

DIFFERENCES IN THE FINANCIAL SITUATION OF LAND COUNTIES IN POLAND DEPENDING ON THEIR POPULATION DENSITY

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Purpose: The aim of the article is to identify and assess the differences in the financial situation of counties in Poland, i.e., counties units of local government without cities with counties rights, depending on their population density.

Design/methodology/approach: The article identifies and assesses the differences in the financial situation of counties in Poland, i.e., powiat local government units without cities with powiat rights, depending on their population density. The empirical material used in the article concerns all land counties in Poland, i.e. powiat local government units without cities with powiat rights. The numerical data come from the Central Statistical Office (Local Data Bank), and the time scope of the research covers the years 2020-2022. The collected and organised empirical material was prepared in tabular and graphic form, using the comparative analysis. Moreover, the following measures of descriptive statistics were used to analyse the data: dynamics index, mean, and coefficient of variation. Additionally, a point assessment of all diagnostic features illustrating the financial situation in separate groups of land counties depending on their population density against the background of all land counties in Poland for the years 2020-2022, which is a new approach to the research problem discussed in the article.

Findings: Analysis of the statistical data confirmed the research hypothesis put forward in the article, which assumes that population density is an important factor shaping the financial situation of land counties in Poland, with the group of counties with the lowest population density having a better situation in this respect and the group with the lowest population density having the worst situation in group of counties with the highest population density.

Originality/value: The originality of the work lies in the author's approach to the analysis of the undertaken research issues and the point assessment of the financial situation in separate groups of land counties depending on their population density against the background of all land counties in Poland for the years 2020-2022. The work may be useful and is addressed primarily to politicians at the central level, as well as to local government officials responsible for public local government finances, as well as for creating the conditions, opportunities, and directions of local socio-economic development of powiat local government units and other decision-makers implementing local development policy in Poland.

Keywords: financial situation, land countiess in Poland, population density.

Category of the paper: research paper.

1. Introduction

The issue of regional and local development in the context of socio-economic growth and development processes is important not only for building social prosperity, but also for maintaining competitive advantages of enterprises, regional and local economies and the national economy. This also translates into the social and political situation, as well as the development of financial flows, investments, and the settlement network. From the point of view of society and economy as well as the socio-economic development of the country, regional and local disproportions are particularly important in this respect, and are common in countries with market economies, regardless of their location, history, culture or level of development. It should be added that the scale of these disproportions in individual countries varies, and their consequences for societies and economies are of different importance and significance. Therefore, reducing them is a priority and a subject of interest for both the entire European Union and its individual member states, including Poland. One of the priorities of the European Union's cohesion policy is to support development in a way that should lead to reducing development disproportions between Member States, their regions, and local communities. Its effect is to increase the competitiveness of the regional and to local economy and improve the quality of life of residents. In this context, the territorial approach in the process of improving cohesion, understood as the geographical space and its inhabitants, is increasingly emphasised (Polverari, Bachtler, 2005; Lambregts, Janssen-Jansen, Haran, 2008; Czudec, Majka, Zając, 2018; Miś, Zając, 2020; Kraska, Kot, 2021).

Local government is a key institution responsible for the implementation of many tasks aimed at meeting the needs of primary importance for residents, as well as creating socio-economic development in the regional and local system. The effectiveness of the implementation of tasks by local government units is largely dependent on effective financial management, and their implementation is guaranteed by adequate economic potential. Therefore, the quality of the local government finance system, considered as a set of institutions, legal norms, and tools defining the principles of local government financial management and used to conduct it, is important in this respect (Grzebyk, Sołtysiak, Stec, Zając, 2020; Kata, Czudec, Zając, Zawora, 2022).

The financial management of local government units is a complex process, carried out with respect to legislative requirements within the local government budget. Ensuring the efficient and proper operation of this specific economy, which consists primarily of cash and property resources, requires strict compliance with many legal acts, standards, and budget principles. As part of the financial management of local government units, various public tasks and financial operations are carried out relating to individual departments of public finances, and various legal and financial methods and instruments are used (Sołtyk, 2017; Sołtysiak, 2017; Sołtysiak, Suraj, 2018).

