

**DIVERSIFICATION OF THE FINANCIAL SITUATION
OF TERRITORIAL SELF-GOVERNMENT UNITS
IN TERMS OF CHANGES IN THE NUMBER OF INHABITANTS
(EXAMPLE OF EASTERN AND WESTERN REGIONS OF POLAND)**

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Purpose: The aim of the article is to identify and assess the differentiation of the financial situation of communes without cities with powiat status in terms of changes in the number of their inhabitants in the eastern and western regions of Poland.

Design/methodology/approach: Identification and evaluation of the diversification of the financial situation of communes without cities with powiat status in terms of changes in the number of their inhabitants in the eastern and western regions of Poland. The empirical material of the article consists of figures from the Local Data Bank of the Central Statistical Office in Warsaw for the years 1995 and 2018-2020. They apply both to the entire country and to all municipalities without cities with powiat rights, located in six voivodships of eastern and western Poland, i.e., Lubelskie, Podkarpackie and Podlaskie as well as Dolnośląskie, Lubuskie and Zachodniopomorskie. The collected and structured empirical material was developed in a descriptive, tabular, and graphic form, using the method of comparative analysis. Additionally, a score was made of all diagnostic features illustrating the financial situation of the analyzed local government units in the eastern and western regions of Poland against the background of the entire country for 2018-2020.

Findings: The analysis of statistical data showed that changes in the number of population (inhabitants) constitute essential demographic conditions for the economy and financial situation of municipalities without powiat status in the analyzed regions of Poland. It also confirmed the research hypothesis, which assumes that communes in western regions of Poland are in a better financial situation compared to eastern regions, especially those with an increase in the number of inhabitants.

Originality/value: The originality of the work is based on the author's approach to the analysis of the undertaken research issues and making a point evaluation of the financial situation of the examined local government units. The work is addressed primarily to local government officials responsible for local government public finances and the possibilities and directions of local socioeconomic development, as well as to decision-makers who implement regional development policy in Poland.

Keywords: local government units, financial situation, changes in the number of inhabitants, eastern and western regions of Poland.

Category of the paper: research paper.

1. Introduction

The essence of local self-government consists in the exercise of state authority with the use of administrative power in the field of shaping public life in a commune, poviát and voivodship, within the framework of the applicable legal order. Local self-government as a subject of public authority is the bearer of the subjective rights assigned to it, and its main function is to perform non-reserved public tasks for other public law entities, primarily for the state. The guarantee of the implementation of these tasks is, however, the appropriate economic potential of individual local government units, meaning all features, conditions, possibilities, and abilities to obtain funds and their rational and effective spending (Byjoch, Sulimierski, Tarno, 2000; Kotulski, 2000; Stanny, Strzelczyk, 2018).

One of the main aspects of the independence of a local government unit as an entity of a public authority is its financial independence i.e., the right to independently conduct financial management. The rule is that the greater the share of own income and the smaller the share of targeted subsidies in the total budget income the greater the financial independence of a local government unit. Similarly, in spending funds, the greater the share of expenditure on own tasks, and the smaller the share of commissioned tasks financed with earmarked income the greater the independence. Securing the financial independence of a local government unit depends not only on relying on own income, but also on independently shaping the expenses (Dębowska-Romanowska, 1995, 1997; Kornberger-Sokołowska, 2001; Gumińska-Pawlic, Sawicka, 2002; Jastrzębska, 2012).

The financial management of a local government unit comprises the accumulation of income and revenues as well as expenditures and including the ones to perform own and commissioned tasks. At the commune level, it determines its development and competitiveness and secures the fulfillment of the residents' needs. In assessing the income side of the commune's budget, it is important to study the changes in the amount of income, its dynamics, and structure as well as spatial differentiation. On the other hand, on the basis of the analysis of the expenditure side of the budget, it can be determined to what extent the funds are allocated to solving the current problems, and to what extent to the promotion and development of the commune, as well as the improvement and increase of its competitiveness. It should be added that the analysis of the spatial differentiation of the level of budget revenues shows that the high incomes of communes are not only the result of the resourcefulness of local authorities, but also, among others, of the location of capital and enterprises, changes in the number of people, the condition of infrastructure, neighborhood or presence of cities and tourist attractiveness (Podstawka, 2005; Hybel, 2010).

