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## The level of indebtedness of communes in the area of Ostrołęka-Siedlce subregion Poziom zadłużenia gmin podregionu ostrołęcko-siedleckiego

**Summary:** Units of territorial government have limited financial possibilities to carry out tasks. If they want to meet the demands of the local community and to improve the level of attractiveness of the area occupied by them, they have to use repayable sources of financing. In order to protect themselves from a liquidity crisis, units should analyze their financial situation very carefully and evaluate financial safety while making decisions. Incurring debts by local governments is regulated mainly by the law. A legislator introduced various limits concerning running up a debt in generally applicable regulations. The Public Finance Act of 2009 changed the regulations. An individual debt ratio for local government units was introduced. The new limit came into effect in 2014. The aim of the article is an attempt to present legal conditions influencing debt management of a commune and the analysis of financial results based on the conditions as well as the level of indebtedness of local governments of communes between 2009 and 2014. The elaboration indicates causes, sources and directions of using repayable sources of financing on a given area. The article uses conventional research methods, i.e. the analysis of the subject literature, legal acts and comparative analysis of the level of basic budgetary categories influencing the level of commune indebtedness. The comparison was carried out on communes in Poland, the Mazovia province and the subregion of Ostrołęka-Siedlce with the division into rural, urban and urban-rural communes.

**Keywords:** liabilities, management, budget, finances, community

**Abstract:** Jednostki samorządu terytorialnego mają ograniczone możliwości finansowania realizowanych przez nich zadań. Chcąc sprostać potrzebom społeczności lokalnej, poprawić poziom atrakcyjności zajmowanego terenu, muszą korzystać ze zwrotnych źródeł finansowania. W celu zabezpieczenia się przed utratą płynności finansowej powinny bardzo uważnie analizować swoją sytuację finansową i oceniać bezpieczeństwo finansowe podejmowanych decyzji. Zaciąganie długu przez samorządy w głównej mierze jest warunkowane przez prawo. Ustawodawca w powszechnie obowiązujących przepisach prawa stosował różne ograniczenia zadłużania się jednostek samorządu terytorialnego. W ustawie o finansach publicznych z 2009 roku uległy one zmianie. Wprowadzony został tzw. indywidualny wskaźnik zadłużenia jednostki samorządu terytorialnego. Nowy limit zaczął obowiązywać od roku 2014. Celem artykułu będzie próba przedstawienia uwarunkowań prawnych wpływających na zarządzanie długiem gminy i analiza na tym tle wyniku finansowego i poziomu zadłużenia samorządów gminnych w latach 2009-2014. W opracowaniu wskazano przyczyny, źródła i kierunki wykorzystywania zwrotnych źródeł finansowania na badanym terenie. W opracowaniu wykorzystano klasyczne metody badawcze, tj. analizę literatury przedmiotu, aktów prawnych oraz analizę porównawczą poziomu podstawowych kategorii budżetowych mających wpływ na poziom zadłużania się gmin. Porównań dokonano pomiędzy gminami w Polsce, województwie mazowieckim oraz podregionie ostrołęcko-siedleckim w podziale na gminy wiejskie, miejskie i miejsko-wiejskie.

**Słowa kluczowe:** zadłużenie, zarządzanie, budżet, finanse, gmina

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## Introduction

The social and economic changes which took place in Poland led to the switch from a centrally planned economy to the market economy. As a result, a wide range of changes occurred within a systemic relation of the state and its bodies to both private and public entities. At the same time, economic transformations were instrumental in revealing some problems, economic, legal and social in nature on the national level and concerning local populations<sup>2</sup>. A local government, whose basic unit is a commune, and central authorities were to be responsible for solving those problems. A commune was equipped with legal personality, assets and was assigned a particular source of income. A commune was also entrusted with its own tasks to the benefit of local communities.

A basic unit of local government was entrusted responsibility for the social and economic development of the region. With the use of public funds, it carries out various tasks and fulfills the needs of local communities. The needs of the society concerning public goods are unlimited, however, the possibilities to satisfy needs meet obstacles. One of them is the lack of funds. The income achieved, both respective and compensatory, does not allow communes to cover their expenses. Therefore, there is a necessity to incur liabilities<sup>3</sup>. Using a repayable source of financing allows communes to function in conditions of failure to adjust income to the costs of the tasks carried out and to retain investment expenditures at a high level<sup>4</sup>. Problems of a safe level of commune indebtedness, retaining its financial liquidity and managing the existing debt occur. To avoid extensive indebtedness, a legislator introduced appropriate debt limits.