The financial management of local government units involves collecting income and revenues as well as making expenses and expenditures in order to perform their own and commissioned tasks, which determines their development and competitiveness and ensures the fulfilment of the current and future needs of residents. When assessing the income side of the budget of local government units, it is important to examine the state and changes in the level of income, its dynamics and structure, as well as spatial differentiation. However, the analysis and assessment of the expenditure side of the budget allows us to determine to what extent financial resources are allocated to solving current problems, and to what extent they are allocated to the promotion, investment, and development of local government units and to improving and increasing their competitiveness (Błachut, Cierpień-Wolan, Czudec, Kata, 2018; Grzebyk, Sołtysiak, Stec, Zajac, 2020; Kata, Czudec, Zajac, Zawora, 2022, Sołtysiak, Zajac, 2023).

Investment expenditure in the financial management of local government units, in addition to their own income, is an important factor characterising their development possibilities. The wealth of these individuals clearly affects their investment opportunities. Entities with higher budget revenues per capita usually also have greater investment opportunities. In addition, a larger share of own revenues in total budget revenues allows local governments to use financial resources more freely, and thus creates the opportunity to allocate larger amounts for investments. This is also important from the point of view of the issue of income independence of local government units, understood as providing them with their own sources of income and free disposal of these funds. It should be added that the financial situation of local government units and the possibilities of implementing investment projects are of key importance for their development. Our financial resources constitute the foundation for the functioning of local government units and determine the implementation of all tasks, including those of an investment nature. However, the implementation of investments, especially those aimed at meeting the needs of residents and improving their existence and quality of life, also has a positive impact on the improvement and increase in the competitiveness of local government units (Kokot-Stępień, 2017; Dziemianowicz, Kargol-Wasiluk, Bołtromiuk, 2018; Czudec, 2021; Szolno-Koguc, 2021).

The financial management of the public sector units, including the local government units, should support rational spending of public funds and making appropriate decisions about the management of these funds. The basic goal in the financial management process should be to maximise the benefits from available resources and minimise losses and risks related to the activities undertaken, which especially applies to development projects, where benefits and costs are usually spread over time. Financial management should therefore focus on:

- shaping the amount and structure of budget revenues and determining the methods and sources of their acquisition,
- shaping the capital and property structure that guarantees maintaining economic and financial balance,

- allocating available financial resources,
- shaping the size and structure of expenses in connection with the current and investment activities carried out,
- influencing the level of risk accompanying the decisions made,
- monitoring and forecasting the financial and property situation,
- current assessment of the financial and property situation of the local government enabling the assessment of compliance of the course of current, investment and financial activities with the adopted assumptions,
- assessing the impact of external conditions on investment and financial decisions,
- formulating conclusions and recommendations regarding running a business,
- setting a financing strategy.

A properly managed entity should, in the long term, develop the so-called "good indicators", i.e. those that prove its development. Particularly noteworthy is the concept of the financial situation of a local government unit, interpreted as the ability of the local government to balance recurring expenditure needs with recurring sources of income, while simultaneously implementing tasks resulting from legal provisions that are intended to further increase income and maximise public utility for its residents (Mrówczyńska-Kamińska, Kucharczyk, Średzińska, 2011; Adamczyk, Dawidowicz, 2016; Kowalska, Możyłowski, Śmietanka, 2019; Kata, Czudec, Zając, Zawora, 2022; Ociepa-Kicińska, Gorzałczyńska-Koczkodaj, Brzozowska, Pluskota, 2022).

When defining the financial situation of a local government unit, the following are most often emphasised: the possibility of financing services on a continuous basis, the comprehensiveness of healthy finances, the ability to repay liabilities, and maintaining the current level of services while maintaining resistance to the risk of changes occurring over time. It seems that the most accurate interpretation is the financial situation of a local government unit, referring to its ability to meet its financial obligations and maintain services provided to the local community (Dylewski, Filipiak, Gorzałczyńska-Koczkodaj, 2011; Wiśniewski, 2011; Kopyściański, Rólczyński, 2014; Zawora, 2015; Adamczyk, Dawidowicz, 2016; Kotowska, 2016; Natrini, Taufiq Ritonga, 2017; Ociepa-Kicińska, Gorzałczyńska-Koczkodaj, Brzozowska, Pluskota, 2022).

