# CASH AND LIQUIDITY/LIQUIDITY AND LIQUIDITY RATIO

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***Abstract***

*The present paper aims to present the correlation as well as the differences between liquidity/cash and liquidity ratio in terms of economic entities.*

*Researches on this topic are based on the opinions of some specialists in accounting and in the economic-financial analysis, as well as on the national legal stipulations and the ones set out in the International Accounting Standards, the Financial report, respectively. The object of this paper is represented by the correlation between liquidity/cash and liquidity ratios representing the liquidity as current assets, assets implied in the determination of liquidity ratios.*

*The end of the paper consists of the conclusions drawn from the issues presented in the paper but also our views on this research topic.*

***Key Words:*** *cash, liquidity, current assets, financial statements, balance sheet.*

***Clasificare JEL :*** *M40, M41*

## 1. Introduction

The performance of any economic activity is primarily conditioned by the existence of liquidity in terms of cash in hand and bank accounts, as well as of cash derivatives: the survival of any company on the market depends on the claim receipt and on the payment of debts on schedule.

On the other hand, the notion of liquidity/cash is frequently confused with the notion of liquidity/cash ratio. It is true that there is a correlation between the two terms, i.e. the liquidity ratios are determined with the help of cash, but the liquidity of an economic entity regards the cash derivatives and the available cash, while the liquidity ratios refer to the assets of an entity most liquid/easily to be turned into cash, and indicate the possibility of an economic entity to take up its debts on time.

In a narrow sense, the cash contains cash in hand at the bank, letters of credit in domestic and foreign currency, sum-limited check-books, and in a broader sense, there are the securities likely to be converted into cash.

According to the implementing regulation of the Accounting Law no. 82/1991 in Romania, the liquidities include the following treasury elements: the cash in hand in domestic and foreign currency from the economic entity's pay-office; the cash in bank accounts or at other financial institutions, in domestic or foreign currency; the cheque-books with sum limit; the cash advances; letters of credit in domestic and foreign currency; amounts receivable, cash property items as checks and commercial paper received from payer (Government Decision no. 704/1993, entry into force of accounting Law no. 82/1991 and its implementing Regulation). [1]

- The cash in domestic and foreign currency from the economic entity's treasury is represented by the cash that the unit disposes of at a certain moment and through which payments with individuals or businesses are performed. The total of cash transactions, performed through supporting documents, is daily registered in the account book which provides the image of the collections, payments and the cash balance at the end of the day. The settlement between legal persons through cash presents an advantage due to the speed and security of the transactions (for the suppliers), but also the disadvantages due to the use of a great amount of cash and to the uncertainty of the physical transfer, adding the aspects regarding the financial indiscipline of the collection and payment transactions.
- The available cash in bank accounts or in other financial institutions, in domestic or foreign currency, is represented by scripted money, performing payments by bank transfer transactions with individuals or businesses. Within the total payment transactions, this type of settlement has the largest share. The cash from the bank accounts

may occur as time deposits, storing it for a fixed period of time, usually up to one year in return for an interest higher than the one obtained for the cash in the sight accounts. In the treasury management activity, we must consider the fact that the time deposits, once formed, can only be used by renouncing to the time interest in favour of the sight interest.

- The sum limited check books represent a special category of funds as valuable documents (checks) used for the payment of certain categories of services or material purchase. They are supplied at a special request made by the account owner to the bank, transferring the cash from the current account into a separate account, issuing a check book for the respective sum. After the holder fills out and issues the check book, the payee presents the schedule of the checks at its bank, depositing them for collection. The bank of the payee presents the value of the check the issuer's bank, which will discharge its customer's account.
- Letters of credit in domestic and foreign currency are funds held in an account separate from the current account, opened for a supplier, payments being made only to the respective supplier. Thus, based on a contract closed between the supplier and the customer, the transfer towards the supplier is made immediately after he submits the supporting documents to the bank and after the conditions stipulated in the opening letter of credit are being checked out. For the economic agent, i.e. the LC, the main disadvantage is that the respective sums are not interest bearing and are available only when the letter of credit is cancelled. But, for the supplier, the letter of credit established in his favour ensures the speed, certainty and security of settlements.
- The cash advances are funds allotted to certain individuals and businesses, authorized to use these sums for payments in the interest of the respective company. A feature of this category consists in the fact that the sums appear in the accounts of the advance holders from the moment of advancing to the moment in which the performed payments are settled.
- The receivables as checks and trade effects received from the payers and held to maturity or remitted to the bank for discount before the due date. They are financial values that are included in the category of liquidities, not in that of claims, due to the possibility of being immediately converted into cash.

In order to determine the liquidity ratio and solvency of an economic entity, we must resort to the economic-financial analysis, researching the results of the economic activity, based on the data obtained in the organizational links of the economy, factors that determined ways to improve these results in terms of resource efficiency, according to the purpose of the respective activity. [2]

The economic literature within our country and abroad consists of a diversity of views on the definition of liquidity.