The aim of the article is an attempt to present legal conditions influencing debt management of a commune and the analysis of financial results based on the conditions as well as the level of indebtedness of the local governments of communes. The research period covers the years between 2009 and 2014. The study concerned communes of the Ostrołęka-Siedlce subregion whose indebtedness was presented in comparison to other communes in Poland. The presented analyses were based on statistical data published by the Central Statistical Office, Ministry of Finance and Regional Accounting Chamber.

To achieve the set goal, the article will attempt to answer the following questions:

1. How big is the indebtedness of the analysed units of the local government?
2. To what extent do communes respect legal debt limits?
3. What is the structure of the indebtedness?
4. What are the funds from external sources spent on?
5. How did the introduction of the individual debt ratio influence the possibilities of acquiring external sources of financing?

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<sup>2</sup> M. Wartalska, *Gospodarka finansowa miasta. Podstawy teoretyczne i studium przypadku*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2007, p. 3.

<sup>3</sup> J. Sierak, *Fundusze Unii Europejskiej jako źródło finansowania rozwoju infrastruktury komunalnej w Polsce*, Oficyna Wydawnicza SGH, Warszawa 2010, p. 150.

<sup>4</sup> A. Krzemińska, *Dług jednostek samorządu terytorialnego w świetle limitów zadłużenia*, [in:] *Zarządzanie długiem publicznym. Aspekty finansowe i płynnościowe*, E. Denek, B. Filipiak (eds.), „Zeszyty Naukowe WSB w Poznaniu” 2011, nr 36, p. 174.

## The term and the idea of a local government debt

As was emphasized in the introduction, basic units of local governments lack funds to cover budgetary expenses. In such situations, they are forced to incur liabilities, which unpaid at the end of the budget year become local government debt, which is part of a public debt. From the macroeconomic perspective, the public debt is a financial liability arising from loans and other forms of activities as a result of which the state pays compensation<sup>5</sup>. According to S. Owsiak, the public debt is a financial liability of the state and local authorities arising from loans, credits, the issue of securities or unpaid liabilities by units of the public sector<sup>6</sup>. The presented definitions show that the public debt is a sum of the financial liabilities of public authorities pursuant to various commitments. The liabilities mainly occur due to the fact of incurring loans used to cover the budget deficit.

Debt of the local government is one of the elements of the public debt. A. Borodo defines it as a legal relation which is complex in character, deriving from contracts or agreements<sup>7</sup>. J. Gulmińska-Pawlic claims that local government debt is a sum of financial liabilities connected with meeting public expenditure exceeding the income, which can be achieved to cover the expenditure<sup>8</sup>. A commune debt can be also defined as a sum of funds available for a strictly limited time and on particular conditions<sup>9</sup>. It often results from liabilities taken on for: loans and credits, the issue of local government securities, unpaid required liabilities, ensuring financial liquidity, covering a planned budget deficit or realization of investment tasks<sup>10</sup>.

The main cause of debt is taking loans to cover budget deficits. The authorities of local governments whose expenditure cannot be covered by income are responsible for the repayment of the resulting debt and its interest.

Unlimited needs of local communities and limited financial resources are another reason for incurring liabilities. In a situation of the lack of resources to satisfy the needs of the society, the local authorities are forced to use external sources of financing. It should provide a faster fulfillment of the expectations of inhabitants of local communities particularly within the scope of infrastructure and technical investments<sup>11</sup>.

Incurring debt liabilities is connected with both positive and negative effects. The role of debt as a factor accelerating the social and economic development cannot be denied. Long-term debt leads to the increase of the quality of the provided services and the development of the infrastructure. Thanks to

<sup>5</sup> R. Milewski, E. Kwiatkowski, *Podstawy ekonomii*, PWN, Warszawa 2005, p. 33.

<sup>6</sup> S. Owsiak, *Finanse publiczne. Teorie i praktyka*, PWN, Warszawa 1999, p. 251.

<sup>7</sup> A. Borodo, *Samorząd terytorialny. System prawnofinansowy*, LexisNexis, Warszawa 2008, p. 56.

<sup>8</sup> A. Glumińska-Pawlic, *Samodzielność finansowa jednostek samorządu terytorialnego w Polsce. Studium finansowoprawne*, Wydawnictwo Uniwersytetu Śląskiego, Katowice 2003, p. 88.

<sup>9</sup> M. Dylewski, B. Filipiak, M. Gorzałczyńska-Koczkodaj, *Finanse samorządowe, Narzędzia, decyzje, procesy*, PWE, Warszawa 2006, p. 177.

<sup>10</sup> I. Świderek, *Zadłużenie jednostek samorządu terytorialnego w świetle nowych uregulowań – zarys problemu*, „Samorząd Terytorialny” 2011, no. 6, p. 40.