The financial situation of a local government unit is its financial condition in a specific period of time, resulting from its income and its structure, expenses and their structure, the degree of use of repayable funds, activity and effectiveness in obtaining extra-budgetary funds, as well as the efficiency of management of financial and material resources. Local authorities should care about the good financial situation of a given territorial unit, as it is an element of its competitiveness. In addition, it is evidenced, among other things, the ability to perform tasks, achieve budget balance, as well as increase assets and to implement and satisfy the needs of residents. Additionally, the good financial situation of local government

units and the stability of the public services they provide to residents undoubtedly have a clear and positive impact on broadly understood socio-economic development, not only in the scale of a given local environment or region, but even in the entire country. Among a number of various conditions shaping the financial management of a local government unit, including its financial situation, the most general categories include exogenous, endogenous, and mixed conditions. Moreover, certain common categories can be distinguished, which include: social, economic, environmental, and spatial, as well as institutional, legal, and political conditions. However, to a large extent, the economy and financial situation of a local government unit are shaped by socio-demographic factors, especially such as: population number and its changes over time and population density, and higher population density may lead to a weakening of the financial situation in these units. Moreover, the catalogue of such factors is sometimes expanded to include events whose effects cannot be predicted and which may fundamentally change the economic situation and the operating conditions of local government units. An event in 2020 was the emergence of the coronavirus pandemic. It should be added that the analysis of the financial situation of a local government unit provides information about its current and future property and financial situation, and also allows to determine its possibilities and development prospects (Ossowska, Ziemińska, 2010; Zawora, 2015; Pedro Rodríguez Bolívar, Navarro Galera, Alcaide Muñoz, Deseada López Subires, 2016; Świrska, 2016; Bień, 2017; Standar, 2017; Stanny, Strzelczyk, 2018; Wójtowicz, 2018; Grzebyk, Sołtysiak, Stec, Zając, 2020; Czudec, 2021; Zawora, 2023).

2. Research aim, empirical material, and research methods

The aim of the article is to identify and assess the differences in the financial situation of counties in Poland, i.e., counties units of local government without cities with counties rights, depending on their population density.

The article presents a research hypothesis that assumes that population density is quite an important factor shaping the financial situation of land counties in Poland, with the group of counties with the lowest population density having a better situation in this respect, and the worst situation in the group of counties with the highest population density.

The empirical material used in the article concerns all land counties in Poland, i.e. powiat local government units without cities with powiat rights. The numerical data come from the Central Statistical Office (Local Data Bank), and the time scope of the research covers the years 2020-2022. The collected and organised empirical material was prepared in tabular and graphic form, using the comparative analysis. Moreover, the following measures of descriptive statistics were used to analyse the data: dynamics index, mean, and coefficient of variation.

In order to achieve the aim of the work, that is, identify and assess the diversification of the financial situation of land counties in Poland, that is, territorial self-government units of counties without cities with county rights, depending on their population density, the following diagnostic features were analysed to illustrate it in the years 2020-2022:

- total revenues of land counties budgets per capita (PLN);
- own revenues of land counties budgets per capita (PLN);
- share of own revenues in the total revenues of local county budgets (%);
- total expenditure of land counties budgets per capita (PLN);
- investment expenditure of land counties budgets per capita (PLN);
- share of investment expenditure in total expenditure of the budgets of land counties (%).

For the purposes of the analysis, the article distinguishes three groups of counties depending on their population density, i.e.:

- I. land counties with the lowest population density (up to 70 people per 1 km²);
- II. land counties with an average population density (70 to 130 people per 1 km²);
- III. land counties with the highest population density (130 people and more per 1 km²).

