# MEASURING FINANCIAL LIQUIDITY IN LOCAL GOVERNMENT – CASE OF POLAND

PAWEŁ GALIŃSKI

***Abstract:*** *The paper presents issues of measuring financial liquidity in local governments. First and foremost, the author shows core issues of financial liquidity in these units, especially its determinants which result from the specificity of the public finance sector. Key elements of a proper management in this field, especially goals, are indicated as well as liquidity risk. The paper indicates that some financial reports and their categories, which are used to assess this liquidity, may be misinterpreted. Furthermore, it is presented some aspects of financial liqudity in local government against the background of the legislation in Poland. Thus, there are indicated barriers which constraints the implementation of liquidity management in the overall system of local public finance there. Hence, measuring financial liquidity in local government should be adjusted to the character of these units. The author presents some major indicators which can be here applied. They are aim at analysing the coverage of due liabilities or short-term liabilities by the cash or assets which can be converted on demand without losses. It is also crucial to examine the significance of these liabilities in the aggregate debt. Furthermore, there are presented values of these measures in local governments in Poland between 2008 and 2013.*

***Keywords:*** *financial liquidity, local government, cash, indicators.*

***JEL Classification:*** *G32, H83*

## 1. INTRODUCTION

Financial liquidity is a key element of management both in commercial companies and in local governments. It is determined by a lot of issues and may affect the financial condition of entities which cooperate with local authorities. Because it concerns the units of the public finance sector it is tied with some legal aspects of their functioning. It means that the law can determine quantitative and qualitative conditions of this issue. Moreover, in comparison to commercial units there is different reporting system and the meaning of some financial categories. Therefore, it is crucial to properly measure financial liquidity in local governments in order to attain its goals. Hence, the aim of the article is to characterize issues of the proper assessment of financial liquidity in local governments. The author presents some indicators in this field and their value in Poland between 2008 and 2013.

## 2. ISSUES OF FINANCIAL LIQUIDITY IN LOCAL GOVERNMENT – THE LITERATURE REVIEW

It is commonly considered that financial liquidity is a precondition to ensure the entity an ability to meet its short-term obligations [13]. Thus, it is regarded as a capacity to generate cash flows in order to regulate maturing payments and cover unexpected expenditures [6]. The entity also ought to maintain sufficient cash to achieve the above goals. However, on the other hand, it should not have excessive level of cash, because the situation may indicate a mismanagement in this field. It consequently suggests a possible loss of investment opportunities [20]. Hence, it becomes very crucial to monitor this liquidity. Typically, it is calculated by comparing the current assets with the current liabilities.

In local governments there are timing differences with respect to cash receipts and cash payments, which have to be managed [2]. These types of units often receive their revenues in large instalments at infrequent intervals during the year. If revenues are received before they need to be spent, a local government has a positive liquidity or positive cash flow position. Nevertheless, excessive liquidity or „cash reserves" are valuable cushion against unexpected expenditures. This also imply a lower level of liquidity risk. In turn, if a local government has a negative cash flow and no cash reserves, it must either borrow money from a bank, issue some type of the security or receive the assistance within the public finance sector [18]. This situation may consequently determine a higher interest rate which increases debt servicing costs. Financial liquidity of local government is thus reflected in the context of its asset and asset-capital dimension. The first aspect concerns the ability of converting any asset category into the cash, whereas the second one the relations between assets and liabilities [19]. Within these dimensions local governments introduce relevant liquidity strategy. Among many types of this strategy are distinguished: conservative strategy and aggressive strategy. In the first, it is preferred the higher level of the cash (or quickly convertible assets), which influences the lower risk. However, the aggressive strategy is in the opposition to the previous and involves more profitable investing. Thus, the legal regulations might introduce the qualitative limitations in the field of the selection of investment instruments [22].

In literature, some issues are distinguished which affect the financial liquidity, such as: macroeconomic and geographical issues (external issues), local government system (external issues) and a situation of each entity (internal issues). Among macroeconomic issues there are economic condition of the country, as well as situation on the financial market (level of the interest rate, possibilities of issuing municipal bonds etc.) and in a banking sector.

In turn, geographical issues influence both the possibilities of creating revenues (location advantages), scope of the tasks and the risk of the activity. For those local governments that are located in geographical areas where they face a high probability of repeated natural disasters, there might be insufficient time to rebuild their pool of current assets. Hence, they may be forced to incure long-term loans or issue municipal bonds to pay for recovery efforts. Since the available cash would already be allocated to remove previous natural disaster effects, there would be little funds available for either maintaining existing public infrastructure or meeting other operating expenses (current expenditures) [5].

