PROPERTY TAX POLICY OF RURAL AND URBAN-RURAL MUNICIPALITIES IN POLAND

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ABSTRACT

The article presents research on the local property tax policy of rural and urban-rural municipalities in Poland. Various methods were used to investigate the data interdependencies of mathematical statistics (Pearson's correlation test, Spearman's correlation test and Pearson's independence test). For direct data and coefficients, Pearson's classic correlation was used. With regard to the processed, dichotomic and enumerated data (including the contingency tables), Spearman's rank correlation was used. The study showed that the tax policy of the analysed municipalities was differentiated and could, under certain conditions, give rise to a positive upward tendency of incomes generated in property tax – which should be seen as an original contribution of work from the authors of this article.

Key words: tax policy, property tax, lowering of tax rates, rural municipalities, urban-rural municipalities

JEL codes: E62, H71

INTRODUCTION

Property tax is one of the most important and fiscally efficient local taxes. Local entities can use it to conduct their own tax policy. The tax authority in the area of property tax is reflected primarily in the reduction and differentiation of tax rates and topical exemptions (additional to those introduced by law on local taxes and charges [1991 Law on local taxes and charges]). The article attempts to examine the fiscal implications of tax authority decisions in relation to this tax. In order to grasp the impact of the tax policy of municipalities on the size of the funds gained from the property tax, the analysis covered the period 2007––2017. It refers to the data from all rural and urban-rural municipalities in Poland. In 2017, an amount of PLN 21,828.97 million in property taxes fed the budget of total municipalities, of which just over 45% concerned rural and urban-rural municipalities.

The article attempts to answer two research questions:
– What is the impact of the reductions in property tax rates on the size of the budget revenue of rural and urban-rural municipalities?
– How diverse is the tax policy of these entities in relation to the category of taxpayer?

THEORETICAL BASIS

Globally, research on local tax policies focuses mainly on the motives of the tax policy decisions taken by local authorities (e.g. the concept of an average voter[1]; dependence of tax policy on the political cycle[2]; party

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model and the model of environmental diversification of tax policies[3]; tax competition[4]). In most cases, the local tax policy is based on real property tax.

The local tax policy also depends on the degree of decentralization and the scope of functions entrusted to municipalities. An interesting study was conducted by Swianiewicz [2014] defining the types of local authorities in Eastern Europe. It turned out that Poland, along with countries like Hungary and Slovakia, belongs to the so-called champions of decentralization, which are characterized by a high degree of financial autonomy resulting from the right to decide on local tax rates or freedom to finance investment projects.

When assessing the revenue autonomy of municipalities in Poland, it should be borne in mind that due to the complexity of legal, socio-economic or political processes, it is difficult to clearly identify the framework and criteria defining the actual autonomy in pursuing financial policy. The autonomy of local government units is dependent on numerous interconnected factors of a social, economic, spatial and territorial character. In their research of this area, Brzozowska and Kogut-Jaworska [2016] concluded that changes in the formation of basic figures characterising the revenue autonomy of local government units indicate that in recent years, the process of improving the financial autonomy of municipalities has been under way. There has been a rise in income, including their own income. At the same time, both revenues from local taxes and taxes from the state budget have been on the rise. In parallel, an explicit improvement is observed in the level of financial autonomy indicators for urban and rural municipalities. Real property tax takes a permanent and significant place in their budgets.

The most comprehensive tax policy research of local governments in Poland was conducted by Łukomska and Swianiewicz [2015]. They investi-gated, for instance, motives and behaviour of municipal authorities in the imposition of local taxes, referring to the cited theoretical concepts of local tax policies.

The literature insufficiently undertakes detailed research on specific categories of municipalities, as for example in this article, the rural municipalities. The topic has recently been handled among other authors by Felis, Rosłaniec and Szlęzak-Matusewicz, but their studies concern only agricultural tax. Their conclusions are:

– Agricultural tax for many rural municipalities is an important source of income, and their contingency depends on the price of rye which determines the rates [Felis et al. 2018b];
– The smaller the share of agricultural tax in wealth taxes, the more effective the tax policy. The reduction in the agricultural tax rate correlates positively with the increase in the income from agricultural tax in the current year, and also in the next year, though less [Felis et al. 2018a].

