FINANCIAL STABILITY OF RURAL MUNICIPALITIES IN POLAND’S LUBLIN VOIVODESHIP IN 2016-2020

The stability of public services and the financial situation of local governments has a significant impact on a nation’s economic development. It also affects the long-standing process of political reforms aimed at promoting the efficiency of public sector units, their balanced budgets and financial stability. It is a concept defined in different ways, which is due, among other things, to its multifaceted nature and the lack of precisely defined measures to assess this phenomenon.

The main objective of the paper was to assess the financial stability of rural municipalities in Poland’s Lublin voivodeship in 2016-2020. Within the framework of the main objective, ratio analysis and survey research was conducted. The paper was based on the study of literature on the subject, reports on the implementation of budgets in the studied municipalities published by the Regional Chamber of Accounts in Lublin, and a survey questionnaire.

Based on the analyses, it was found that the studied municipalities in 2016-2020 recorded sustainability in terms of fiscal policy, and a stable level of financial liquidity and debt, albeit with a relatively low level of revenue independence. The crisis in 2020 caused by the Covid-19 pandemic caused a significant increase in the current expenditures of local government units compared to revenues, which were less than planned, although it did not significantly worsen the financial performance of the surveyed municipalities. In the opinion of the respondents (heads of rural municipalities), the vast majority of rural municipalities in the Lublin voivodeship were financially stable and the Covid-19 pandemic generally did not have a significant impact on their levels of stability.

Keywords: financial stability, rural municipalities, ratio analysis, financial liquidity

JEL codes: H71, H72

Introduction

One of the most important concepts in many academic fields and disciplines, most notably in economics and finance, is that of stability. In economic literature, stability is generally considered in several contexts:

- microeconomic (individual stability of an entity, institution, market) and macroeconomic (systemic stability, i.e. the entire economic system);
- static (current state) and dynamic (as a certain process of seeking balance);
short-term and long-term (short-term and long-term stability). In financial literature, the concept of financial stability was probably first used in 1994 by the Bank of England, to describe the objectives of central bank activity not related to ensuring price stability or the efficient functioning of the financial system. Over time, a number of terms and characteristics of financial stability have emerged in the financial literature. Financial stability should be perceived not only as the absence of crisis but, first and foremost, as a certain constant process of seeking and striving for equilibrium. It is a state in which a certain economic system performs its functions in a continuous and effective manner, even when there are unexpected and unfavourable disturbances of a significant scale. Therefore, maintaining the stability of the financial system is a necessary condition for the smooth functioning of the market economy and economic growth. Some authors also emphasize the close relationship between stability and liquidity and define financial stability as the absence of tendency to loss of liquidity and, consequently, to insolvency.

In the context of local government, financial stability is most often identified with the ability to settle liabilities (fiscal sustainability), and the ability to finance its own tasks and effectively meet the needs of the local community. Therefore, it can be stated that financial stability is the state of:

- carrying out transactions related to the tasks of the unit with the guarantee that they will be paid on time and not adversely affect the budget,
- enabling the realisation of certain functions set for the unit,
- efficient allocation of financial resources,
- the effective identification and management of risks.

The financial stability of local government units depends mainly on a properly constructed financing system, and therefore the source of the weakness of local government finances may be a shortage of funds, as well as the lack of a rational system of managing them in accordance with the theory of sustainable finance. The public sector entity is financially

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5 J. Osiński (red.): Raport o stabilności systemu finansowego. NBP, Warszawa 2016, p. 5.
sustainable when it can generate sufficient income to perform its core functions and deliver services at an acceptable level\textsuperscript{12}.

There is no unequivocal definition of financial stability in Polish legal regulations, although the Public Finance Act contains some references to elements allowing for its preservation (Art. 217, 222, 242, 243, 254, 260) \textsuperscript{13}. From the point of view of measuring financial stability in local government units, the determination of the individual debt ratio (Art. 243), which is used to control the entity in meeting its obligations on an ongoing basis, is important. It is worth emphasizing that in recent years the method of its calculation has been subject to gradual changes aimed at strengthening financial security, and thus increasing the financial stability of local government units.