Additionally, the article provides a point assessment of all diagnostic characteristics that illustrates the financial situation in separate groups of land counties depending on their population density against the background of all land counties in Poland for the years 2020-2022. Individual diagnostic characteristics were compared with the average for all land counties, which was taken as 100 points, and their advantage or underweight was assessed accordingly in the designated groups of these counties. Then, all points were summed and the average was calculated (Figure 1). It should be noted that this is a new approach to the analysis of the research issues discussed in the article.

3. Results

In the territorial division of Poland, there are 314 land counties, i.e., poviats local government units without cities with county rights, among which the largest group are land counties with the lowest population density, i.e., up to 70 people per 1 km² (134 units, which is 42.7% overall). Next, this applies to the group of land counties with an average population density, i.e. 70 to 130 people per 1 km² (116 units, which is 36.9% of the total), while the least numerous is the group of land counties with the highest population density, i.e. 130 people and more per 1 km² (64 units, which is 20.4% of the total) (Table 1).

The data in Table 1 show that in land counties in Poland, the average value of total budget revenues per capita increased in the years 2020-2022, and this also applies to all their groups depending on population density. However, in the years under study, there is variation in the average value of total income of the budgets of land counties per capita between separate groups

of these counties depending on their population density. It is definitely the highest in the group of land counties with the lowest population density. However, it is clearly the lowest in the group of land counties with the highest population density. In turn, the differentiation of this feature between individual counties in Poland in 2020-2022 is small, and this also applies to all their groups depending on population density.

Despite the fact that in landed counties in Poland, the average value of total budget revenues per capita increased in the years 2020-2022, the dynamics of this phenomenon is rather small and there are no major differences in this respect between separate groups of counties depending on their density. Additionally, the differentiation of this characteristic between individual land counties in Poland in the examined years is very small, and is the smallest in the group of land counties with the highest population density, i.e. this group of counties is the most homogeneous in this respect (Table 1).

Table 1.

Total revenues of land counties budgets per capita in Poland in 2020-2022 (PLN)

Specification	Years			Average for years 2020-2022	Dynamics, year 2020 = 100
	2020	2021	2022		
Total land counties (N = 314)					
Mean	1 426,8	1 487,7	1 639,0	1 517,8	115,4
Coefficient of variation V (%)	21,0	19,8	21,7	20,1	11,0
Land counties with the lowest population density (up to 70 people per 1 km ² – N = 134)					
Mean	1 565,7	1 623,4	1 814,9	1 668,0	116,8
Coefficient of variation V (%)	19,4	19,1	19,8	18,4	12,3
Land counties with average population density (70 to 130 people per 1 km ² – N = 116)					
Mean	1 371,7	1 430,0	1 567,0	1 456,3	114,9
Coefficient of variation V (%)	18,9	16,2	18,8	17,1	11,2
Land counties with the highest population density (130 people and more per 1 km ² – N = 64)					
Mean	1 236,1	1 308,1	1 400,9	1 315,0	113,5
Coefficient of variation V (%)	17,4	17,8	18,3	17,3	6,8

Source: Central Statistical Office in Warsaw.

Table 2.

Own revenues of land counties budgets per capita in Poland in 2020-2022 (PLN)

Specification	Years			Average for years 2020-2022	Dynamics, year 2020 = 100
	2020	2021	2022		
Total land counties					
Mean	546,4	531,9	623,6	567,3	115,9
Coefficient of variation V (%)	23,7	24,8	26,8	22,6	19,0
Land counties with the lowest population density					
Mean	561,7	534,0	663,9	586,5	120,5
Coefficient of variation V (%)	25,5	28,6	30,3	25,2	21,2
Land counties with average population density					
Mean	523,8	517,1	595,5	545,5	115,4
Coefficient of variation V (%)	21,5	21,0	21,7	19,3	17,5
Land counties with the highest population density					
Mean	555,3	554,3	590,0	566,5	107,2
Coefficient of variation V (%)	22,3	22,0	22,3	20,8	12,2

Source: Central Statistical Office in Warsaw.

Analysing the data in Table 2, it should be stated that the average value of own income of the budgets of land counties per capita in Poland increased slightly in the years 2020-2022, and this also applies to all their groups depending on population density. It should be added that there are no major differences in terms of the average value of own income of the counties' budgets per capita between their groups depending on population density. However, the differences in this characteristic between individual counties in Poland in the examined years are small, and this also applies to all their groups depending on population density (Table 2).