Due to the constantly growing social needs and the limited resources available, the management of public money resources by local government units should be rational. The need to apply mechanisms rationalizing the financial management of a local government

unit occurs in the income and expenditure area of the budget. This is due to the fact that the basis for determining the scope of the tasks performed is the amount of budget revenues. The main goal of rationalizing the income side is to increase the size of the budget of a local government unit. Its achievement depends on the use of economic and political instruments. On the expenditure side, the goal is to increase the efficiency of management and better use of municipal property. An expression of this is the rationalization of the costs of the services provided and the shaping of development on the basis of the desired proportions between current and investment expenditure. The possibilities of rationalizing the financial management of a local government unit are determined by four factors, i.e., the size and structure of the budget, municipal property, and the state of development, management strategy of local authorities and external conditions of financial management. To rationalize the financial management of a local government unit, priorities for the management of current funds and investment financing should be established. The determinant should be the adopted development strategy and the long-term financial forecast of the budget. When making a choice, one should consider social, economic, and political conditions (Zalewski, 1996; Owsiak, 1999; Gwoździcka-Piotrowska, 2012; Jastrzębska, 2012).

Investment expenditures in the financial management of local government units, apart from own income, are an important factor characterizing their development possibilities. The wealth of local government units clearly affects their investment opportunities. Local government units with higher budget revenues per capita usually also have greater investment opportunities. In addition, a greater share of own revenues in total budget revenues allows local governments to freely dispose of financial resources, and thus creates the possibility of allocating larger amounts for investments. The implementation of investments by local government units is one of their most important public tasks, as it satisfies the basic needs of local self-government communities and contributes to their development. In particular, it concerns, in particular, investments in the field of social and technical infrastructure, which create conditions for increasing the competitiveness of the local environment and improving the quantity and quality of public services provided. The aim of investments carried out by local government units should be primarily to meet the needs of the local community, and in assessing their purposefulness and calculating their effectiveness, not only economic, but also social and environmental aspects should be considered. It should be added that in investment processes carried out by local government units, there is a great difficulty in objectively assessing the effective allocation of resources, which results from the complexity of investment projects, the distribution of their effects and outlays over a long period of time, the multifaceted impact of the investment on the environment, the multitude of investment stakeholders and the presence of disagreements of interests. The specificity of this type of investment is their continuity, which means that the expenses for their implementation systematically burden the budget of a given local government unit, and the growing needs in this area create the necessity to look for sources of financing. Therefore, it is important that the investment effectively and

efficiently meets social expectations and needs, but also does not adversely affect the financial situation of a local government unit, which could reduce its potential for further investment. In this way, a kind of closed system is created in which the previously undertaken and completed investments largely determine the potential and possibility of implementing subsequent investments. Therefore, it is important that local government units, when implementing a specific investment policy, consider both its socio-economic and budgetary effects (Gołaszewska-Kaczan, 2005; Sobczyk, 2010; Filipiak, 2011; Błachut, et al., 2018).

The financial condition of a local government unit is its financial condition in a specific period of time, resulting from its income and its structure, expenses and its structure, the degree of use of repayable funds, activity, and effectiveness in obtaining extra-budgetary funds, as well as the efficiency of managing financial and material resources. Local authorities should care about the good financial condition of a given territorial unit, as it is an element of its competitiveness. In addition, it is evidenced by, among others, the ability to perform tasks, achieve budget balances, as well as to increase assets, and to implement and satisfy the needs of residents. Among a number of various conditions shaping the financial economy of a local government unit, and including its financial conditions, the most general are exogenous, endogenous, and mixed conditions. Moreover, certain common categories can be distinguished, including social, economic, environmental, institutional, and political conditions (Ossowska, Ziemińska, 2010; Bień, 2017; Standard, 2017; Stanny, Strzelczyk, 2018; Wójtowicz, 2018).

