactory balance sheet structure and reflects the financial results of economic activity, and explained financial stability by comparing the assets and liabilities reflected in the accounting balance sheet of the enterprise and achieving positive financial results [4].

The interdependence of financial stability and liquidity risk is also visible in the work of I.A. Pavlova. In her opinion, the essence of the financial stability of the enterprise is such a financial state of the enterprise, in which the economic activity of the enterprise allows to ensure all its obligations. It is clear from this definition that when the size of assets in the enterprise is sufficient to cover liabilities, its financial stability is at the required level [5].

The financial stability and liquidity of enterprises were also discussed by our national economists.

In particular, T.S. Malikov evaluates the financial stability of economic entities in general (coefficient of autonomy, concentration of debt capital, coefficient of the ratio of debt and own funds) and relative indicators (coefficient of provision of reserves and expenses with equity capital, financial independence coefficient, maneuverability coefficient of equity) based on financial coefficients [6].

M.Q. Pardayev and B.I. Israilov interpret financial stability as the ratio of the company's own funds and all funds [7].

E. A. Akramov recommended the concept of financial stability and its indicators, and justified the factors affecting it. He also emphasizes that the indicator of financial stability is an indicator that represents the necessary level of financial stability of the enterprise and does not decrease [8].

In our opinion, the financial stability of the enterprise is its ability to operate and develop in a changing internal and external environment, to maintain a balance of assets and liabilities in order to maintain its constant solvency and investment attractiveness, under the conditions of an acceptable level of risk. It is the state of financial resources, which is based on the growth of profit and capital and ensures the development of the enterprise. The financial stability of the enterprise is formed in the course of its entire financial and economic activity and reflects a steady increase of income over expenses.

#### Analysis and results

Liquidity risk is a type of risk in which problems arise in the process of fulfilling financial obligations and payments on financial assets in the activity of Business Entities.

In addition, liquidity risk is associated with a decrease in the company's ability to fulfill its financial obligations (creditor debt to suppliers of goods, obligations on loans) on time and in full on a certain date.

There are two types of liquidity risk:

- Market liquidity risk is the inability of assets to be converted into money in time to fulfill obligations. In most cases, losses occur as a result of assets being sold at a discount. Assets are not converted into money at the required time due to the market situation, that is, the lack of demand for it;

- Balance sheet liquidity risk - occurs when the value of assets is insufficient to fulfill obligations.

Liquidity risk is closely related to the financial stability of enterprises.

The correct formulation of the financial strategy helps to increase the efficiency of the enterprises. Thus, financial stability directly depends on the sources of financing the enterprise's activities. In this regard, it should be noted that the financial stability of enterprises, which is considered the most important component of the economic system, is important for achieving sustainable growth of the country's economy. Because financial stability and its achievement serve as a guarantee of ensuring the ability of economic entities to operate and the basis of its strong position.

From this point of view, financial stability, determination of medium- and long-term financial capabilities of the enterprise are among the important economic problems. It is relevant to research the limits of the methods of assessing financial stability in the activity of the enterprise and the most effective use of their entire system, the algorithm of indicators and their interpretation, taking into account the characteristics of ownership and network.

According to Professor T. M. Malikov, the financial stability of economic entities is characterized by the following:

- financial independence from external debt sources;
- the ability of the business entity to use financial resources freely and effectively;
- stable presence of the amount of own funds necessary to ensure economic activity in the business entity [6].

Based on the analysis and assessment of the financial stability of enterprises, not only the effective formation, distribution and use of the financial resources of enterprises, but also the identification of risks that may arise in this process, and the minimization of their negative effects. The analysis of financial stability and liquidity risk during the analyzed period makes it possible to determine how well and timely the enterprises managed their financial resources to solve the following tasks:

- Ensuring the continuity of the high demand product production process;
- ensuring continuity of product realization;
- expansion and modernization of the production base on an innovative basis.