MATERIAL AND METHODOLOGY OF RESEARCH

The local tax policy research on property tax makes use of official data from the Rb-27s reports on the implementation of the budget revenue plan of the local government units. The following items are crucial for the analysis and conclusions: total revenue[5] (also as section 756), income from wealth taxes[6] and from property tax.

The analysis of the effectiveness of the tax policy of rural and urban-rural municipalities uses different methods to examine the interdependencies of mathematical statistics data (Pearson's correlation test, Spearman's correlation test and Pearson's independence test). For direct (numerical) data and coefficients

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[1] Research conducted by Downs [1957].

[2] Research conducted by Mouritzen [1989].

[3] See e.g. Sharpe and Newton [1984].

[4] A summary of international research within the mainstream research on tax competition at a local level can be found in two publications: Blöchliger [2013] as well as Blöchliger and Pinero-Campos [2011].

[5] Incomes from property taxes, tax on civil law activities, inheritance and gift tax, tax card, shares in taxes from state budget income, various local charges.

[6] Incomes from property tax, agricultural tax, forestry tax and transport tax.

(numerical measures of relative growth), Pearson's classic correlation (r) is used to measure the strength of the linear dependence of the variables tested. For processed, dichotomic and enumerated data (including contingency tables), Spearman's rank correlation test (ρ) is used. The contingency tables are also analysed by Pearson's independence test (χ^2), which can indicate data dependence even if the data are not linearly dependent or even non-monotonic. The analysis is carried out for aggregated cross-sectional time data: for voivodships (16), and the years 2007–2017 (11). The main variables in the analysis of the tax policy of municipalities are d1UD (the growth in the share of the amounts resulting from the reduction in the upper tax rates in tax revenues, expressed in %) and d2D (a variable growth showing a relative tax income growth, expressed in %). Tax policy is understood as a possible "positive" effect of variable d1UD in a particular year on d2D variable in the next year. It is easy to guess that the correlation of d1UD in a particular year with d2D in the same year is negative – larger reductions in tax rates result in lower tax incomes. However, a positive correlation of d1UD in a particular year with d2D in the following year would be a certain indication of the effectiveness of lowering tax rates as an instrument of tax policy.

RESULTS AND DISCUSSION

Property tax is the most important source of income of municipalities in local taxes. In the years 2007––2017, it amounted in urban-rural municipalities on average to almost 84% of local tax revenues with the active authority of municipalities and almost 75% in rural municipalities. With regard to the total tax incomes, these relations are, respectively, about 37.5% for urban-rural municipalities and 35.5% for rural municipalities. In order to illustrate the degree of use of municipality competence in the development of property tax revenues, a comparison was made of the fiscal effects of the reduction in rates with income earned from this tax (Tables 1–3). The relation of these figures shows what could be the relative in-

Table 1. Effects of the reduction in property tax rates in the period of 2007–2017

Year	Incomes from property tax (million PLN)	Lost incomes due to reduced rates (million PLN)	Lost income/income from property tax (%)
Urban-rural municipalities			
2007	2 725.78	508.56	18.66
2008	2 883.80	494.04	17.13
2009	3 092.29	531.54	17.19
2010	3 284.53	629.49	19.17
2011	3 552.22	697.30	19.63
2012	3 867.78	688.05	17.79
2013	4 140.79	779.48	18.82
2014	4 314.91	802.76	18.60
2015	4 520.67	904.51	20.01
2016	4 643.27	707.97	15.25
2017	4 968.77	684.53	13.78
Rural municipalities			
2007	2 626.02	521.80	19.87
2008	2 767.25	523.14	18.90
2009	2 928.54	575.22	19.64
2010	3 148.71	649.75	20.64
2011	3 386.23	740.98	21.88
2012	3 701.09	768.94	20.78
2013	4 042.64	860.88	21.29
2014	4 284.02	927.74	21.66
2015	4 424.37	981.03	22.17
2016	4 592.22	821.71	17.89
2017	4 898.27	802.88	16.39

Source: Authors' own material on the basis of the data in the Rb-27s report.