Thus, the effectiveness of financial management at the local government level is the resultant of many factors and conditions, and their proper identification and the ability to use them determine the efficiency of the functioning of a given local government unit. This is of particular importance in the case of communes which, having usually limited resources, perform many tasks that often exceed their financial capabilities (Świrska, 2016).

From the point of view of effective management of local government finances, the needs and expectations of residents should be carefully identified, which not only reduces waste, but also improves the efficiency of using public funds. The close links between the inhabitants and local authorities favors taking greater responsibility for decisions that are then taken with a large participation of the local population, who identify themselves more with the local environment. This type of approach is in line with the assumptions of the concept of public co-management, assuming the openness of local authorities to the needs of the local environment, active and constant participation of residents in deciding on the direction of local government activities and an effective system of accounting for local authorities. The decentralization of local government finances is not only the basic condition for the effective implementation of the concept of public co-management at the local level but should be the basis of local development policy. Decentralization of finance consisting, *inter alia*, in limiting local government revenues of a transfer nature and increasing the fiscal independence of local authorities is a prerequisite for effective management of local government finances. The main point here is that the largest possible part of the income of local

government units should come from tax income and fees, the amount of which is determined fully or partially by local government authorities. This is because such a solution imposes on the local government greater responsibility not only for the income policy, but also for the expenses incurred, the amount of which must in such circumstances be closely related to the scale of the residents' tax burden. Ensuring the financial stability of local government units is possible under the condition of coordinated and long-term actions of local government institutions and central authorities, because a significant group of factors influencing the financial stability of local governments is external to local governments and is shaped by economic conditions and political decisions. According to the research, a systemic reform of local government finances is necessary in Poland in terms of streamlining the processes of implementing modern and pro-effective financial management instruments, based on a managerial approach, and considering the principles of liberal democracy and standards of good public management, including the principles of partnership and civic participation. It is also necessary to improve the adaptability of local government units to changing external conditions (Baker, Van de Walle, Skelcher, 2011; Guziejewska, 2014; Sołtysiak, Suraj, 2016, 2018; Poniatowicz, Dziemianowicz, 2017; Sołtysiak 2017; Sztando, 2019).

The financial economy of a local government unit largely depends on social, including demographic, and conditions. These include, above all: the condition, structure and changes in the number of people (inhabitants), their preferences and needs as well as wealth, as well as population density, net migration, birth rate, situation of the labor market (e.g. unemployment rate, working) and others reflecting e.g. the quality of life or the scale of specific social problems occurring in a given local government unit (Berne, Schramm, 1986; Rodríguez Bolívar, Navarro Galera, Alcaide Muñoz, López Subirés, 2016; Wójtowicz, 2018; Grzebyk, Sołtysiak, Stec, Zając, 2020).

The number of people (inhabitants) determines the scale of needs, and therefore the size and structure of local government expenditure. Population growth causes an increase in local government budget revenues in the form of increased tax revenues, which, in turn, are the main element of the expenditure side of the budget. On the other hand, the decrease in the number of inhabitants may be a decisive factor in narrowing the local tax base. The number of inhabitants and the amount of income they earn are the key variables influencing the amount of local government income, the main source of which is the share of income from personal income tax. Inhabitants of communes with high personal income, paying high personal income tax, contribute a high share of this tax to the local budget, and this may, in turn, be an important factor in the development of a given local government unit. Thus, the amount of tax revenue to the municipal budget depends not only on the number of taxpayers living in a given territorial unit, but also on the degree of their creativity, entrepreneurship, and economic activity (Nollenberger, Groves, Valente, 2003; Kozłowski, Czaplicka-Kozłowska, 2010; Balatsky, Balatsky, Borysov, 2015; Stanny, Strzelczyk, 2018; Grzebyk et al., 2020).