In analyzing the financial stability and liquidity risk of the enterprise, it is important to rely on financial coefficients that represent the state of financial stability. When assessing the financial stability of the enterprise and determining the level of risk through them, first of all, the liquidity indicators themselves, as well as a group of indicators (coefficients) reflecting profitability, solvency, profitability, assets and the use of the enterprise (share capital) is used.

The grouping of assets by the level of liquidity is presented in Chart 1.

In order to assess the company's balance sheet liquidity, the grouping of balance sheet asset and liability indicators according to the following two characteristics and their comparison allows to determine the level of liquidity risk:

- According to the level of decrease in liquidity (asset);
- By level of coverage period (liability).

Assets can be divided into groups according to the rate of conversion to cash and liabilities according to the repayment period (shown in Figure 1 (A1 - A4, L1 - L4)).<sup>1</sup>

When determining balance liquidity, balance asset and liability groups are compared. The conditions of absolute liquidity of the balance are as follows:

- $A1 \geq L1$ ;
- $A2 \geq L2$ ;
- $A3 \geq L3$ ;
- $A4 \leq L4$ .

<sup>1</sup> Vahobov A.A., Ibragimov A.T. Financial analysis. Textbook. T.: "Uzbekistan", 2002, 230 p.

If the first three inequalities above are fulfilled, then the balance is absolutely liquid. The fourth inequality gives the meaning of balancing, that is, the fulfillment of this inequality means that the enterprise has its own working capital, and we express it as follows:

$$OWK = SOF - FAI,$$

- Here:
- OWK - availability of own working capital;
- SOF - a source of own funds (the total of liabilities of the I-part of the balance sheet);
- FAI - fixed assets and investments (the total of assets of the I-part of the balance sheet).