As far as municipalities are concerned, financial stability is sometimes equated with maintaining a balanced budget, i.e. matching budget revenue with expenditures\textsuperscript{14}. In the absence of such a match, one speaks of financial destabilization of the unit, which is conditioned by internal factors, associated with dysfunctions in the conduct of financial management by local authorities, as well as external factors, such as instability of economic conditions, or limitations imposed by the state in the scope of financial independence of the unit\textsuperscript{15}.

To sum up, three important dimensions of financial stability of local government units can be distinguished, i.e. revenue-related (consisting in financing the unit's own tasks), service-related (providing public services at the level expected by citizens) and debt-related (connected with settling liabilities)\textsuperscript{16}. The lack of an unambiguous definition of this concept, as well as a number of financial and non-financial factors influencing the financial stability of local governmental units, causes methodological difficulties in its measurement and the assessment of the obtained results. In connection with the above, addressing this issue seems to be important, the more so in that it does not receive enough attention in the literature.

**Material and methodology of research**

The main objective of the study is to assess the financial stability of rural municipalities in Poland’s Lublin voivodeship in 2016-2020. The selection of this voivodeship was deliberate, dictated by the fact that it is one of the poorest regions of Poland, characterized by a low level of development and economic potential. The Lublin voivodeship is also the region with one of the highest unemployment rates in Poland. In December 2020 the registered unemployment rate was 8.2\%, while the national average was 6.2\%. To achieve the objective, the method of literature analysis and critique was used, as well as a ratio

\begin{itemize}
  \item \textsuperscript{12} Recomended Practice Guideline. Reporting on the Long-Term Sustainability of an Entity’s Finances, International Public Sector Accounting Standards, International Federation of Accountants, New York 2015, s. 207
  \item \textsuperscript{13} Ustawa z dnia 27 sierpnia 2009r. o finansach publicznych, Dz. U.2009 Nr 157, poz. 1240, art. 243 ze zm.
  \item \textsuperscript{14} M. Kosek- Wojnar: Pożyczki z budżetu państwa jako instrument stabilizacji finansowania zadań jednostek samorządu terytorialnego. Finanse, Rynki Finansowe, Ubezpieczenia 84(2), 2016, p. 30
\end{itemize}
The selection of ratios to determine financial stability was purposeful and resulted from the availability of empirical data. The selected ratios made it possible to characterise four areas of financial stability: budget balance, financial independence, short-term solvency and long-term solvency (Table 1).

### Table 1. Selected measures for assessing financial stability of rural municipalities in Lublin voivodeship

<table>
<thead>
<tr>
<th>Lp.</th>
<th>Name of the ratio</th>
<th>Structure of the ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total revenue to total expenditure ratio</td>
<td>total revenue / total expenditure</td>
</tr>
<tr>
<td>2</td>
<td>Coverage ratio of current expenditure to current revenue</td>
<td>current revenue/current expenditure</td>
</tr>
<tr>
<td>3</td>
<td>Revenue independence ratio</td>
<td>own revenue / total revenue</td>
</tr>
<tr>
<td>4</td>
<td>Operating surplus to total revenue ratio</td>
<td>operating surplus/total revenue</td>
</tr>
<tr>
<td>5</td>
<td>Self-financing ratio</td>
<td>(operating surplus + property revenue)/property expenditure</td>
</tr>
<tr>
<td>6</td>
<td>Cash-based liquidity ratio</td>
<td>realized budget incomes and revenues / realized budget expenditures and outgoings</td>
</tr>
<tr>
<td>7</td>
<td>Accrual-based liquidity ratio</td>
<td>(realized budget revenue + income + receivables) / (realized budget expenditures + outgoings + due liabilities)</td>
</tr>
<tr>
<td>8</td>
<td>Total liabilities to total revenue ratio</td>
<td>total liabilities/total revenue</td>
</tr>
<tr>
<td>9</td>
<td>The ratio of share of due liabilities in total liabilities</td>
<td>payable liabilities/ total liabilities</td>
</tr>
</tbody>
</table>


The study covered all rural municipalities in the Lublin voivodeship, i.e. 165 units. The time scope of the study covered the period 2016-2020. The study took into account financial data contained in annual reports on the execution of budgets of local government units published by the Regional Chamber of Accounts in Lublin.