Table 2. Effects of the reduction in property tax rates in relation to legal persons in the period of 2007–2017

Year	Incomes from property tax (million PLN)	Lost incomes due to reduced rates (million PLN)	Lost income/income from property tax (%)
Urban-rural municipalities			
2007	2 064.04	250.24	12.12
2008	2 157.24	238.82	11.07
2009	2 302.75	256.48	11.14
2010	2 436.94	320.21	13.14
2011	2 632.02	357.90	13.60
2012	2 859.20	351.68	12.30
2013	3 049.86	404.90	13.28
2014	3 168.41	428.13	13.51
2015	3 318.28	506.66	15.27
2016	3 376.17	331.00	9.80
2017	3 635.47	311.43	8.57
Rural municipalities			
2007	1 968.16	219.92	11.17
2008	2 039.67	218.53	10.71
2009	2 134.85	239.41	11.21
2010	2 289.36	276.33	12.07
2011	2 449.21	330.67	13.50
2012	2 656.01	347.64	13.09
2013	2 894.60	398.06	13.75
2014	3 077.61	445.74	14.48
2015	3 159.13	474.19	15.01
2016	3 242.94	328.62	10.13
2017	3 497.58	316.62	9.05

Source: Authors' own material on the basis of the data in the Rb-27s report.

come growth if those competences did not exist or if municipalities did not make use of them. It also reflects the activity of local authorities in the pursuit of tax policy. In the municipalities in question, these indicators are high, averaging over the analysed period: 17.8% in urban-rural municipalities and 20.1% in rural municipalities, with a falling trend observed in the last two years. The data in Tables 2 and 3 indicate that the local tax policy is addressed mainly toward natural persons. The percentage scale of the use of tax authority tools in relation to different categories of taxpayers – the so-called average level of financial prejudice was:
– in urban-rural municipalities, 34% (natural persons) and 12.2% (legal persons);
– in rural municipalities, 40.8% (natural persons) and 12.2% (legal persons).

Subsequently, the authors observed the impact of the increase in the amounts resulting from the reduction in the upper property tax rates (variable d1UD, expressed in %) on the relative growth in income from property tax; naturally, taking into account inflation (variable d1D, expressed in %) and this variable growth (d2D variable, expressed in %). These variables were considered in the subsequent years R and R + 1 – we were mainly interested in variables d1UD, d2D. We considered the impact of variable $d1UD_r$ exerted on $d2D_{R+1}$ as well as the impact $d1UD_R$ on $d1D_R$ and the variable $d1D_{R+1}$. A negative correlation of $d1UD_R$ and $d1D_R$ is natural, as it should be expected that increased tax preferences will trigger a reduction in the revenue growth in the same year. However, there is also a positive correlation of $d1UD_R$ with $d2D_{r+1}$ and, slightly weaker, with

Table 3. Effects of the reduction in property tax rates in relation to natural persons in the period of 2007–2017

Year	Incomes from property tax (million PLN)	Lost incomes due to reduced rates (million PLN)	Lost income/income from property tax (%)
	Urban-rural municipalities		
2007	661.73	258.32	39.04
2008	726.56	255.22	35.13
2009	789.54	275.06	34.84
2010	847.59	309.28	36.49
2011	920.20	339.40	36.88
2012	1 008.57	336.70	33.35
2013	1 090.93	374.58	34.34
2014	1 146.50	374.63	32.68
2015	1 202.39	397.86	33.09
2016	1 267.10	376.97	29.75
2017	1 333.30	373.10	27.98
	Rural municipalities		
2007	657.86	301.88	45.89
2008	727.58	304.61	41.87
2009	793.69	335.81	42.31
2010	859.35	373.41	43.45
2011	937.02	410.30	43.79
2012	1 045.08	421.30	40.31
2013	1 148.03	462.82	40.31
2014	1 206.41	481.99	39.95
2015	1 265.24	506.84	40.06
2016	1 349.28	493.09	36.54
2017	1 400.69	486.25	34.72

Source: Authors' own material on the basis of the data in the Rb-27s report.