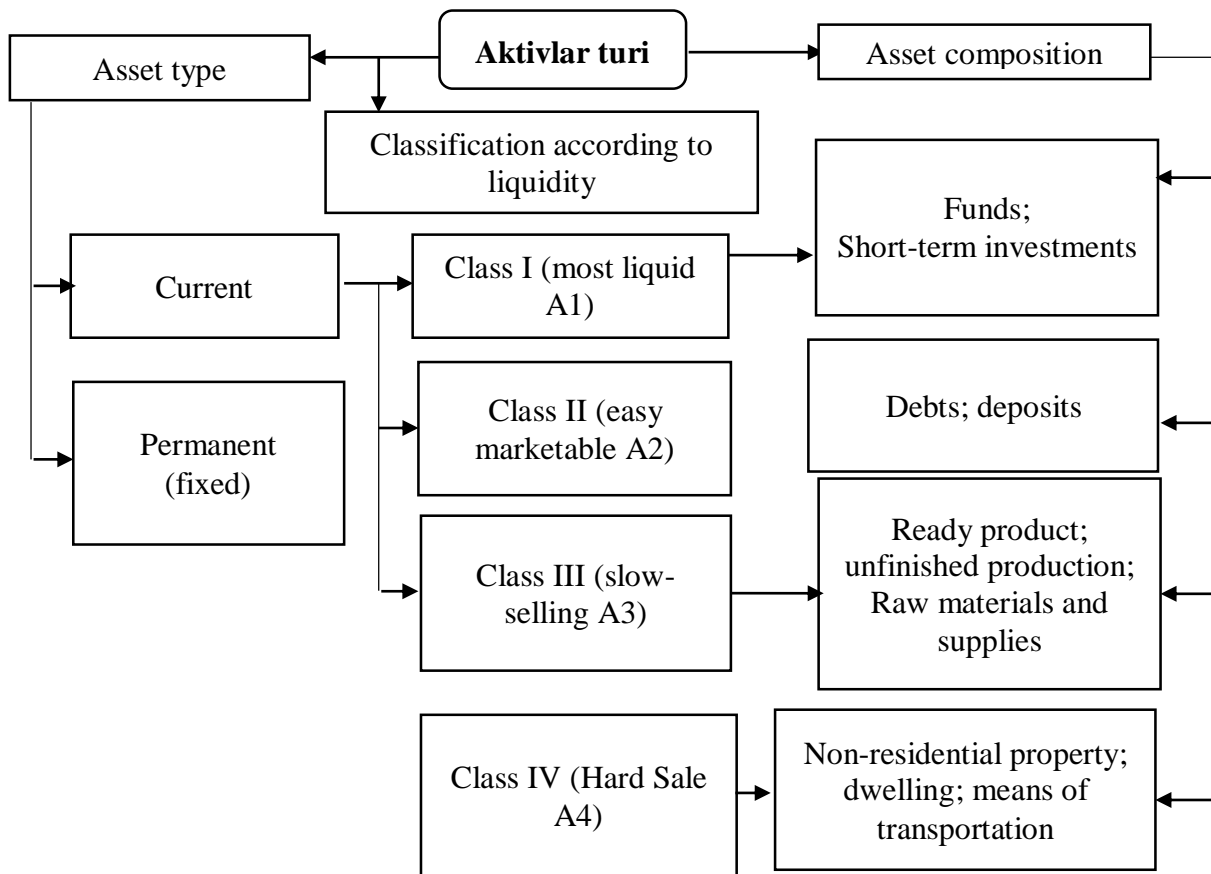


Chart 1. Grouping of enterprise assets according to the level of liquidity

If any of the above-mentioned inequalities deviates from the noted optimal option, then balance sheet liquidity differs from its absolute liquidity, and as a result, it indicates that the enterprise has a liquidity risk (Table 1).

Table 1

Assessment of liquidity risk in enterprises based on balance sheet liquidity

Types of liquidity position			
Conditions			
$A1 \geq L1; A2 \geq L2; A3 \geq L3;$ $A4 \leq L4$	$A1 < L1;$ $A2 \geq L2;$ $A3 \geq L3;$ $A4 \approx L4$	$A1 < L1;$ $A2 < L2;$ $A3 \geq L3;$ $A4 \approx L4$	$A1 < L1;$ $A2 < L2;$ $A3 < L3;$ $A4 > L4$
Absolute liquidity	Admissible liquidity	Impaired liquidity	Crisis liquidity
Liquidity risk assessment			
Risk-free zone	Permissible risk zone	Critical risk zone	Catastrophic risk zone

Theoretically, if there is a shortfall in one group of assets, it can be covered by another group of assets. But in practice, low-liquid assets cannot replace high-liquid assets.

- The comparison of A1-L1 and A2-L2 group of assets and liabilities reflects the current liquidity of the enterprise and indicates its solvency (insolvency) in the near future;
- The inequality A3-L3 reflects prospective liquidity and predicts the company's long-term solvency based on it.
- The liquidity of the enterprise's balance sheet is analyzed on the basis of traditional indicators of liquidity determination, and based on the obtained results, it is possible to determine to what extent the balance sheet meets all the criteria of absolute liquidity. As a result, at the beginning and end of the period, the enterprise can cover not only the obligations of the liabilities for any type of obligations recorded in the balance sheet, but also the following obligations:
  - Obligations arising from the manufactured goods (improvement of quality, advertising, high evaluation by consumers, improvement of consumption quality compared to competitors, etc.);
  - Obligations regarding service (timeliness and completeness of service, attractiveness of service, establishment of after-sales service, etc.);
  - Obligations regarding the price (attractiveness of the price when the goods are highly valued by consumers, high quality and full service, etc.), etc.

The methodological aspect of assessing the level of liquidity of investments requires such an assessment to be carried out using absolute and relative indicators.

The main absolute indicator of liquidity assessment is the possible period of realization of the existing investment object. This indicator is defined as follows:

$$TLP = C_p - T_p$$

TLP - total liquidity period of the investment object;

C<sub>p</sub> - the total period during which the investment object can be converted into cash, in days;

T<sub>p</sub> - the technical period of conversion of an investment object into cash with absolute liquidity, usually 7 days.