Prof. Ioan Bătrâncea believes that the financial liquidity is a state of the financial balance that expresses the ability of short term payment by synchronizing the cash inflow and outflow during the financial activity. [3]

The British economists J. Fred. Weston and E. Brigham believe that liquidity represents the capacity of the company to honour its short term payment obligations, with a small maturity period. [4]

The IFRS norms state that the financial liquidity represents a mark of the entity's ability to refund the short term debts, measured by assessing the components of current assets and current liabilities. [5]

Liquidity refers to the ability of the assets to convert into money (http://conta.money.ro/dictionar_online_lichiditate.html). Thus, there must be a connection between the assets in the sense that one can determine how much of the asset value is liquid in the cash accounts and how many of the can immediately be converted into money/become liquid (stocks, claims).

An analysis of the company's view on liquidity requires the arrangement of the assets and liabilities according to the periods and their maturity, respectively, taking into account the short term treasury variation, i.e. to answer questions like: what is the period in which it has to pay a certain sum, when and under what conditions will it be able to sell an asset in order to obtain the financial resources it needs at a certain moment, etc.

## 2. Correlation between Cash and Liquidity

In order to establish the correlation between cash and liquidity, we need to talk about and analyse the liquidity ratios.

The liquidity ratio refers to the ability of the assets to convert into money. http://conta.money.ro/dictionar_online_lichiditate.html). Thus, there must be a connection between the assets in the sense that one can determine how much of the asset value is liquid in the cash accounts and how many of the can immediately be converted into money/become liquid (stocks, claims)

The analysis of the liquidity ratio distinguishes two types of situations, based on the observation of the bottom of the balance sheet (which marks out the operation cycle) and the top of the balance sheet (regarding the investment and financing cycles). We are interested in the operation cycle. Thus, for the bottom of the balance sheet, the following ratios will be calculated:

1. General ratio - Rlg:

$$R_{\lg} = \frac{\text{Current asset (less than 1 year)}}{\text{Short - term outstanding liabilities}} \quad (1)$$

This report allows us to check up if all the assets with a period of less than one year may cover the liabilities with a period less than one year, i.e. if they can be paid in due time.

2. Low ratio Rlr: or treasury ratio, expresses a company's liquidity, excluding the inventory from the analysis. This approach can be explained by the fact that the inventory level necessary to carry out the operation cycle under normal circumstances remains almost constant – if the activity profile, the production volume, etc do not change – because the inputs of raw materials, materials, etc will have to compensate for the output, the inventory level remaining almost unchanged. Hence, the inventory represents an asset that can be equated with permanent assets and therefore, they are excluded from the liquidity calculation. The formula is as follows:

$$R_{lr} = \frac{\text{Current asset (less than one year) - Inventory}}{\text{Short - term outstanding liabilities}} \qquad (2)$$

3. Quick ratio – Rli: determines the possibility to cover the short term debts/ liabilities with the most liquid assets of the company. This ratio is calculated using the formula:

$$R_{li} = \frac{\text{Cash and investment securities}}{\text{Short - term outstanding liabilities}} \qquad (3)$$

According to the literature, it is recommended that the quick has a value between 0,2 and 0,3 [6] (0,2 < RLi < 0,3), but there are authors which state that a value close to 1 is desirable, proving a good liquidity of the company. [7]

As noticed in formula 1 and 2, the liquidity ratios are determined based on the current assets of the company.

The national legal framework, defines the current assets as being those assets that: [11]

- Are expected to be created for sale or consumption in a normal operation cycle;
- Are mainly held for transactions;
- Are expected to be performed within 12 months from the balance sheet;
- Are represented by cash or cash equivalents whose use is not restricted.

The international general framework (IFRS, 2009) states on the restriction of the cash included in current assets: the restriction refers to the case in which the asset represented by cash or cash equivalents is modified or used for the settlement of a debt for a period of at least 12 months after the reporting period. [8]

The current assets include all operations and treasury assets whose period of liquidity is of one year [9], in other words, they represent the quantity of materials and financial assets at a certain moment in a patrimony unit. [10]

The category of current assets includes [11]:

a) inventory, including the value of services for which no invoice has been drawn;
b) claims;
c) *short-term investments;*
d) *cash and bank accounts,*

thus resulting the first correlation between cash and liquidities, the current assets, determining the liquidity ratios, according to the computing relations (1) and (2), which include the company's cash.

The second correlation results from the computing relation of the third liquidity ratio, relation (3), directly determined by the company's cash.

## 3. The Balance Sheet – basis in the determination of Liquidity Ratios

According to the article 1 of the accounting law, the following bodies are compelled to elaborate annual financial statements: the companies/enterprises, the national companies/enterprises, the autonomous administration, the national research development institutions, the cooperative enterprises, the public institutions, the associations and profit or non-profit legal persons, as well as individuals engaged in income-producing activities.