The ratio analysis was complemented by the obtained opinions of the heads of rural municipalities in the Lublin voivodeship concerning the assessment of the level of financial stability. Research using the diagnostic survey method was conducted in 2021 among the representatives of the executive body of rural municipalities (heads of rural municipalities). The CATI-computer-assisted telephone interviewing technique was used. Answers to the questions were given by heads of 71 rural municipalities, which accounted for 43% of all units of this type in the studied voivodeship.

### Results of the survey

The analysis of stability of the surveyed rural municipalities in the Lublin voivodeship began with the dimension of budget balance and financial independence (Table 2). First, the ratio of revenue to expenditure of the surveyed municipalities was determined. A
The predominance of expenditures over revenue was found in 2017, 2018 and 2020, while the opposite situation was found in 2016 and 2019. In the period under study, a decrease in the analysed ratio by 7.23 p.p. was recorded, which is an undesirable situation. The lack of coverage of all expenditures with the achieved revenue in 2020 was caused, among others, by their increase caused by the Covid-19 pandemic.

Analysing the degree of coverage of current expenditures with current revenue in the surveyed municipalities found that in each of the studied years this ratio reached a value above 100%, which means that current expenditures were covered with current revenue. This proves the ability to generate an operating surplus, and thus the financial independence and sustainability of the fiscal policy of the studied municipalities. The decrease in the analysed ratio in 2020 in relation to 2019 was caused by a higher increase in current expenditure, including expenditure on counteracting the effects of the pandemic (increase of 14%), than current revenue (increase of 6%).

Between 2016 and 2020, the average value of the revenue independence ratio was relatively low at 28.23%. It should be noted that own revenue comes from sources located on the territory of a given local government and its level results from the internal economic potential of the unit. Most municipalities in the Lublin voivodeship (94 municipalities) are small, so-called "liliput" municipalities, where the population does not exceed 5,000, which is reflected in the level of own (self-generated) revenue. The highest level of independence was recorded in the year 2020, when 30.13% of all revenue of rural municipalities in the Lublin voivodeship was self-generated revenue. It is worth noting that in that year, 56 out of 165 rural municipalities had a higher-than-average level of the analysed ratio. The highest revenue independence was recorded in Puchaczów municipality - 61.96%, which is the richest municipality in the Lublin voivodeship with a large number of business entities, while the lowest was in Aleksandrów municipality - 15.0%. In 2020, compared to 2016, an increase in financial independence of more than 6.5% was found, which should be evaluated positively.

The ratio of the share of operating surplus, which is the difference in the current part of the budget (current revenue - current expenditure) in the revenue of the studied municipalities, determines the level of budget flexibility. In the analysed period this ratio was at a relatively stable level (about 8-9%), except for the last year, when a significant decrease to 3% was recorded. In 2020, the situation of local government units was characterised by uncertainty, especially after the temporary collapse of PIT revenues in April 2020, which was caused by the COVID-19 pandemic and the possibility of a later payment of tax advances, as well as the application of tax reliefs, which are a form of assistance to entrepreneurs. Nevertheless, the positive value of the analysed ratio shows a certain "fiscal slack", indicating that the units generated a positive operating result, thus had financial surpluses, which they could allocate e.g. to early repayment of liabilities or to implementation of projects serving the needs of the local community.