The main relative indicator of investment level assessment is their liquidity indicator, which is defined as follows:

$$ILI = T_p / C_p,$$

Here: ILI - investment liquidity indicator;

T<sub>p</sub> - the technical period of conversion of an investment object into cash with absolute liquidity, usually 7 days.

C<sub>p</sub> - the total period during which the investment object can be converted into cash, in days.

The methodological tool for forming the required level of profitability of investment operations, taking into account the liquidity factor, is based on the interdependence of the following indicators that determine the "profitability-liquidity" scale:

1. Determining the level of premium required for liquidity is determined based on the following formula:

$$P_l = \frac{TLP * RR_{al}}{360}$$

Here:

P<sub>l</sub> - the level of premium required for liquidity, in %;

T<sub>Lp</sub> - total liquidity period of the investment object;

RR<sub>al</sub> - the average annual rate of return on investment objects with absolute liquidity, in %.

The economic behavior of the investor, all other conditions being equal, is directed towards the selection of highly liquid investment objects, which allows him to maneuver with financial resources in the process of managing the investment portfolio. In order for an investor to be interested in choosing medium

and low liquid investment objects, he should have a certain incentive in the form of additional investment income. The lower the liquidity level (coefficient) of the investment object, the higher the amount of investment income or liquidity premium should be. We express this relationship by the following diagram:

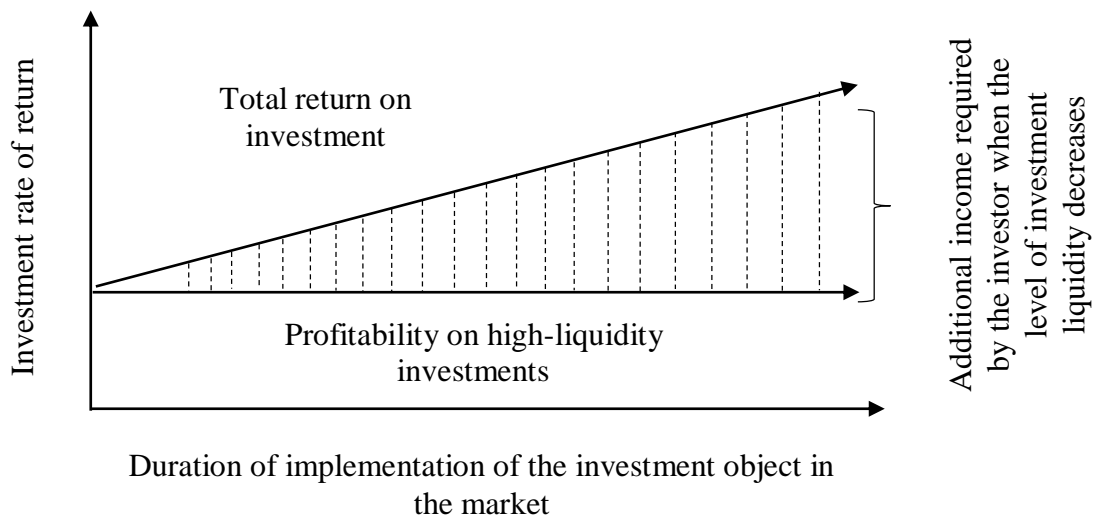


Chart 2. The effect of the level of liquidity of the investment object on the amount of investment income or liquidity premium

1. Taking the liquidity factor into account, the determination of the required total return level ( $p_{ti}$ ) is carried out on the basis of the following formula:

$$p_{ti} = RR_{al} + P_l$$

here:

$p_{ti}$  - the level of total profitability required, taking into account the liquidity factor;

$RR_{al}$  - the average annual rate of return on an absolutely liquid investment project (instrument), in %;

$P_l$  - the level of premium required for liquidity, in %.

The methodical tool for evaluating the value of funds, taking into account the liquidity factor, allows the formation of investment flows that provide a comparable and required level of liquidity.