<sup>11</sup> M. Jastrzębska, *Zarządzanie długiem jednostek samorządu terytorialnego*, Wolters Kluwer business, Warszawa 2009, p. 30.

that, there occurs not only the restoration but also the modernization of the infrastructure. Most local governments use indebtedness for quantitative changes and changes in standards of provided services. It is an essential factor in favor of incurring debt. Each modernization of the infrastructure produces an opportunity to lower the exploitation costs of the assets used to carry out tasks of a basic unit of territorial government<sup>12</sup>.

Making use of repayable sources of financing by units of territorial government leads to the necessity of increasing the costs of the service interest. It influences the necessity of managing debt both in the short and long term.

Debt management is one of the most important elements of managing local finances. Effective debt management can be defined as an optimal and decision-making process, taking into account a desired model of local development of a particular unit of territorial government as well as the character of the conducted financial economy, focusing on situations on financial markets and individual legal, political, organizational and cultural conditioning of a particular unit<sup>13</sup>.

According to M. Poniatowicz<sup>14</sup>, debt management is a long decision-making process concerning key issues of making use of debt instruments in the financial economy of units of local government whose aim is to increase possibilities within the scope of provided services aimed at satisfying the needs of the inhabitants. However, M. Bitner<sup>15</sup> claims that managing public debt is a discipline concentrated on analyzing activities leading to a planned management and debt repayment respectively to the needs and possibilities of the communes, the market situation as well as defining quantification and risk management connected with using loan funds. Managing this area of public finance is mainly based on choosing an appropriate form of financing, adjusting debt cash inflows to the income, budget expenditure and limiting various kinds of risk.

On the basis of the presented definitions, it can be stated that debt management is a process aggregating decisions concerning planning, monitoring control of the debt incurred in risky conditions, aimed at the effective execution of goals resulting from debt managing strategies in conditions of changeable environment. Its core is to obtain external funds, their service and repayment of liabilities.

### **External and internal limits of debt incurred by units of territorial government**

By the end of 2013, the following internal limitations of incurring debt had been valid<sup>16</sup>:

- the total sum of debt of units of territorial government at the end of a budget year could not exceed 60% of the income of a particular unit in

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<sup>12</sup> M. Dylewski, B. Filipiak, *Finansowanie samorządowego długu publicznego – instrumenty i skutki ich zastosowania*, „Annales Universitatis Mariae Curie-Skłodowska” 2013, vol. XLVII, 3, p. 138.

<sup>13</sup> M. Poniatowicz, J.M. Salachna, D. Perło, *Efektywne zarządzanie długiem w jednostce samorządu terytorialnego*, Wolters Kluwer business, Warszawa 2010, p. 71.

<sup>14</sup> M. Poniatowicz, *Dług publiczny w systemie jednostek samorządu terytorialnego (na przykładzie miast na prawach powiatów)*, Wyd. UwB, Białystok 2005, p. 251.

<sup>15</sup> M. Bitner, *Gmina na rynku kapitałowym. Podstawy zarządzania długiem komunalnym*, Agencja Rozwoju Komunalnego, Warszawa 1999, p. 23.

<sup>16</sup> Art. 169 ustawy z dnia 30 czerwca 2005 r. o finansach publicznych, Dz.U. z 2005 r. nr 249, poz. 2104.

a given budget year, and during the year – 60% of the planned income at the end of each quarter. The limit mentioned is not applicable to issued securities, credits and loans taken due to an agreement made between a subject having budgetary resources of the EU at its disposal. It means that the limit of the debt level does not cover liabilities occurred to protect the respective contribution of local government units and financing tasks which are partly refundable;

- a cumulative amount of liabilities which are due to be carried out in a given budget year as a repayment of credits and loans, buy-outs of securities issued by units of local governments (installments and interest) and liabilities resulting from guarantees cannot exceed 15% of the planned income of units of local government for a given budget year or 12% when the state public debt is higher than 55% in relation to the Gross Domestic Product (GDP). The limit is not applicable to repayment of capital installments of credits, loans and buy-outs of securities incurred or issued to cover the existing temporary budget deficit of units of territorial government. The limit is also not applied to issued securities, credits and loans, incurred in connection with resources defined in an agreement made with a subject having structural funds at its disposal, the Cohesion Fund of the European Union or guarantees provided to territorial public bodies carrying out the tasks of units of local governments using resources coming from the funds.