Among the external factors can also be highlighted conditions of local government activity that primarily result from the legal regulations. An important factors are therefore legally defined financial system of their revenues and expenditures, including their financial independence. This independence is characterized through the share of own-revenues (mainly local taxes or income from property) in their total revenues. It determines a size of the resources which can be invested and the investment instruments. In addition, the Ministry of Finance, or any other regulator, through its settings may intervene in this field. On the other hand, each local government has a direct impact on the functioning of their internal financial management system. Thus, the analysed liquidity is affected by the attitude of the authorities to improve the efficiency of the managed resources (financial strategy). The financial liquidity is also determined by the organizational and financial relationships with other entities (e.g. municipal companies) which might affect the volume of potential liabilities [8].

Therefore, the core issue of financial liquidity in local governments is the cash management. It is understood as the regulation of inflows and outflows of cash in order to optimize them as well as increase their profitability without limiting the activities and exposing the unit to additional risk. This management in local governments is additionally aimed at: minimization of the current level of the cash, maximization of the financial benefits of disposable funds and maintaining adequate cash levels in relation to current expenditures in the period. This is due to the fact that issues of financial liquidity of local governments are differently managed in comparison to the commercial entities. It results mainly from disparate accounting rules, in particular a significance of the balance sheet and its positions as well as the information they contain [7]. There are also different ways of generating revenues and the economic sense of receivables. Analyzing receivables it should be taken into account the mode of their collection. So, their appearance might imply the problems with the vindication (e.g. a collapse of an entrepreneur which did not pay a property tax). Thus, a decrease of the value of receivables often results from their redemptions (tax expenditures) but not from the legal execution [11]. Hence, the financial liquidity in local government mainly refers to forming relations between revenues and expenditures including receipts from issued debt and its repayment [4]. It is also crucial to define regular revenues – their types and periodicity.

These issues ought to be examined in the context of liquidity risk which is due to uncertainty in a financial entity's cash inflows to sustain its normal activities. Thus, local government might lose liquidity if its counterparties avoid doing business with or lending to it. It results from a fall in its credit rating or some other event or unexpected circumstances increasing cash outflows. It is also exposed to liquidity risk when financial market, which provides the capital, is subject to loss of liquidity. Moreover, liquidity risk tends to compound other types of the risk, e.g. credit risk, if shortages in cash positions cannot be offset by other resources of the capital. Therefore, it is difficult to isolate this risk and measure it precisely [14].

Nevertheless, in order to introduce effective liquidity risk management the entity should apply some proceedings, such as: create a sound governance framework, implement proper measures and reporting, use tactical controls, develop a crisis management process or perform ongoing reviews [1].

## 3. MEASURES OF FINANCIAL LIQUIDITY IN LOCAL GOVERNMENT AGAINST THE BACKGROUD OF THE LEGISLATION IN POLAND

The appraisal of the financial liquidity of local governments might be conducted by the analysis of some measures. As it was mentioned, it mainly concerns the evaluation of the share of current assets in current liabilities. This „current ratio" is complemented by the other detailed measures, such as „quick ratio", which is more rigorous indicator. It excludes inventory from the current assets [9]. The purpose of this indicator is to eliminate those current assets that for one reason or another may not be readlily or fully convertible into cash [10], as well as their conversion lead to extra costs. This, in turn, decreases the efficiency of the current asset management. As a result, they indicate unit's ability to meet short-term obligations [12]. In some cimrcumstances, especially in trend analysis, it can be applied the analysis on the share of cash in current assets. Moreover, it is useful to examine the qualitative analysis of the components of current assets and liabilities in order to modify the above ratios [15]. It is determined by the characterized specificity of local government which requires to search for other measures of financial liquidity adopted to the public finance environment. Because it is considered in the context of current inflows and outflows of the cash in the unit, the share of the free funds in due liabilities can be examined. However, it may cause some difficulties due to the sense of this categories. In Poland, there are some legal definitions of free funds and other meaning in the literature. Article 48 (sections 3 and 4) of the public finance act of 2009 states that they include resources that are at the disposal of the unit, which are not spent on a specific date for the execution of tasks and its current activity and are in the national currency. It means that an entity may use them at any time they are required at a predetermined value. In turn, article 217 (section 2) of this act describes them as a cash surplus on the budget account of a local government, which stems from the settlement of outstanding securities, loans and credits from the previous years [16]. By contrast, in literature there are distinct definitions of free funds, e.g. as the difference between total revenues and current expenditures less debt service expenditures and payments under local government guarantees. These definitions indicate that financial liquidity is not the legal but economic category and should be adjusted into the specificity of local government structure and the activity in the country. In literature, measuring of financial liquidity is also perceived by the value of funds statement, i.e. current assets less current liabilities (working capital) [3]. However, due to the mentioned specificity of public sector financial reporting system this kind of analysis might cause some inadequacies.