Taking the liquidity factor into account, we use the following formula to estimate the growth value of funds:

$$FV_l = RR_{ar} * [(1 + RR_{al}) * (1 + P_l)]^n$$

Here:

$FV_l$  - the future (growth) value of a financial instrument (money) taking the liquidity factor into account;

$RR_{ar}$  - the average annual rate of return on an absolutely liquid investment project (instrument), expressed in decimal places;

$RR_{al}$  - average annual rate of return on investment objects with absolute liquidity, in %;

$P_l$  - the level of premium required for liquidity, expressed in decimal places;

$n$  - the number of periods during which each payment is made during the total stipulated period.

We use the following formula to estimate the current value of funds, taking the liquidity factor into account:

$$RR_{ar} = \frac{FV_l}{[(1 + RR_{al}) * (1 + P_l)]^n}$$

$RR_{ar}$  - the current value of money taking into account the liquidity factor (the average annual rate of return on an absolutely liquid investment project (instrument), expressed in decimal places);

$FV_l$  - the future (growth) value of a financial instrument (money) taking into account the liquidity factor;

$RR_{al}$  - average annual rate of return on investment objects with absolute liquidity, in %;

$P_l$  - the level of premium required for liquidity, expressed in decimal places;

$n$  - the number of periods during which each payment is made during the total stipulated period.

Example: A customer deposits 1000 USD in a bank for 60 days. If the yield to maturity is 1.5%, determine the total conversion period, the liquidity ratio of the investment, the liquidity premium rate, the total rate of return including the liquidity factor, and the future growth value of the investment.

Since the investment is set for 60 days, the total period during which the investment object can be converted into cash is  $C_p = 60$ . Then the total period of conversion  $TL_p = C_p - T_p = 60 - 7 = 53$  days,

$$\text{Investment liquidity indicator } ILI = \frac{T_p}{C_p} = \frac{7}{60} = 0,117.$$

The required liquidity premium level is as follows  $P_l = \frac{TL_p * RR_{al}}{360} = \frac{53 * 1,5}{360} = 0,221\%$  (the deposit must be paid after 60 days, i.e. the liquidity of the deposit is high, and the level of the liquidity premium is low).

The required total rate of return, taking the liquidity factor into account  $p_{tl} = RR_{al} + P_l = 1,5 + 0,221 = 1,721\%$ .

The term of deposit is 60 days, i.e.  $n = 60 \text{ days} = 0,167$  years, growth value taking the liquidity factor into account is  $FV_l = 1000 * [(1 + 0,015) * (1 + 0,00221)]^{0,167} = 1000 * 1,01724^{0,167} = 1002,85$  USD.

#### Summary

Therefore, the financial stability of enterprises is largely determined by financial ratios. The assessment and analysis of financial ratios further expands the assessment of absolute financial stability indicators of the enterprise, thereby helping to prevent liquidity risk.

To sum up, in the practice of Uzbekistan, in the practice of comprehensive study of the financial situation of economic entities, especially enterprises, the analysis of financial stability and liquidity risk in relation to each other is referred to in very few cases. We hardly find real analytical data based on the data of business entities in any source. Bu holat moliyaviy ko'rsatkichlarning yillar kesimidagi dinamik o'zgarishlarida ham kuzatiladi.

Therefore, when analyzing the risk of financial stability and liquidity in the enterprise, special attention should be paid to the following:

- in the calculations of indicators in printed sources, it is necessary to clearly indicate which forms and lines of financial statements the data is taken from. Through this, it is possible to ensure their accuracy and uniformity; it is necessary to develop a special guideline for choosing an enterprise in the national credit market, i.e. for making an appropriate decision by evaluating its financial condition. In this guideline, it is necessary to clearly define the necessary indicators that allow determining the financial condition of the enterprise based on factors such as the specificity of the enterprise's activity, the field of activity, and the lease term.

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