The presented limits were very controversial. These can include<sup>17</sup>:

- limitations in the possibilities of running up debts in units of local governments which have a good financial situation,
- the possibility of extensive indebtedness of units of territorial government which have a poor financial situation,
- lack of taking into consideration the size and income potential of a particular local government,
- applying new methods of evaluation of local governments credit capacity by credit rating agencies, taking into account the character of particular local governments different as far as geographical location or natural resources are concerned.

In 2011 an obligation to balance the operational budget of local government units was introduced. It meant that debt indicator conditions the possibilities of incurring liabilities started from the level of budget surplus. The operational deficit makes clear that the expenses incurred by units of territorial government exceed their financial possibilities.

Due to the drawbacks of the existing limits mentioned above, in 2014 an individualized indicator limiting debt was introduced. It is defined by the following formula<sup>18</sup>:

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<sup>17</sup> D.A. Hałaburda, *Finanse samorządu terytorialnego*, Wydawnictwo Wyższej Szkoły Ekonomicznej, Białystok 2010, p. 119.

<sup>18</sup> Ustawa z dnia 27 sierpnia 2009 roku o finansach publicznych, Dz.U. z 2013 r. poz. 885, 938, 1646; Dz.U. z 2014 r. poz. 379, 911, 1146, 1626.

$$\left(\frac{R+O}{D}\right)_n \leq \frac{1}{3} * \left( \frac{Db_{n-1} + Sm_{n-1} - Wb_{n-1}}{D_{n-1}} + \frac{Db_{n-2} + Sm_{n-2} - Wb_{n-2}}{D_{n-2}} + \frac{Db_{n-3} + Sm_{n-3} - Wb_{n-3}}{D_{n-3}} \right)$$

Where:

R – a total amount of money planned for a budget year, from installment repayments of credits and loans, buy-out of securities,

O – planned for a budget year interest on credits and loans, interest and discounts on securities, repayment of loans resulting from issued guarantees,

D – total budget income in a given budget year,

Db – current income,

Sm – income from the sale of assets,

Wb – current expenditure,

n – the budget year on which the relation is set,

n-1 – the year preceding the budget year on which the relation is set,

n-2 – the year preceding the budget year on which the relation is set by 2 years,

n-3 – the year preceding the budget year on which the relation is set by 3 years.

The above limitation is not applied to:

- redemption of securities,
- repayment of credits and loans issued in connection with a contract made to carry out the programme,
- a project or tasks from European resources, except for interest on the liabilities,
- guarantees issued to local legal entities carrying out the tasks of units of local governments using European resources within no more than 90 days after the programme and the project completion and after receiving refunds of the costs covered from the resources.

The left side of the presented inequality reflects a share of the analyzed income load of units of territorial government with the repayment of loan installments and interest. Whereas the right side of the formula presents an arithmetic average three-year operating surplus i.e. the difference between the current income increased by income from assets sale and the current expenditure related to the total income. The comparison of both sides of the inequality means that arithmetic three-year average preceding the year for which the possibility of the debt incurring is calculated for a given unit requires its operating results referring to the income not to be lower than a predicted share of debt repayment and costs of the service in the income<sup>19</sup>.

The discussed ratio was parametric, unlike the value ratio valid up to 2014. It was calculated individually for each unit. It required local government to shape the budget in such a way as to be able to comply with the relations included in the act.

<sup>19</sup> J. Rutkowski, *Sytuacja finansowa samorządów w Polsce a nowe zasady limitowania zadłużenia – spojrzenie makroekonomiczne*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego nr 873. Finanse, Rynki Finansowe, Ubezpieczenia” 2015, no. 77, p. 281.

Table 1. The ratios of the evaluation of the indebtedness level

Ratio name	Way of calculating
The share ratio of liabilities in the total income	$W_{z1} = \frac{Z_o}{D_0}$
The share ratio of liabilities with the exception of EU projects in the total income	$W_{z2} = \frac{Z_o - UE}{D_0}$
The ratio of encumbrance of the total income with debt service	$W_{z3} = \frac{O + R}{D_0}$
The ratio of encumbrance of the total income with debt service without capital installments for EU projects	$W_{z4} = \frac{O + R - UE}{D_0}$
The ratio of encumbrance of own income with debt service	$W_{z5} = \frac{O + R}{D_w}$
The ratio of encumbrance of current income with current expenses and debt service	$W_{z6} = \frac{O + R + W_b}{D_b}$
The share ratio of due and payable liabilities in total liabilities	$W_{z7} = \frac{Z_w}{Z_o}$
The liability ratio per capita	$W_{z18} = \frac{Z_o}{L}$
The share ratio of operational surplus and income from assets sale in the total income	$W_{B6} = \frac{N_o + S_m}{D_o}$