The self-financing ratio, which informs about the degree of financing investments with own funds, ranged from 77.71% in 2020 to 128.27% in 2016. It is worth noting that in rural municipalities in Lublin voivodeship over the course of the studied years, there was an increase in property revenue (the highest in 2020 - by more than 29% compared to 2019). This means selling off assets, and this may be a worrying phenomenon. The decrease in the self-financing ratio in the last year was caused by a decrease in the level of operating surplus with a simultaneous increase in property expenditure by 20%. This
indicates that investments are financed to a lesser extent with own funds. It should be noted that the increase in property expenditures was due to government support for investment tasks through the establishment of the Government Fund for Local Investment (RFIL) in July 2020, a programme under which government funds went, among others, to municipalities for investments close to people. The support did not have to be paid back, and came from the COVID-19 Fund\textsuperscript{17}.

<table>
<thead>
<tr>
<th>Name of the ratio</th>
<th>Year 2016</th>
<th>Year 2017</th>
<th>Year 2018</th>
<th>Year 2019</th>
<th>Year 2020</th>
<th>Change 2016-2020 (p.p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue to total expenditure ratio</td>
<td>102,80</td>
<td>99,79</td>
<td>95,59</td>
<td>100,96</td>
<td>95,57</td>
<td>-7,23</td>
</tr>
<tr>
<td>Coverage ratio of current expenditure to current revenue</td>
<td>110,17</td>
<td>109,91</td>
<td>110,46</td>
<td>110,9</td>
<td>103,58</td>
<td>-6,59</td>
</tr>
<tr>
<td>Revenue independence ratio</td>
<td>28,27</td>
<td>27,07</td>
<td>27,08</td>
<td>28,6</td>
<td>30,13</td>
<td>1,86</td>
</tr>
<tr>
<td>Operating surplus to total revenue ratio</td>
<td>8,91</td>
<td>8,54</td>
<td>8,39</td>
<td>8,74</td>
<td>3,00</td>
<td>-5,91</td>
</tr>
<tr>
<td>Self-financing ratio</td>
<td>128,27</td>
<td>98,51</td>
<td>81,06</td>
<td>105,03</td>
<td>77,71</td>
<td>-50,56</td>
</tr>
</tbody>
</table>

Source: authors’ own work based on data from the Regional Chamber of Accounts in Lublin.

Table 3 presents selected ratios for the studied municipalities characterizing short-term solvency – which is a synonym of financial liquidity – and long-term solvency – which is a unit’s ability to meet all financial liabilities in future periods. Upon analysing short-term solvency of rural municipalities in Lublin voivodship, two measures were taken into consideration: namely cash-based liquidity ratio and accrual-based liquidity ratio. It can be concluded that the surveyed local government units, in 2016-2019, had the ability to cover expenses and debits by the generated income and revenue as evidenced by the financial liquidity ratio above unity. In the analysed period this measure was at a similar, stable level from 1.04 to 1.05. The situation changed in 2020, when a decrease in liquidity was recorded due to a significant increase in budget expenditures in comparison with revenues. In contrast, the accrual-based liquidity ratio, which takes into account not only revenue, income, expenditure and outgoings but also receivables and payables, was at a higher level (from 1.68 in 2020 to 1.94 in 2016). This shows that the municipalities under study had a higher level of receivables than payables due at the end of the financial year. In 2020, compared to 2016, there was a decrease in the value of this ratio by 13.4%.

In 2016-2020, the average debt burden on budget revenue of rural municipalities in Lublin voivodeship was at the level from 17.32% to 19.65%. The highest level of this ratio was found in 2018 and the lowest in 2020. In the studied period, a relatively similar level of the total debt ratio was recorded, which should be assessed positively. In addition, the ratio of the share of due liabilities in total liabilities in the analysed group of units did not exceed 1%. The highest level of due liabilities in rural municipalities in Lublin voivodeship

\textsuperscript{17}Uchwała nr 102 Rady Ministrów z dnia 23 lipca 2020 r. w sprawie wsparcia na realizację zadań inwestycyjnych przez jednostki samorządu terytorialnego (M.P. poz. 662)
was recorded in 2016, which translated into a relatively high level of the ratio. In this period, 28 municipalities at the end of the financial year showed the occurrence of due liabilities, which was indicative of their failure to meet their financial liabilities on time and a threat to the financial stability of these units. These were mainly liabilities to non-financial enterprises and households, which resulted from lower-than-planned budget revenues. In the last year covered by the analysis, only 0.11% of all liabilities of rural municipalities in Lublin voivodeship were due liabilities, i.e. those which had not been settled on time (11 out of 165 municipalities showed due liabilities at the end of the year). The decrease of the ratio of due liabilities in total liabilities is a positive phenomenon.