At the end of the financial activity, the legal persons must elaborate annual financial statements or simplified annual financial statements, depending on the size criterion set by OMFP no. 3055/2009. These are [11]:

- total assets: 3 650 000 Euro;
- net turnover: 7 300 000 Euro;
- average number of employees within the financial activity: 50.

The legal persons, that at the date of the balance sheet exceed the limits of two from the three criteria, will elaborate annual financial statements composed of: balance sheet, profit and loss account, changes in equity, cash flow, supporting notes to the annual simplified financial statements.

The legal persons that at the date of the balance sheet, do not exceed the limits of two from the three criteria, will elaborate annual financial statements composed of: a short version balance sheet, profit and loss account, supporting notes to the annual simplified financial statements. They can optionally elaborate the statement of equity changes and/or that of the cash flow. The balance sheet is part of the financial statements, being regarded as a financial statement that renders the equity through the difference between assets and liabilities, considering that the balance sheet provides information on the sums invested in the enterprise's resources, its obligations to the creditor as well as the owner's share in these resources. [12]

On the other hand, the balance sheet is the image of the financial position, reflecting the company's ability to adapt to environmental changes through economic controlled resources, financing structures, and economic-financial liquidity and maturity ratios. [13]

The balance sheet is considered „the synthesis accounting document that presents all assets, liabilities and equity at the end of the period", being considered „the tool by which the application of the accounting principle of the asset double representation is performed" [14]

Also, the balance sheet is considered the official document of the company's management, and as a financial document, it gives only little information on the technical side of the entity's activity, reflecting however the financial power, the strategy and tactics of an enterprise. [2]

The liquidity ratio that reflects an enterprise ability to meet liabilities with current assets is based on the assumption of continuing the operation activity and takes into consideration the accounting values of the assets.

The elaboration of this type of balance sheet specific to the static financial analysis is based on the classification of assets in the strict order of the liquidity ratios (shorter or longer than one year) and of the liabilities according to their maturity (shorter or longer than one year).

The structure of the financial balance sheet may be simplified as follows:

**Figure no.1.** Financial balance sheet

| Asset | Liability |
|---|---|
| **Improved fixed assets (with a liquidity ratio of more than 1 year)**<br>Tangible assets<br>Intangible assets<br>Inventory<br>Financial assets of more than 1 year<br>Claims of more than1 year | **Improved permanent capitals with a maturity of more than 1 year**<br>Equity<br>Provisions of more than one year<br>Medium and long-term loans |
| **Improved current assets (with a liquidity ratio of less than 1 year)**<br>Financial assets under 1 year<br>Inventory<br>Claims under 1 year<br>Short-term investments<br>Cash in hand | **Improved short-term debts with a maturity of less than 1 year**<br>Trade, tax and social debts<br>Provisions under 1 year<br>Short-term bank loans |

Analysing figure 1, we an notice the representation of the current assets in the balance sheet, i.e. they are arranged in order of the liquidity ratios, on the same level with the short-term debts, thus deducing the formula of the liquidity ratios and the direct correlation between the current assets, the liquidity ratio and the cash.

# 4. Conclusions

The liquidity of the economic entities, consisting of cash, cash equivalents and short-term investments are of great importance to the activity of the entities because, on the market economy, the most significant and visible side for each economic entity is its ability to pay, i.e. the possibility to honour its obligations in due time. Thus, the necessary of human and material resources must be modeled according to its possibilities to ensure the cash equivalent and to cancel its obligations to third parties.

An economic entity is considered to be out of cash when it cannot pay its debts in due time, debts assumed towards creditors, suppliers, etc, and the lack of cash rises from the fact that the period of use is longer than that of resources.

The lack of cash may have immediate consequences: the inability to perform purchases in optimal conditions; damage to the company's image due to payment delays; obligation of short-term loans, etc. all these consequences result in costs difficult to be accurately assessed.

Not collecting the claims means not carrying a contract, of course with negative consequences, and what is even more worrying is that because of unpaid bills, for which VAT has to be paid, as well as the profit tax after each financial year, led to an increased crisis of liquidities.

Hence, a vicious circle was created between the non-collection of claims, the increase of debts and the attempt to cover the liquidity needs by contracting loans, leading to the great indebtedness, which eventually lead to the cease of the operation cycle resulting in insolvency or even bankruptcy. And let's not forget, the entity was itself in debt being a client to other economic entities.

The determination of the liquidity ratios is of importance for an economic entity due to importance that liquidities present for the respective entity. In determining the three liquidity ratios, cash is critical, being part of the ratios' formula. Moreover, the third liquidity ratio, i.e. the quick ratio, is determined by the direct cash report to the short term debts.

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