Eastern regions of Poland are voivodeships with a low level of socio-economic development, characterized by low population density, low quality of human, social, and intellectual capital, low level of technical, social, and institutional infrastructure development, limited territorial accessibility and a low level of income of the population and local government units. Thus, these are voivodships that meet the definition criteria used for peripheral areas. On the other hand, the western regions of Poland, in the geographical and natural sense, are the Odra basin areas stretching between the Sudetes and the Baltic Sea, and in the economic sense, they are a more developed and prosperous part of the country, especially when compared to the eastern regions. The location of the western regions of Poland near Germany and the Czech Republic, as well as near the Scandinavian countries, creates an opportunity for their further socio-economic development, which can be accelerated primarily by establishing and using mutual relations and economic relations (cross-border cooperation) (Mogila, Zaleski, Zathej, 2011; Kudełko, 2013; Balińska, 2015; Czudec, Majka, Zając, 2018; Grzebyk et al., 2019; Miś, Zając, 2020).

2. Research aim, empirical material, and research methods

The aim of the article is to identify and assess the differentiation of the financial situation of communes without cities with powiat status depending on changes in the number of their inhabitants in the eastern and western regions of Poland. The article presents a research hypothesis which assumes that communes in western regions of Poland present a better financial situation compared to eastern regions, especially those with an increase in the number of inhabitants. The empirical material of the article concerns the entire country as well as all communes without cities with powiat status located in six voivodeships of eastern and western Poland, i.e., Lubelskie, Podkarpackie and Podlaskie as well as Dolnośląskie, Lubuskie and Zachodniopomorskie¹. The figures come from the Local Data Bank of the Central Statistical Office in Warsaw and concern the years 1995 and 2018-2020. The collected and structured empirical material was developed in tabular and graphical form, using the method of comparative analysis. To identify and assess the financial situation of communes without cities with powiat status in the eastern and western regions of Poland, the following diagnostic features illustrating it in 2018-2020 were analyzed:

- total revenue of communes' budgets per capita (PLN),
- own revenue of communes' budgets per capita (PLN),
- share of own revenue in total revenues of communes' budgets (%),
- total expenditure of municipalities' budgets per capita (PLN),

¹ One of the administrative borders of these provinces is the state border.

- capital expenditure of municipalities per capita (PLN),
- share of investment expenditures in total expenditures of communes' budgets (%).

The article provides a score for all diagnostic features illustrating the financial situation of municipalities without poviats in the eastern and western regions of Poland against the background of the entire country for 2018-2020. Individual diagnostic features were compared with the average for the country, which was assumed as 100 points, and their advantage or underweight was assessed accordingly in all municipalities without cities with poviats in the eastern and western regions of Poland together and in selected groups of municipalities depending on the dynamics of changes in their population in the years 1995-2020. All points were then summed up and the mean was calculated (Figure 1).

3. Results

When analyzing the demographic conditions of the economy and the financial situation of local government units, it was assumed that the leading features in this respect are changes in the number of the commune's population, i.e., a marked increase, stagnation, or a marked decrease in the number of people. Thus, in the analyzed eastern and western regions of Poland, communes without cities with poviats were divided into three groups, i.e.: I – communes with an increase in population in 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020².

In the analyzed eastern and western regions of Poland, communes with a stagnant population are dominant, especially in the western regions, where the percentage of such units amounts to 60.3% of the total number of communes, while in the eastern regions it constitutes 48.1% of the total number of communes. On the other hand, a smaller percentage are units with a population decline, especially in the western regions, where it constitutes 26.5% of the total number of communes, while in the eastern regions it is higher and amounts to 42.5% of the total number of communes. In turn, the percentage of communes with an increase in population is definitely the smallest, which in the eastern regions constitutes only 9.4% of the total of communes, and in the western regions slightly more, 13.2% of the total of communes (Table 1).