In Poland, the Ministry of Finance issues study on the indicators to estimate the financial situation of local governments. In this report is indicated that the higher share of free funds and capital revenues in capital expenditures is, the lower liquidity risk appears. It is due to excessive debt servicing costs [21]. However, this indicator does not refer to the current cash position or the level of current liabilities. Therefore, this type of ratio in a greater extent indicates an ability to finance investment projects.

Taking into consideration the above findings some main issues should be studied in the process of measuring the financial liquidity in the unit. Firstly and foremost, the level of the coverage of both due liabilities and short-term liabilities (due liabilities, short-term securities and credits) by cash and deposits on demand. They indicate the ability to repay these obligations on demand without potential loss of funds due to current assets conversion. Furthermore, the share of both due liabilities and short-term liabilities in the debt ought to be examined. This analysis may in turn show the significance of debts due in the aggregate debt. So, it determines the cost of debt service.

It should be mentioned that in some studies level of financial liquidity in local government is measured by means of indicators relating total revenues (or current revenues) to total expenditures (or current expenditures). However, it seems to be more the analysis of the solvency rather than the liquidity. Although they indicate abilities to finance the activity of the unit, they do not examine these current assets, which can on demand cover due liabilities without bearing additional costs. So, it is difficult to assess the level of cash which is needed for daily operations.

## 4. FINANCIAL LIQUIDITY OF LOCAL GOVERNMENT IN POLAND BETWEEN 2008 AND 2013 - RESEARCH FINDINGS

In 2008 in Poland in local government the ratio of the coverage of due liabilities by cash and deposits on demand was 86.0. However, in 2013 it decreased to 30.0. It resulted from the fact, that the level of cash dropped from 40.1 mn PLN to 9.2 mn PLN, whereas deposits on demand declined from 14.5 bn PLN to 11.8 bn PLN. On the other hand, between 2008 and 2013 due liabilities surged from 168.7 bn PLN to 395.2 bn PLN, while short-term securities and credits decreased from 639.5 mm PLN to 304.6 mm PLN. It was accompanied by the growth of total debt from 28.8 bn PLN to 69.2 bn PLN [17]. The decrease of significance of short-term debt was determined inter alia by the preparations of local governments into the implementation of a new debt ratio, which operates since 2014. It is preferred to decline a share of debt instalments in total revenues. Therefore, local authorities may prolong debt repayment period in order to diminish current debt service. It should be mentioned that at the end of 2013 there were no liabilities in the form of short-term securities in relation to 2008. Furthermore, in 2013 the share of due liabilities in the debt was the same as in 2008 (table 1).

**Table 1** Indicators of financial liquidity in local government in Poland between 2008 and 2013

| Indicator | 2008 | 2011 | 2013 |
|---|---|---|---|
| Cash and deposits on demand in due liabilities | 86.0 | 77.1 | 30.0 |
| Cash and deposits on demand in short-term liabilities | 18.0 | 15.2 | 16.9 |
| Share of due liabilities in the debt (%) | 0.6 | 0.3 | 0.6 |
| Share of short-term liabilities in the debt (%) | 2.8 | 1.3 | 1.0 |

Source: [17]

The low level of the share of due liabilities in the debt of local government does not indicate a growing financial liquidity risk. Moreover, the activity of these units should not negatively affect the functioning of commercial companies which cooperate with them. Apart from that, in 2013 in Poland in local governments there were no deposits from the other entities. However, between 2008 and 2013 term deposits of local governments decreased from 3.3 bn PLN to 1.2 bn PLN [17]. It means that their cash needs were increased.

## 5. CONCLUSION

Summarizing the above findings it is seen that measuring financial liquidity in local governments should be tailored to the specificity of the activity of these entities which operate within public finance sector. In some cases, as it was characterized, it cannot be adopted solutions introduced in the commercial sector. In turn, some financial categories included in the law are often applied differently in various contexts. Therefore, in local government financial liquidity is not a legal issue, but the economic concern. In the process of its measure, due to the goals, both cash position and significance of some categories of short-term liabilities ought to be exhaustively analysed.

Although between 2008 and 2013 in Poland the cash and deposits on demand in due liabilities in local governments decreased considerably, the share of due liabilities in aggregate debt was stable. On the other hand, there was not such a large fall of the coverage of short-term liabilities by the cash and deposits on demand. Moreover, the short-term liabilities in total debt decreased. It resulted from the change in the structure of short-term liabilities and the growing importance of trade credit. Therefore, in practice the consequence of this analysis could be the appraisal of the costs of short-term liabilities servicing.

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**Paweł GALIŃSKI, Ph.D.**
Univesity of Gdańsk, Faculty of Management, Department of Finance and Financial Risk
ul. Armii Krajowej 101, 81-824, Sopot, Poland
e-mail: p.galinski@wp.pl