$d1D_{r+1}$, and thus the increase in the amounts due to the reduction in the upper income tax rates positively affects the tendency of property tax collection in the next year. It is illustrated by correlation in Tables 4 and 5. The study included 12 variables:

- $d1D_{R+1}$ – tax income growth in year $R + 1$, compared to year R;
- $d2D_{R+1}$ – growth of variable $d1D_{R+1}$ in relation to variable $d1D_R$;
- $d1D_R$ – tax income growth in year R, compared to year $R - 1$;
- $D31w3x_R$ – share of income from property taxes in all wealth taxes, in year R;
- $D31w756_R$ – share of income from property tax in the whole section 756, in year R;
- $U31w3x_R$ – share of tax rate reductions in the property tax in all reductions in wealth taxes, in year R;
- $U31w756_R$ – share of reductions in tax rates in property taxes for all reductions in section 756, in year R;
- $d1U_R$ – growth in tax reductions, in year R, compared to year $R - 1$;
- UD_R – share of tax reductions in tax collection, year R;
- $d1UD_R$ – variable UD_R growth compared to $R - 1$;
- $d1D31w756_R$ – variable $D31w756_r$ growth compared to $R - 1$;
- $d1U31w756_R$ – variable $U31w756_r$ growth compared to $R - 1$.

Variables 1 and 2 act as dependent variables, as we want to explain what in year R can influence tax income growth in year $R + 1$. While variables 3–12 act as explanatory variables, they are intended to explain negative or positive responses in tax collection

in future years, depending on the value of these variables in year R.

The aforementioned variables were placed in a cross-sectional time series (voivodeships–years). The data were aggregated in each voivodship and were considered for the selected variables in years 2008–2016, as the calculation of variable values required reference to the values of the variables shifted back by a year (coefficients) and the consideration of variables shifted in time by one year forward. In total, this gave $16 \cdot 9 = 144$ data in the variables considered for rural municipalities and urban-rural municipalities. In the correlation tables, some relevant correlations, described further in the text, are highlighted in grey.

We test the significance of correlation (Pearson's and Spearman's) with a classic test

$$U = \frac{R}{\sqrt{1 - R^2}} \sqrt{n - 2}$$

which has the Student's t-distribution of $n - 2$ degrees of freedom. The significant border correlations r^* (for $n = 144$) are shown in the following statement (in brackets, r^* is given for the single-sided test when the correlation character is known) for a different significance of the test (α):

- $\alpha = 0.10$, $r^* = 0.1376$ ($r^* = 0.1074$);
- $\alpha = 0.05$, $r^* = 0.1637$ ($r^* = 0.1376$);
- $\alpha = 0.01$, $r^* = 0.2140$ ($r^* = 0.1937$);
- $\alpha = 0.001$, $r^* = 0.2714$ ($r^* = 0.2555$).

The most important thing in the explanation of the effect of tax policy is the correlation in the first two lines (columns) of Tables 1–3, because primarily we are interested in the effect of variables in the defined year R on income growth in the year following (R + 1). Aforementioned tables show a significant positive correlation of d1UD in year R with d2D in year R + 1 – this is exactly an indirect indication of the "working" tax policy. And, the negative correlations of d1D in year R with d2D in year R + 1 and d1D31w756 in year R with d2D in year R show "self-limitation" of income growth. If the income in a certain year rises (d1D > 0) or the share of income from property tax in a certain year increases (d1D31w756 > 0), then the

income growth tendency (d2D) in year R + 1 will deteriorate – hence the term "self-limitation".

In order to qualitatively examine the dependence: "higher reductions in a particular year imply an increased inclination towards a positive tendency in tax collection in the following year", variables d1UD and d2D were processed into dichotomic variables D and U. If d1UD > 0 (the share of reductions in implemented incomes grows), then we assume U = 1, and otherwise we assume U = 0. Identically for variable d2D – if d2D > 0 (positive tendency to tax collection growth), we assume D = 1, and otherwise we assume D = 0. We consider variables U and D in each year in which we knew d1UD and d2D. Then the question about the effectiveness of tax policy on property tax turns into a question about the influence of a variable pair of U_{R-1} and U_R on a pair of variables D_r and D_{R+1}. To simplify, these pairs are denoted dU_R and dD_R, and take four possible values: 0 (00), 1 (01), 2 (10), 3 (11). These data are included in Tables 6 and 7. We analyse them with Pearson's independence test to determine whether we can see the dependence dU_R and $dD_{R \text{ or}}$, i.e. whether the behaviour of variable d2D in years R and R + 1 depends on the behaviour of variables d1UD in years R – 1 and R; and so, whether there is a real impact of the tax policy on the application of tax rate reductions.