On this basis, it can be concluded that in the western regions of Poland there are better demographic conditions for the economy and financial situation of communes without cities with poviats compared to the eastern regions.

² Communes with an increase in the number of inhabitants - these are the units in which the dynamics of the population in the years 1995-2020, with the year 1995 = 100, is above 110.0; communes with a stagnant population - these are the units where the dynamics ranges from 90.0 to 110.0; communes with a decline in population - these are the units where the dynamics is below 90.0.

In Poland, there is a differentiation between municipalities without cities with poviatus status in terms of the average value of total income in the budgets of municipalities per capita in 2018-2020. The average value of total revenues of communes' budgets per capita is slightly higher in the communes of the western regions of Poland compared to the eastern regions and the average for the country (PLN 5,240.81). In addition, the average value of total income in communes' budgets per capita varies depending on the dynamics of changes in the population of a commune, both in the eastern and western regions of Poland. It is the highest in the group of communes with an increase in population, where it exceeds the average for all communes without cities with poviatus status in the analyzed regions, especially in the western regions. In the group of communes with population stagnation, the average value of total incomes in communes' budgets per capita is lower, while it is the lowest in the group of communes with a population decline, especially in the eastern regions. In all separated groups of communes, depending on the dynamics of population changes, the differentiation of this characteristic between individual communes is small, so its variability is low, as in the case of all communes without cities with poviatus status in the analyzed regions, especially in the eastern regions (Table 1).

Table 1.

Total revenues of communes' budgets per capita depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in PLN)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	480	45	231	204
Mean	5176	5275.1	5216.7	5108
Volatility coefficient V (%)	12.3	15	12	11.8
Minimum	3970.2	4229	4092.2	3970.2
Maximum	9586.2	8883.4	9586.2	9.356.0
Western regions of Poland				
Number of communes	355	47	214	94
Mean	5453.1	6108.5	5380.7	5290.3
Volatility coefficient V (%)	22	28.9	18	23.6
Minimum	3107.2	4593.9	4201.2	3107.2
Maximum	13823.5	13823.5	10430.5	11524.7

Explanation: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.

In Poland, there is a differentiation between communes without cities with poviatus status in terms of the average value of the communes' own budgets per capita in 2018-2020. The average value of own revenues of communes' budgets per capita is clearly higher in communes in the western regions of Poland compared to eastern regions, and with the average for the country (PLN 2281.85). Additionally, the average value of municipal budgets' own incomes per capita varies depending on the dynamics of changes in the population of the commune, both in the eastern and western regions of Poland. It is definitely the highest in the group of communes

with an increase in population, where it exceeds the average for all communes without cities with poviatus status in the analyzed regions, especially in the western regions. On the other hand, both in the group of municipalities with population stagnation and in the group of municipalities with a population decline, the average value of municipal budgets' own income is clearly lower and similar, to the average for all municipalities without cities with poviatus status in the analyzed regions. In all separated groups of communes, depending on the dynamics of changes in the number of the population, the differentiation of this characteristic between particular communes is quite high, i.e., its variability is average, as in the case of all communes without cities with poviatus status in the analyzed regions (Table 2).

Table 2.

Own revenues of communes' budgets per capita depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in PLN)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	1656.9	2039.5	1637.4	1594.4
Volatility coefficient V (%)	41.7	37.4	41.8	41.2
Minimum	752.8	917.8	752.8	799
Maximum	6846.4	5498.2	6359.6	6846.4
Western regions of Poland				
Number of communes	2597.4	3456.8	2455.7	2490.1
Volatility coefficient V (%)	46.7	51.8	41.2	44.6
Minimum	1233.4	1953	1233.4	1272.2
Maximum	11535.4	11535.4	8142.1	8413.3

Explanation: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.