The growth dynamics of the the average value of own income of the budgets of land counties per capita in Poland in 2020-2022 is rather low, with the highest growth rate in the group of land counties with the lowest population density, and the lowest in the group of land counties with the highest population density. The variation in this characteristic between individual land counties in Poland in 2020-2022 is also small, but it is the smallest in the group of counties with the highest population density, so this group of counties is the most homogeneous in this respect (Table 2).

Table 3.

Share of own revenues in the total revenues of the budgets of land counties in Poland in 2020-2022 (%)

Specification	Years			Average for years 2020-2022
	2020	2021	2022	
Total land counties				
Mean	39,2	36,5	38,7	38,1
Coefficient of variation V (%)	23,8	24,6	21,6	22,2
Land counties with the lowest population density				
Mean	36,2	33,2	36,7	35,4
Coefficient of variation V (%)	21,1	23,7	20,2	19,9
Land counties with average population density				
Mean	38,9	36,7	38,5	38,1
Coefficient of variation V (%)	21,5	22,2	19,5	20,0
Land counties with the highest population density				
Mean	45,9	43,1	43,0	44,0
Coefficient of variation V (%)	23,7	21,3	23,3	22,2

Source: Central Statistical Office in Warsaw.

The data in Table 3 show that, on average, in land counties in Poland, the share of own revenues in total budget revenues remains at a similar level in 2020-2022. There are no major differences in this regard between the groups of land counties depending on their population density, and the group of land counties with the highest population density has the highest average in this respect in the years examined. However, on average, the lowest share of own revenues in total budget revenues occurs in the group of land counties with the lowest population density.

Furthermore, it should be noted that the differentiation of this feature between individual land counties in Poland in 2020-2022 is small, and this also applies to all their groups depending on the density of the population (Table 3).

The data in Table 4 shows that the average value of total budget expenditure per capita in land counties in Poland increased in the years 2020-2022 and this applies to all their groups depending on population density. However, the average value of the analysed budget expenditure varies between specific groups of counties depending on their population density. It is the highest in the group of land counties with the lowest population density, and the lowest in the group of land counties with the highest population density. However, the differences in this characteristic between individual counties in Poland in 2020-2022 are small, and this applies to all their groups depending on population density.

Table 4.

Total expenditure of the budgets of land counties per capita in Poland in 2020-2022 (PLN)

Specification	Years			Average for years 2020-2022	Dynamics, year 2020 = 100
	2020	2021	2022		
Total land counties					
Mean	1 336,3	1 414,3	1 663,4	1 471,3	125,9
Coefficient of variation V (%)	22,9	21,3	21,4	20,8	12,8
Land counties with the lowest population density					
Mean	1 468,8	1 548,2	1 821,4	1 612,8	125,8
Coefficient of variation V (%)	21,9	20,4	20,2	19,4	14,9
Land counties with average population density					
Mean	1 290,5	1 354,8	1 596,5	1 413,9	124,8
Coefficient of variation V (%)	19,7	17,9	18,7	17,8	11,7
Land counties with the highest population density					
Mean	1 141,6	1 241,6	1 453,8	1 279,0	128,3
Coefficient of variation V (%)	19,7	19,3	18,4	18,4	9,6

Source: Central Statistical Office in Warsaw.

The growth dynamics of the average value of total expenditures of counties budgets per capita in Poland in 2020-2022 is small, and there are no major differences in this respect between their groups depending on population density. However, the variation in this characteristic between individual land counties in Poland in the years examined is very small, but it is the smallest in the group of land counties with the highest population density, i.e., this group of counties is the most homogeneous in this respect (Table 4).

Table 5.