Table 3. Selected ratios of short-term and long-term solvency of rural municipalities in Lublin voivodeship in 2016-2020

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<tbody>
<tr>
<td>Cash-based liquidity ratio</td>
<td>1,05</td>
<td>1,05</td>
<td>1,04</td>
<td>1,05</td>
<td>1,00</td>
<td>-0,05</td>
</tr>
<tr>
<td>Accrual-based liquidity ratio</td>
<td>1,94</td>
<td>1,87</td>
<td>1,78</td>
<td>1,84</td>
<td>1,68</td>
<td>-0,26</td>
</tr>
<tr>
<td>Total liabilities to total revenue ratio (%)</td>
<td>18,64</td>
<td>17,61</td>
<td>19,65</td>
<td>18,97</td>
<td>17,32</td>
<td>-1,32</td>
</tr>
<tr>
<td>The ratio of share of due liabilities in total liabilities (%)</td>
<td>0,43</td>
<td>0,10</td>
<td>0,34</td>
<td>0,36</td>
<td>0,11</td>
<td>-0,32</td>
</tr>
</tbody>
</table>

Source: authors’ own work based on data from the Regional Chamber of Accounts in Lublin.

As a supplement to the financial stability ratio analysis, surveys were carried out among representatives of the executive bodies of rural municipalities in Lublin voivodeship in 2021. Chart 1 presents the opinions of the heads of municipalities on the financial stability of their units. The vast majority of the respondents (70.4%) declared that their municipality had been financially stable for a long time and that there were no disturbances in this respect, whereas 18 heads of municipalities replied that they were in the process of building financial stability. Only 3 municipalities indicated financial destabilisation, one of which was long-term. Such a high percentage of financially stable municipalities may attest to the efficient execution of financial management by local authorities.

Among the most important criteria for assessing financial stability, the respondents indicated long-term solvency (more than 40%), budgetary solvency understood as flexibility (ability to react properly to environmental stimuli) and financial independence (21.2%). Less important in assessing the financial stability of municipalities were solvency in public services and liquidity, with 12.7% and 11.3% respectively. Seven heads of municipalities considered intergenerational equity, i.e. not transferring the financial effects of current liabilities to subsequent generations, as the most important criterion for assessing the financial stability of local government units, while three pointed to economic growth (Chart 2).
Chart 1. The opinion of heads of rural municipalities on the level of financial stability of their municipalities (%)

Source: authors’ own study.

Chart 2. The most important criteria for assessing financial stability in the opinion of heads of rural municipalities in Lublin voivodeship (%)

Source: authors’ own study.

Chart 3 presents respondents’ answers to the question concerning the impact of the Covid-19 pandemic on selected factors shaping the financial stability of their municipalities. Most heads indicated no impact of the pandemic on financial stability, indicating that in the case of rural municipalities the crisis was not as noticeable as, for example, in larger cities. The most frequently was indicated negative impact of the pandemic on the revenue of municipalities and residents, social ties, the labour market situation and the expenditure of municipalities. Some respondents perceived a positive impact of the pandemic, e.g. on municipality management, decision-making independence, as well as the financial liquidity of municipalities, which may have resulted from a certain relaxation of rules, e.g. in terms of balancing the operating budget and...
incurring liabilities, aimed at facilitating the functioning of local governments in times of crisis related to the pandemic.

In conclusion, on the basis of the conducted analyses, it can be stated that the crisis caused by the pandemic and lockdown has not significantly affected the financial stability of rural municipalities. However, it is necessary to continue monitoring the financial situation of the units, as the possible negative effects of the crisis may only become apparent in the long term.