In Poland, there is a differentiation between municipalities without cities with poviatus status in terms of the share of own income in the total income of municipal budgets in 2018-2020, and it is clearly higher in the municipalities of western regions of Poland compared to eastern regions, and with the average for the country (43.5%). Additionally, the share of own income in the total income of communes' budgets varies depending on the dynamics of changes in the population of a commune, both in the eastern and western regions of Poland. It is definitely the highest in the group of communes with an increase in population, where it exceeds the average for all communes without cities with poviatus status in the analyzed regions, especially in the western regions. However, both in the group of municipalities with population stagnation and in the group of municipalities with a population decline, the share of own income in the total income of municipal budgets is clearly lower and similar, as well as the closest to the average for all municipalities without cities with poviatus status in the analyzed regions. In each group of communes, depending on the dynamics of changes in the number of population, the differentiation of this characteristic between individual communes is rather small, so its variability is low, as in the case of all communes without cities with poviatus status in the analyzed regions, especially Western countries (Table 3).

Table 3.

Share of own income in total income of municipalities' budgets depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in %)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	31.7	38.2	31.2	31
Volatility coefficient V (%)	31.7	25	31.5	32.2
Minimum	14.5	19.1	14.5	17.2
Maximum	73.2	61.9	71.6	73.2
Western regions of Poland				
Number of communes	46.3	54.4	44.7	46.1
Volatility coefficient V (%)	22.2	17.4	21.7	22.1
Minimum	22.9	37	22.9	29.8
Maximum	83.4	83.4	78.1	77.1

Explanations of the table: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.

In Poland, there is a differentiation between communes without cities with poviatus status in terms of the average value of total expenditure in communes' budgets per capita in 2018-2020. The average value of total expenditure in communes' budgets per capita is slightly higher in communes in the western regions of Poland compared to eastern regions and with the national average (5,247.05 PLN). Additionally, the average value of total expenditure in communes' budgets per capita varies depending on the dynamics of population changes in a commune, both in the eastern and western regions of Poland. It is the highest in the group of communes with an increase in population, where it exceeds the average for all communes without cities with poviatus status in the analyzed regions, especially in the western regions. In the group of communes with population stagnation, the average value of total expenditures in communes' budgets per capita is lower, while it is the lowest in the group of communes with a population decline, especially in the eastern regions. In all separated groups of communes, depending on the dynamics of changes in the number of the population, the differentiation of this characteristic between individual communes is small, so its variability is low, as in the case of all communes without cities with poviatus status in the analyzed regions, especially in the eastern regions. (Table 4).

Table 4.

Total expenditure of communes' budgets per capita depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in PLN)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	5118.6	5229.1	5167.4	5038.9
Volatility coefficient V (%)	12.9	14.8	12.4	13
Minimum	3940.8	4044.5	4030.2	3940.8
Maximum	10203.7	8171.6	9135.9	10203.7

Cont. table 4.

Western regions of Poland				
Number of communes	5388.1	6049.5	5310.0	5235.2
Volatility coefficient V (%)	22.5	27.5	19.2	23.9
Minimum	3043.7	4506.7	4108.5	3043.7
Maximum	11917.4	11917.4	10928.9	11851.7

Explanation: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.

In Poland, there is a differentiation between communes without cities with poviats status in terms of the average value of investment expenditure in communes' budgets per capita in 2018-2020. The average value of investment expenditure of municipalities' budgets per capita is slightly higher in the municipalities of the eastern regions of Poland compared to the western regions and the average for the country (PLN 909.30). In addition, the average value of investment expenditure in communes' budgets per capita varies depending on the dynamics of changes in the population of a commune, both in the eastern and western regions of Poland. It is the highest in the group of communes with an increase in population, where it exceeds the average for all communes without cities with poviats status in the analyzed regions, especially in the western regions. On the other hand, both in the group of municipalities with population stagnation and in the group of municipalities with a population decline, the average value of investment expenditure of municipalities' budgets per capita is clearly lower and most similar to the average for all municipalities without cities with county rights in the analyzed regions, and by far it is the lowest in the group of communes with a population stagnation in the western regions of Poland (Table 5).