Investment expenditure of the budgets of land counties per capita in Poland in 2020-2022 (PLN)

Specification	Years			Average for years 2020-2022	Dynamics, year 2020 = 100
	2020	2021	2022		
Total land counties					
Mean	215,9	219,0	317,9	250,9	196,7
Coefficient of variation V (%)	69,2	57,1	62,3	51,5	82,8
Land counties with the lowest population density					
Mean	256,1	258,6	371,3	295,3	193,5
Coefficient of variation V (%)	71,0	58,1	65,1	52,6	78,6
Land counties with average population density					
Mean	205,5	194,9	294,7	231,7	199,3
Coefficient of variation V (%)	60,9	50,5	53,3	43,8	86,9
Land counties with the highest population density					
Mean	150,6	179,8	248,2	192,9	198,6
Coefficient of variation V (%)	44,9	44,8	47,9	36,3	84,6

Source: Central Statistical Office in Warsaw.

The data in Table 5 show that the average value of investment expenditure of counties budgets per capita in Poland increased in the years 2020-2022 and this applies to all their groups depending on population density. However, there is variation in the average value of the analysed budget expenditure between separate groups of land counties, depending on their population density. Because it is the highest in the group of counties with the lowest population density and the lowest in the group of counties with the highest population density. In turn, the differentiation of this feature between individual land counties in Poland in the years 2020-2022 is large, and it is the smallest in the group of counties with the highest population density, i.e., this group of counties is the most homogeneous in this respect.

The dynamics of growth in the average value of investment expenditure of the budgets of land counties per capita in Poland in the years 2020-2022 is high and there are no major differences in this respect between their groups depending on population density. The diversity of this characteristic between individual counties in Poland in the examined years is also large and applies to all their groups depending on the density of the population (Table 5).

Analysing the data in Table 6, it should be stated that, on average, in land counties in Poland, the share of investment expenditure in total budget expenditure increased slightly in the years 2020-2022 and this applies to all their groups depending on population density. Moreover, the share of investment expenditure in total budget expenditure varies slightly between the separate groups of counties, with the highest share in the group of land counties with the lowest population density and the lowest in the group of land counties with the highest population density.

In turn, the differentiation of this feature between individual land counties in Poland in 2020-2022 is large, but it is the smallest in the group of counties with the highest population density, i.e. this group of counties is the most homogeneous in this respect (Table 6).

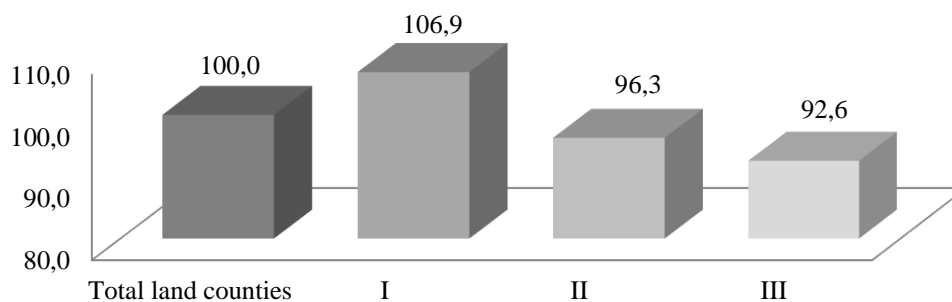
Table 6.

Share of investment expenditure in total expenditure of the budgets of land counties in Poland in 2020-2022 (%)

Specification	Years			Average for years 2020-2022
	2020	2021	2022	
Total land counties				
Mean	15,8	15,4	18,9	16,7
Coefficient of variation V (%)	55,5	48,8	51,5	44,6
Land counties with the lowest population density				
Mean	17,1	16,6	20,2	18,0
Coefficient of variation V (%)	58,3	51,8	56,2	48,1
Land counties with average population density				
Mean	15,7	14,5	18,4	16,2
Coefficient of variation V (%)	53,6	46,5	46,6	41,4
Land counties with the highest population density				
Mean	13,3	14,7	17,1	15,0
Coefficient of variation V (%)	43,6	41,8	44,5	36,6

Source: Central Statistical Office in Warsaw.