Source: Own elaboration on the basis of [www.finanse.mf.gov.pl/budzet-panstwa/finanse-samorzadow/opracowania](http://www.finanse.mf.gov.pl/budzet-panstwa/finanse-samorzadow/opracowania) (access date: 28th December 2015)

Table description:

$D_0$  – total income,  $Z_o$  – liabilities according to debt titles,  $O$  – interest on incurred credits and loans,  $R$  – repayment of capital installments on incurred credits and loans,  $R_{UE}$  – repayment of capital installments on incurred credits and loans without capital installments on EU projects,  $D_w$  – own income,  $D_b$  – current income,  $W_b$  – current expenses,  $Z_w$  – due and payable liabilities,  $N_o$  – operational surplus,  $S_m$  – income from assets sale.

The main rationality assumption of the 'new' individualized debt ratio was the possibility to set a safe level of indebtedness for each territorial unit.

A formal analysis of the ability of running up debt may be conducted on the basis of indicators suggested by the Ministry of Finance (Table 1)<sup>20</sup>.

### Own research

Communes from the Ostrołęka-Siedlce subregion were deliberately chosen for the research. The analysed subregion comprises 10 districts which involve 74 rural communes, 10 urban-rural communes and 5 urban ones. The choice of the subregion was dictated by its character. It is part of the Mazovian province often called the voivodship of the greatest contrasts. The total rates calculated for the whole province do not reflect a real situation of the given area. The Ostrołęka-Siedlce subregion has the lowest GDP values per inhabitant of all subregions constituting the Mazovian province. Low investment attractiveness, drain of people inhabiting a given area has an influence on the lowest income level per inhabitant among all Mazovian subregions. The differences between the subregions of the Mazovian province are also reflected in the directions and pace of changes in the population. The city of Warsaw has a different influence on the directions of the changes which take place in comparison to the country. The population in the Mazovian province increases both in the rural areas and in towns. It is a reverse tendency compared to the Ostrołęka-Siedlce subregion. The increasing population of towns – communes of the area is accompanied with the decrease of the number of inhabitants of villages. It may confirm a low location attractiveness of the analysed area. Therefore, the local authorities want to satisfy the investment needs to increase the attractiveness of the area. On the other hand, they have to cope with the problem of insufficient funds intended for the activities. The situation forces them to reach for returnable financial resources making the local government get into debt.

Debt analyses of selected communes were performed dividing communes into rural, urban-rural and urban ones. The presented values are an average falling in a commune in a particular type of unit of territorial government.

Communes, along with the creation of a decentralized system, ensuring a given degree of independence, are entitled to use their own income coming from various sources, mainly from transfers from the state budget or local sources. The structure of individual income of local governments tends to offer greater support to the communes whose infrastructure is poor, achieve low own income based on the wealth of inhabitants or achieving a low total fund sources<sup>21</sup>. In basic units of the Ostrołęka-Siedlce subregion in 2014, urban communes had the highest income per capita (4533.92 PLN). It was 57% higher than in 2009. The income per capita of rural and urban communes was similar (approximately 3200 PLN).

While analysing the expenditure per capita of communes of Ostrołęka-Siedlce subregion, it can be stated that the highest level concerned urban communes (4399.45 PLN), whereas the lowest – urban-rural communes (3263.69 PLN).

<sup>20</sup> <http://www.finanse.mf.gov.pl/budzet-panstwa/finanse-samorzadow/opracowania> (access date: 28.12.16).

<sup>21</sup> A.J. Kozłowski, I.Z. Czaplicka-Kozłowska, *Zarządzanie finansami w samorządzie terytorialnym*, Wyższa Szkoła Biznesu w Pile, Olsztyn 2011, p. 116.



Due to an insufficient income level used to carry out the execution of expenditure and to satisfy the needs of inhabitants, the local authorities have to incur debts. Indebtedness of communes in Poland per capita amounted to 1874 PLN in 2014 and was higher by 1455 than in 2009. While analyzing indebtedness per capita in the local government of the Ostrołęka-Siedlce subregion in 2014, it can be stated that it approximately amounted to 1615 per commune and was higher by 891.32 PLN than in 2009. The highest level was recorded in urban communes. In 2013 debt per capita amounted to app. 1174.5 PLN, whereas in urban-rural unit it was 826 PLN and in rural ones – 875 PLN. The level of indebtedness increased in comparison to 2009 in all types of studied communes. Commitments of the rural communes increased at the highest rate – 64% in 2014, whereas urban communes' commitments grew at the slowest rate – 8.3%. The highest diversity concerning debt growth was recorded in urban-rural communes. The coefficient of variation amounted to 81% and it increased by 44 percentage points compared to 2009. The urban-rural communes included units whose level of indebtedness amounted to 171.98 PLN per capita as well as units with 2164.15 thousand PLN per capita. The coefficient was the most stable in rural communes. It amounted to 37% throughout the whole period of the analysis.