Table 5.

Investment expenditure of communes' budgets per capita depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in PLN)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	979.9	1113.5	980.3	949.9
Volatility coefficient V (%)	44.8	44.4	45.3	43.7
Minimum	222.6	322.5	260.3	222.6
Maximum	3745.1	2569.7	3745.1	2850
Western regions of Poland				
Number of communes	942	1372.8	840.1	958.8
Volatility coefficient V (%)	67.9	54.8	62.1	76.1
Minimum	121.5	170.6	127.8	121.5
Maximum	4874.6	4254.7	3846.5	4874.6

Explanation: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.

In eastern regions, in all separated groups of communes, depending on the dynamics of changes in the number of the population, the differentiation of this characteristic between individual communes is, in turn, quite large and very similar, so its variability is average,

the same as in the case of all communes without cities with the right of county. On the other hand, in the western regions, in all separated groups of communes, depending on the dynamics of changes in the number of the population, the differentiation of this characteristic between individual communes is large, i.e., its variability is also large, especially in the case of the group of communes with a decrease in the number of inhabitants (Table 5).

In Poland, there is a differentiation between municipalities without cities with poviatus status in terms of the share of investment expenditure in the total expenditure of municipal budgets in 2018-2020, and it is slightly higher in the municipalities of the eastern regions of Poland compared to the western regions and the average for the country (17.3%). Additionally, the share of investment expenditures in the total expenditures of communes' budgets varies depending on the dynamics of changes in the population of the commune, both in the eastern and western regions of Poland. It is definitely the highest in the group of communes with an increase in population, where it exceeds the average for all communes without cities with poviatus status in the analyzed regions, especially in the western regions. On the other hand, both in the group of municipalities with population stagnation and in the group of municipalities with a population decline, the share of investment expenditure in the total expenditure of municipalities' budgets is lower and similar, as well as the closest to the average for all municipalities without poviatus status in the analyzed regions. In each group of communes, depending on the dynamics of changes in the number of the population, the differentiation of this characteristic between particular communes is quite large, i.e., its variability is average, as in the case of all communes without cities with poviatus status in the analyzed regions, especially in the western regions. and in the group of communes with a population decline in these regions (Table 6).

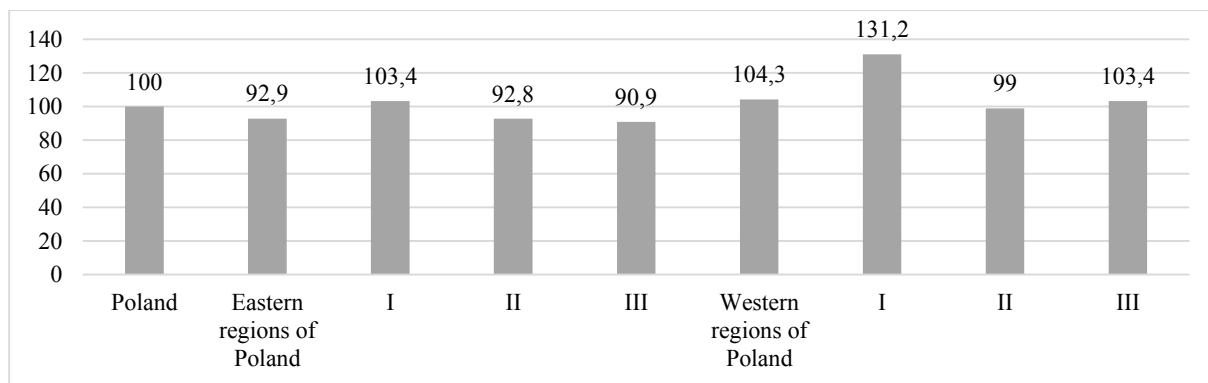
Table 6.