Figure 1 presents the results of the point assessment of all diagnostic features that illustrate the financial situation in separate groups of land counties depending on their population density against the background of all land counties in Poland for the years 2020-2022. On this basis, it can be concluded that the land counties in Poland are diverse in terms of their financial situation. A better financial situation compared to all land counties in Poland occurs in the group of land counties with the lowest population density, and the worst situation in this respect is in the group of land counties with the highest population density.



Explanations: I - land counties with the lowest population density; II - land counties with average population density; III - land counties with the highest population density.

Figure 1. Point assessment of the financial situation in separate groups of land counties depending on their population density compared to all land counties in Poland for the years 2020-2022 (land counties in total = 100.0 points).

Source: Own study.

The analysis of the collected statistical data carried out in the article therefore confirms the research hypothesis, which assumes that population density is a quite important factor shaping the financial situation of land counties in Poland, with the group of counties with the lowest population density having a better situation in this respect, and the group of counties with the lowest population density having the worst situation. It is in the group of counties with the highest population density.

4. Summary and conclusions

The analysis of the collected statistical data carried out in the article shows that:

- ✓ in land counties in Poland, the average value of total budget revenues per capita increased in the years 2020-2022 and this applies to all their groups depending on population density. However, the dynamics of this phenomenon is low and its differences between individual counties in Poland in the analysed years are very small. However, the separate groups of land counties, depending on their population density, differ in terms of the average value of total budget revenues per capita. The highest average value of these incomes in the examined years is recorded in the group of

counties with the lowest population density, while the lowest is in the group of counties with the highest population density. In turn, the differentiation of this feature between individual counties in Poland in 2020-2022 is small, and this applies to all their groups depending on population density;

- ✓ the average value of own revenues of counties budgets per capita in Poland increased slightly in the years 2020-2022 and this applies to all their groups depending on population density. Therefore, both the dynamics of this phenomenon and its differences between individual counties in Poland in 2020-2022 are small. Moreover, there are no major differences in terms of the average value of own income of the budgets of land counties per capita between their groups depending on population density, and the differences in this feature between individual counties are small;
- ✓ on average, in land counties in Poland, the share of own income in total budget revenues remains at a similar level in 2020-2022 and there are no large differences in this respect between their groups depending on population density, and the differentiation of this feature between individual counties is little;
- ✓ in land counties in Poland, the average value of total budget expenditure per capita increased in the years 2020-2022 and this applies to all their groups depending on population density. However, the dynamics of this phenomenon is low and its differences between individual counties are very small. However, the separated groups of land counties, depending on their population density, differ in terms of the average value of total budget expenditure per capita, with the highest value in the group of counties with the lowest population density and the lowest in the group of counties with the highest population density. However, the differences in this feature between individual counties are small, and this applies to all their groups depending on population density;
- ✓ the average value of investment expenditures of land counties budgets per capita in Poland increased in the years 2020-2022, and the dynamics and differentiation of this phenomenon between counties are large and there are no major differences in this respect between separate groups of counties depending on their population density. However, the average value of the analysed budget expenditure, however, varies between the separate groups of counties, with the highest in the group of counties with the lowest population density and the lowest in the group of counties with the highest population density. Moreover, the differentiation of this characteristic between individual land counties in Poland in 2020-2022 is large;
- ✓ on average, in land counties in Poland, the share of investment expenditure in total budget expenditure increased slightly in the years 2020-2022 and this applies to all their groups depending on population density. Moreover, the share of investment expenditure in total budget expenditure varies slightly between the separate groups of counties, but this feature varies significantly between individual counties.

Moreover, the analysis of statistical data carried out in the article and the point assessment made in it regarding the financial situation in separate groups of land counties depending on their population density compared to all land counties in Poland confirmed the research hypothesis.

Therefore, population density is an important factor shaping the financial situation of land counties in Poland, with the group of counties with the lowest population density having a better situation in this respect, and the group of counties with the highest population density having the worst situation.

The results of the the analysis of statistical data presented in the article provide important and up-to-date information on the financial situation of land countiess in Poland. It may be useful both for politicians at the central level and for local government officials responsible for public local government finances, as well as for creating the conditions, opportunities, and directions of local socio-economic development of powiat local government units and for other decision-makers implementing local development policy in Poland.

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