To analyse and diagnose the reasons for and the level of indebtedness of units of territorial governments, the analysis was conducted on income and budgetary expenses as well as basic ratios aimed at monitoring the level of using external sources of financing.

Analysing budgets of the Ostrołęka-Siedlce subregion, a significant tendency of increasing income can be observed in all types of units. In 2014 the units executed budgetary income of 1.47 billion PLN. It was 27.55% higher than in 2009. The highest total income was achieved by rural communes which overtook the income of urban-rural communes, the number two, by almost 1.27 billion PLN.

The analysis of the sources of producing revenue for the budget per commune showed that the highest level of income was typical of urban communes. In the communes, the income was the most dynamic and increased by 39.67% in 2014 compared to 2009 (Table 2). The lowest income was achieved by rural communes. It amounted to 17.84 on average, and their level grows significantly more slowly than in other studied units. In 2014 revenue sources in the communes increased by 22.9%.

Another element of the financial economy of territorial governments is budget expenditure allocated by units of local government to implement both respective and outsourced tasks. In the Ostrołęka-Siedlce subregion, the communes' expenditure amounted to 1.6 billion PLN. The highest level of expenditure concerned rural communes at 1.6 billion PLN, whereas the lowest – urban communes at 0.26 billion PLN. The analysis of outgoings per commune on average in the studied region showed that the highest expenses were covered by urban communes (Table 3). In 2014, expenditure of local governments amounted to 52.77 million PLN and was higher by 20% than in 2009. In urban-rural communes, the level of outgoings amounted to 43.38 million PLN in 2014 and was the highest of the previous analysed years. The lowest level of expenditure was characteristic for basic rural units. The units allocated 18.17 million PLN to implement tasks in 2014.

Table 2. The level of income and budget expenditure in communes of Ostrołęka-Siedlce subregion in million PLN [approximately per commune]

Description	Level					
	2009	2010	2011	2012	2013	2014
<b>Rural communes</b>						
Total income	14.51	15.63	17.15	17.62	17.30	17.84
Total expenditure	14.98	17.25	17.86	17.21	17.47	18.17
<b>Budget result</b>	<b>-0.46</b>	<b>-1.62</b>	<b>-0.71</b>	<b>0.41</b>	<b>-0.16</b>	<b>-0.33</b>
<b>Urban-rural communes</b>						
Total income	31.45	35.46	36.26	41.37	40.79	42.80
Total expenditure	35.41	36.95	37.55	41.08	41.78	43.38
<b>Budget result</b>	<b>-3.96</b>	<b>-1.49</b>	<b>-1.30</b>	<b>0.29</b>	<b>-0.99</b>	<b>-0.58</b>
<b>Urban communes</b>						
Total income	37.97	45.52	47.59	47.09	47.90	53.03
Total expenditure	43.82	49.66	47.28	46.82	47.72	52.77
<b>Budget result</b>	<b>-5.85</b>	<b>-4.14</b>	<b>0.31</b>	<b>0.27</b>	<b>0.17</b>	<b>0.26</b>

Source: Own elaboration on the basis of data by Local Data Bank

Comparing the income and budget expenditure of communes in Poland, the Mazovian province and the Ostrołęka-Siedlce subregion, the existence of budget deficit can be noticed. The communes of the Ostrołęka-Siedlce subregion only in 2012 managed to have a budgetary surplus. After the analysis of communes' budgets, taking into account their types, it can be concluded that urban communes are in the best situation. In the analyses period, they experienced a budget deficit only in 2009 and 2010. In other years the revenue exceeded the budget expenditure, which allowed them to generate budget surplus which was the highest in 2014. Other types of analysed units achieved more budget income than budget expenditure only in 2012. In the rest of the period studied, the relation was the reverse. The biggest difference between income and expenditure was observed in urban-rural communes. In 2014 the budget deficit amounted to 0.58 million PLN. The fact that the deficit decreased both in urban-rural and rural communes can be regarded as positive.