Share of investment expenditures in total expenditures of communes' budgets depending on the dynamics of population changes in the eastern and western regions of Poland in 2018-2020 (in %)

Description	Overall	Group of municipalities *:		
		I	II	III
Eastern regions of Poland				
Number of communes	18.7	20.8	18.6	18.4
Volatility coefficient V (%)	35.1	35.4	35.4	34.5
Minimum	4.9	7.1	5	4.9
Maximum	42.3	36.6	42.3	35.4
Western regions of Poland				
Number of communes	16.5	22.1	15.1	17.1
Volatility coefficient V (%)	46.2	33.9	44.4	49.5
Minimum	2.6	3.5	3	2.6
Maximum	42.1	39.2	40	42.1

Explanation: * I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Source: Bank Danych Lokalnych, GUS w Warszawie.



Explanation: I – communes with an increase in the number of inhabitants in the years 1995-2020; II – communes with population stagnation in 1995-2020; III – communes with a population decline in 1995-2020.

Figure 1. Scoring of the financial situation of municipalities depending on the dynamics of changes in the number of their population in the eastern and western regions of Poland compared to the country for 2018-2020 (Poland = 100.0 points). Source: Bank Danych Lokalnych, GUS w Warszawie.

Figure 1 shows the results of the scoring on the financial situation of municipalities without cities with powiat status, distinguished according to the dynamics of changes in the number of their population in the eastern and western regions of Poland against the background of the entire country for 2018-2020. It should be noted that the results unequivocally confirm the research hypothesis presented in the article, which assumes that communes in the western regions of Poland have a better financial situation compared to eastern regions, especially those with an increase in the number of inhabitants.

4. Summary and conclusions

The analysis of statistical data carried out in the article showed that communes without cities with powiat status dominate both in the eastern and western regions of Poland with a stagnant population, while the percentage of communes with an increase in the number of inhabitants is by far the smallest, while in the western regions there are better demographic conditions the economy and financial situation of communes in comparison to eastern regions.

In Poland, there is a differentiation between communes without cities with powiat status in terms of the average value of total income and the communes' own income per capita budget, but they are higher in communes in western regions of Poland compared to eastern regions and with the average for the country. Additionally, both of these income values differ depending on the dynamics of changes in the population of the commune, both in the eastern and western regions of Poland, and they are the highest in the group of communes with an increase in population, especially in the western regions.

In Poland, there is a differentiation between municipalities without powiat status cities in terms of the share of own income in the total income of municipal budgets, and it is higher in municipalities in western regions than in eastern regions, and on the average for the country.

Additionally, it varies depending on the dynamics of changes in the population in a commune, both in the eastern and western regions of Poland, but it is the highest in the group of communes with an increase in population, especially in the western regions.

In Poland, there is a differentiation between municipalities without poviatic cities in terms of the average value of total expenditure and capital expenditure per capita budgets of municipalities, but the average value of total expenditure per capita is higher in municipalities in western regions, and the average value of investment expenditure per capita in communes of eastern regions. In addition, both of these expenditure values vary depending on the dynamics of changes in the population of a commune, both in the eastern and western regions of Poland, and are the highest in the group of communes with an increase in the number of inhabitants, and especially in the western regions.

In Poland, there is a differentiation between communes without cities with poviatic status in terms of the share of investment expenditure in the total expenditure of communes' budgets, and it is higher in communes of eastern regions of Poland compared to western regions and to the country's average. Additionally, it varies depending on the dynamics of changes in the population of a commune, both in the eastern and western regions of Poland, but it is the highest in the group of communes with an increase in population, especially in the western regions.

The analysis of statistical data carried out in the article showed that changes in the number of population (inhabitants) constitute essential demographic conditions for the economy and financial situation of municipalities without poviatic status in the analyzed regions of Poland. It also confirmed the research hypothesis, which assumes that the communes in the western regions of Poland are in a better financial situation compared to the eastern regions, especially those with an increase in the number of inhabitants.

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