**Summary and conclusions**

Maintaining financial stability of local government units is an important economic problem, especially at the lowest level of administrative division, i.e. in municipalities, which should perform their functions continuously and effectively. The study attempts to assess the financial stability of rural municipalities in Poland’s Lublin voivodeship in 2016-2020. Based on the analysis, the following conclusions were formulated:

1. In the studied period both revenues and expenditures of rural municipalities in the Lublin voivodeship increased, although the rate of growth varied. Revenue exceeded expenditure only in 2016 and 2019. Analysing the degree of coverage...
of current expenditures with current revenue, it can be noted that in 2016-2020
the revenue collected by municipalities covered expenditures related to the
implementation of public tasks, which indicates the sustainability of fiscal policy
and financial independence.

2. The revenue independence of the surveyed units was at a low level, although it
increased slightly in 2020 compared to 2016. The relatively low level of
independence was caused, among others, by a high percentage of so-called
"lilliput" municipalities, in which a small share of own revenue in financing
public tasks was recorded. Small units have fewer opportunities to obtain tax
revenues, and thus are more dependent on transfer revenues. It is worth noting
that the vast majority of rural municipalities in this region recorded a lower-than-
average revenue independence, which is a disturbing phenomenon.

3. Rural municipalities in the Lublin voivodeship in 2016-2019 did not have
problems with short-term solvency. The analysed financial liquidity ratios were
above 1.0, both on a cash and accrual basis. In addition, the results achieved
during the period were at similar levels, indicating financial stability in the area
of short-term solvency. Financial liquidity declined in 2020, due to a higher
increase in budget expenditure, among other things, related to counteracting the
effects of the pandemic, compared to revenue, which was lower than planned.

4. In 2016-2020, the debt burden on budget revenues of rural municipalities in
Lublin voivodeship was at a similar level and did not exceed 20%. In the studied
period, a decrease in the level of debt was found, which may improve the
financial stability of the units, but on the other hand may cause a limitation of
their development. In addition, a low share of due liabilities in total liabilities was
recorded, which is a desirable situation, proving the absence of problems with
financial liquidity and fiscal stability of the studied units. It is worth mentioning
that in 2020 only 7% of all rural municipalities in Lublin voivodeship reported due
liabilities at the end of the budget year.

5. In the opinion of heads of rural municipalities in Lublin voivodeship, the vast
majority of units had been financially stable for a long time. Moreover,
respondents did not perceive any significant impact of the Covid-19 pandemic
on factors shaping the units' ability to finance their own tasks, maintain short-
and long-term solvency or provide adequate quality of public services in a
continuous and effective way.

In conclusion, it is important to continuously monitor the financial situation of individual
units and to build stability on a multi-year basis. The information on financial stability
should be used by local government authorities to make specific financial and
developmental decisions, to pursue an effective fiscal policy and to meet the needs of
society both in the short and long term.

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Crockett A.: Why is financial stability a goal of public policy, Economic Review No. 4, 1997
Stabilność finansowa gmin wiejskich województwa lubelskiego w latach 2016-2020

Streszczenie
Stabilność usług publicznych oraz sytuacja finansowa samorządów lokalnych ma istotny wpływ na rozwój gospodarczy kraju, jak również trwający od lat proces reform politycznych zmierzających do promowania wydajności jednostek sektora publicznego, ich zrównoważonych budżetów oraz stabilności finansowej. Jest to pojęcie różnie definiowane, co wynika m.in. z jego wieloaspektowości oraz braku precyzyjnie określonych miar do oceny tego zjawiska.

z wykonania budżetów badanych gmin publikowane przez Regionalną Izbę Obrachunkową w Lublinie oraz kwestionariusz ankiety.


Słowa kluczowe: stabilność finansowa, gminy wiejskie, analiza wskaźnikowa, płynność finansowa
Kody JEL: H71, H72

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