One of the limitations valid up to 2014 was their 60% share in the total income to issue liabilities. The level of the limit allows us to analyze  $Wz_1$  ratio. Analyzing the share ratio of total liabilities in total revenue in communes of the Ostrołęka-Siedlce subregion, it can be observed that its value was the highest in urban communes. In the studied years it approximately amounted to: 37.9%, 40.8%, 41.3%, 38.6%, 39% and 34.5% per commune, respectively. The lowest

level of the relation concerned basic units of territorial government of the urban-rural type. The average value of the ratio in the analysed years amounted to 25%. In urban local governments the share of liabilities in total income was the highest 2011 (30%). On the basis of the achieved results, it can be stated that communes of the Ostrołęka-Siedlce subregion maintained a safe level of indebtedness, far from government limitations.

Table 3. The level of coefficients of indebtedness of communes of Ostrołęka-Siedlce subregion between 2009 and 2014

Description	Level					
	2009	2010	2011	2012	2013	2014
<b>Rural communes</b>						
W <sub>z1</sub>	18.5	27.4	30.0	28.0	27.7	28.6
W <sub>z2</sub>	18.2	24.8	26.5	26.0	25.7	–
W <sub>z3</sub>	4.7	5.8	8.4	9.7	9.3	6.4
W <sub>z4</sub>	4.6	5.3	6.0	7.1	7.3	–
W <sub>z5</sub>	16.5	23.5	32.6	35.6	32.7	25.0
W <sub>z6</sub>	91.2	96.4	100.9	100.7	99.6	–
<b>Urban-rural communes</b>						
W <sub>z1</sub>	24.3	23.4	26.9	23.5	26.4	28.5
W <sub>z2</sub>	21.6	19.4	22.8	20.1	24.2	–
W <sub>z3</sub>	3.4	6.0	6.3	7.6	6.5	5.6
W <sub>z4</sub>	3.2	5.8	5.1	6.0	5.9	–
W <sub>z5</sub>	10.0	18.0	18.0	22.8	16.6	15.0
W <sub>z6</sub>	88.3	94.5	96.1	96.1	95.0	–
<b>Urban communes</b>						
W <sub>z1</sub>	37.9	40.8	41.3	38.6	39.0	34.5
W <sub>z2</sub>	37.9	38.7	38.0	36.2	39.0	–
W <sub>z3</sub>	6.2	6.9	9.4	9.5	14.8	5.9
W <sub>z4</sub>	6.2	6.9	9.4	8.1	14.8	–
W <sub>z5</sub>	10.9	14.2	17.6	16.5	24.6	10.2
W <sub>z6</sub>	99.3	103.5	103.1	101.9	107.1	–

Source: Own elaboration on the basis of <http://www.finance.mf.gov.pl/budzet-panstwa/finance-samorzadow/opracowania> (access date: 28th December 2016).

The consequence of using returnable financial sources is the increase of the costs of service. Analyzing the level of  $W_{z3}$  coefficient, it can be stated that it achieved the highest values in urban local governments, which resulted from the highest level of indebtedness in the units. The highest average value of the relation was obtained in 2013 – 14.8%. In other types of communes, the income encumbrance with the indebtedness service was on the safe level, far from the level of statutory bands.

The analysis of encumbrance of total income with debt service in an individual approach showed that the statutory limit of 15% in rural communes was exceeded in 2013 by 13 units whereas in 2014 – by 7 communes. In basic units of territorial government in urban and urban-rural communes, the limit was exceeded by only 1 unit. High costs of debt servicing result partly from incurring loans for projects co-financed by EU funds. It is confirmed by the values of  $W_{z4}$  coefficient. The relation exceeded the 15% level only in 5 rural units in 2013.

The  $W_{z5}$  coefficient describes the possibility of the regulation of interest rates and capital installments. Analyzing its average level in studied communes, it can be stated that to cover debt servicing, rural local governments earmark approximately 30% of their own income, urban-rural communes – 17 % and urban ones – 16%. The evaluation of the level of the relation in an individual approach provides us with some disturbing conclusions concerning basic units of territorial government of rural communes. In 2013, there were 3 units whose level of the coefficient amounted to over 100%. Such a high value may mean that the units bear the risk of becoming insolvent.

In all types of analysed communes, debt service is covered mainly by current revenue. The average values of  $W_{z6}$  coefficient amount approximately to 95%. A positive phenomenon is the lack of due and payable liabilities in each of the analysed units. It may confirm good finance management and timely settling current liabilities.

Comparing  $W_{z18}$  and  $W_{z19}$  coefficients (liabilities per capita excluding EU projects liabilities in total income), it can be stated that in urban self-governments the debt per capita increased by 68 PLN due to involvement into the process of co-financing of projects by EU funds. In communes it increased by 61 PLN.