Spearman's correlation test will show the direction of this dependence, as Pearson's independence test shows the dependence, but does not show any other details of that dependence, apart from measuring the strength of the dependence itself. In the descriptions of the contingency tables: χ means Pearson's independence test value – this test has a χ^2 distribution of 9 degrees of freedom with the table size of 4×4. The likelihood of an incorrect rejection of the hypothesis of independence is denoted by $p\chi$. And t is the value of Spearman's correlation test (with 128 data, this test has a Student's t-distribution of 126 degrees of freedom), and pt is probability of an incorrect rejection of the null hypothesis on no correlation. In general, a small probability p-value (e.g. $p < 0.05$ assumed as standard) indicates a significant variable dependence (in the case of independence test) and an important correlation of variables (in the case of Spearman's correlation test). In addition, in Tables 6 and 7, the higher the test value, the more it would indicate a greater data dependence or a "more"

Table 4. Correlations – rural municipalities, natural persons

	d1D	d2D	d1D	D31w3x	D31w756	U31w3x	U31w756	d1U	UD	d1UD	d1D31w756	d1U31w756
d1D	1.0000	0.7572	0.0483	-0.2401	-0.2157	-0.2382	-0.2056	0.2047	0.2908	0.1077	-0.0252	-0.3620
d2D	0.7572	1.0000	-0.6158	-0.0007	-0.0051	0.0503	0.0005	0.0778	0.0778	0.3238	-0.1317	-0.1674
d1D	0.0483	-0.6158	1.0000	-0.2885	-0.2525	-0.3644	-0.2487	0.1280	0.2318	-0.3653	0.1711	-0.1805
D31w3x	-0.2401	-0.0007	-0.2885	1.0000	0.7135	0.7704	0.6976	-0.1933	-0.5257	0.0296	-0.0311	0.0929
D31w756	-0.2157	-0.0051	-0.2525	0.7135	1.0000	0.6312	0.5717	-0.2006	-0.5711	-0.0099	0.0017	0.0679
U31w3x	-0.2382	0.0503	-0.3644	0.7704	0.6312	1.0000	0.8805	-0.0143	-0.2528	0.2058	0.0690	0.4059
U31w756	-0.2056	0.0005	-0.2487	0.6976	0.5717	0.8805	1.0000	0.0441	-0.0871	0.1830	0.1144	0.3848
d1U	0.2047	0.0778	0.1280	-0.1933	-0.2006	-0.0143	0.0441	1.0000	0.4732	0.7992	0.2826	0.3696
UD	0.2908	0.0778	0.2318	-0.5257	-0.5711	-0.2528	-0.0871	0.4732	1.0000	0.1760	0.1256	-0.0028
d1UD	0.1077	0.3238	-0.3653	0.0296	-0.0099	0.2058	0.1830	0.7992	0.1760	1.0000	0.1827	0.5047
d1D31w756	-0.0252	-0.1317	0.1711	-0.0311	0.0017	0.0690	0.1144	0.2826	0.1256	0.1827	1.0000	0.2607
d1U31w756	-0.3620	-0.1674	-0.1805	0.0929	0.0679	0.4059	0.3848	0.3696	-0.0028	0.5047	0.2607	1.0000

Source: Authors' own material on the basis of the data the in Rb-27's report.