Taking into account, a binding new limit of incurring debt, a very important role is played by a coefficient of a share of Gross Operating Surplus (GOS) and income from estate sale in the total income. The analysis of its values showed that in 2013 its level was diverse and fell within the range of 10.4% in rural communes to 12.9% in urban-rural communes. The evaluation of the relation in an individual approach allows us to draw a conclusion that 2010 was the worst year in rural communes. Then, the coefficient was negative in 8 local governments. It means that the units did not earn GOS and it could not be covered by income from estate sale. In other types of analyses communes, only one urban-rural commune achieved a negative value in 2010.

To determine the credit worthiness of particular local governments, it is necessary to correlate the relation described above with  $W_{z3}$  coefficient. The surplus of arithmetic mean of  $W_{B6}$  coefficients of three consecutive years preceding the budget year over  $W_{z3}$  coefficient may confirm credit worthiness. The bigger the surplus, the higher the limit of acceptable indebtedness and costs of its service.

Tabela 4. Coefficients of the evaluation of credit worthiness for particular types of communes of the Ostrołęka-Siedlce subregion for 2014 [approximately per commune]

Description	W <sub>Z3</sub> coefficient [%]	Arithmetic mean of W <sub>B6</sub> coefficient	W <sub>B6</sub> -W <sub>Z3</sub>	W <sub>B6</sub> coefficient level [%]		
				2011	2012	2013
Rural communes	9.3	9.5	0.3	8.4	9.7	10.4
Urban-rural communes	6.5	12.3	5.8	10.8	13.1	12.9
Urban communes	14.8	9.6	-5.2	9.0	9.6	10.2

Source: Own elaboration on the basis of data from the Ministry of Finance, [www.finance.mf.gov.pl/budzet-panstwa/finanse-samorzadow/opracowania](http://www.finance.mf.gov.pl/budzet-panstwa/finanse-samorzadow/opracowania) (access date: 28th December 2015).

On the basis of the data presented in Table 4, it can be concluded that urban-rural communes are in the most favourable situation. In their case the difference between W<sub>B6</sub> and W<sub>Z3</sub> coefficient amounts to 5.8 percentage points. An average financial result of budgets of urban-rural communes concerning current activity was positive and it amounted to 4.11 million PLN in 2012. It was 12% higher than in 2011. In 2013 it dropped by 8% in comparison to the previous year. An estimated result of the surplus of W<sub>B6</sub> coefficient over W<sub>Z3</sub> coefficient turned out to be negative. It means that the units may have problems with applying for credit financing.

The analysis of individual credit worthiness indices in rural communes allowed us to draw a conclusion that 34 local governments did not have the capacity for indebtedness financing in 2014. Urban communes are in the most difficult situation. The difference between the described coefficients was negative (-5.2 percentage points). It should be emphasized that a negative value between the coefficients does not determine a lack of possibility of acquiring funds, however, it confirms financial difficulties, which may lead to the necessity of using untypical, frequently controversial procedures of financing.

## Conclusions

One of the most important events concerning legislative changes in Poland was the establishment of territorial government at a commune level in 1990<sup>22</sup>. It had a significant meaning as far as an economic and legal point of view was concerned. It required to equip basic units in the legal personality, local administration separate from central structures as well as appropriate assets. It allowed us to run an economic activity involving production and providing public services to the local community. It was recognized that a commune would satisfy the needs of inhabitants in view of the possibility of the fastest needs recognition. Due to that fact, a commune was assigned a wide range of obligatory and volun-

<sup>22</sup> Ustawa z dnia 8 marca 1990 roku o samorządzie gminnym, Dz.U. 2001, nr 142, poz. 1591 z późn. zm.

tary tasks. To perform the tasks, units should have appropriate funds and be able to manage them properly. At present basic units of territorial government function in conditions of constant underfunding. To be able to meet the demands of the local community, units look for external sources of financing. The following conclusions can be drawn from the analysis of the problem of indebtedness of communes in the Ostrołęka-Siedlce subregion:

1. The debt level of communes of the Ostrołęka-Siedlce subregion is constantly growing. Urban communes' indebtedness is the highest. Urban-rural communes looking for external sources of financing is the slightest.
2. Limits of indebtedness binding up to 2013 in the Ostrołęka-Siedlce subregion were exceeded by 11 local governments. Largely, the debt of the analysed units was allocated to the needs of pre-emptive financing. It should be emphasised that funds from external sources were not intended to cover current activities.
3. The main source of external financing were credits and loans. The studied units marginally used profit bonds.
4. The introduction of the new individualised ratio of indebtedness deprived 38 communes from the Ostrołęka-Siedlce subregion of the possibility of incurring liabilities. It will prevent them from generating EU subsidies and maintaining the investment level.

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