Table 5. Correlations – urban-rural municipalities, natural persons

	d1D	d2D	d1D	D31w3x	D31w756	U31w3x	U31w756	d1U	UD	d1UD	d1D31w756	d1U31w756
d1D	1.0000	0.7383	-0.0482	-0.1897	-0.0459	-0.1882	-0.1575	0.0617	0.1648	0.0594	-0.1593	-0.2475
d2D	0.7383	1.0000	-0.7092	-0.0696	-0.0640	-0.0400	-0.0492	-0.0962	0.0522	0.1327	-0.3591	-0.2244
d1D	-0.0482	-0.7092	1.0000	-0.0952	0.0469	-0.1375	-0.0918	0.2069	0.0949	-0.1344	0.3653	0.0736
D31w3x	-0.1897	-0.0696	-0.0952	1.0000	0.2076	0.6781	0.4935	-0.0428	-0.4479	0.0370	0.0276	0.1428
D31w756	-0.0459	-0.0640	0.0469	0.2076	1.0000	0.4464	0.3739	0.0738	-0.1740	0.0463	0.0954	0.1302
U31w3x	-0.1882	-0.0400	-0.1375	0.6781	0.4464	1.0000	0.6419	0.1737	-0.1803	0.2467	0.0478	0.4086
U31w756	-0.1575	-0.0492	-0.0918	0.4935	0.3739	0.6419	1.0000	0.1520	0.0444	0.1998	0.0643	0.4051
d1U	0.0617	-0.0962	0.2069	-0.0428	0.0738	0.1737	0.1520	1.0000	0.3627	0.9063	0.2158	0.3446
UD	0.1648	0.0522	0.0949	-0.4479	-0.1740	-0.1803	0.0444	0.3627	1.0000	0.2309	0.0154	-0.0191
d1UD	0.0594	0.1327	-0.1344	0.0370	0.0463	0.2467	0.1998	0.9063	0.2309	1.0000	0.1058	0.3810
d1D31w756	-0.1593	-0.3591	0.3653	0.0276	0.0954	0.0478	0.0643	0.2158	0.0154	0.1058	1.0000	0.2067
d1U31w756	-0.2475	-0.2244	0.0736	0.1428	0.1302	0.4086	0.4051	0.3446	-0.0191	0.3810	0.2067	1.0000

Source: Authors' own material on the basis of the data in the Rb-27's report.

non-null ("more" significant) correlation (Spearman's) between the analysed data. Pearson's independence test and Spearman's correlation test are formally distinct but refer to the same issue – the "dependence" of enumerated variables, dD and dU, considered in these tables.

For rural municipalities (Table 6) the visible dependence of dD on dU is very significant – the indication of both Pearson's independence test and Spearman's correlation test is identical. Additional information is a positive Spearman's correlation sign, indicating the dependence: "larger dU occur together with larger dD" – so, higher tax rate reductions positively affect the tax collection tendency in the next year, and that is what the tax policy is about, if it is supposed to make any sense. A similar, albeit weaker, dependence exists in the case urban-rural municipalities (Table 7). A tendency, which is uniform and conspicuous, is the one of "self-limitation" of the income growth of municipalities from property tax; variable d1D in a particular year, strongly negatively correlates with variable d2D in the following year. If there is a strong income growth in a year, the tendency towards a further growth is on the decline in the following year, and if revenues fall, a possibility of increasing revenue growth seems to "open" in the next year. This "self-limitation" is a negative feedback stopping the income cascade growth. A similar conclusion can be drawn from the negative correlation of d1D31w756 in a particular year with the variable d2D in the following year – if the share of tax revenues throughout the section 756 rises, then in the next year the income upward tendency is reduced.

Table 6. Pearson's independence test and Spearman's correlation test – all the voivodships, rural municipalities, natural persons ($\chi = 35.989$, $p\chi = 0.00004$, $\rho = 0.2334$, $t = 2.6945$, $pt = 0.0080$)

dD-dU	0	1	2	3
0	13	10	4	2
1	9	16	4	8
2	18	4	17	2
3	3	3	8	7

Source: Authors' own material on the basis of the data in the Rb-27s report.

Table 7. Pearson's independence test and Spearman's correlation test – all the voivodships, urban-rural municipalities, natural persons ($\chi = 21.598$, $p\chi = 0.0102$, $\rho = 0.1428$, $t = 1.6193$, $pt = 0.1079$)

dD-dU	0	1	2	3
0	16	14	8	5
1	13	10	5	8
2	10	6	17	1
3	4	3	3	5

Source: Authors' own material on the basis of the data in the Rb-27s report.

SUMMARY

Property tax is a very important category of municipality income sources, i.e. incomes that determine the financial autonomy of the municipality self-government. As shown in the article, the tax policy of rural and urban-rural municipalities is mainly implemented by lowering the upper tax rates. It undoubtedly affects the volume of incomes of municipalities. However, the effects in various periods were different. In the period in which the tax rates were reduced, tax revenues usually declined. And, in a later period, an upward tendency was observed in the created correlation tables. For rural municipalities, in the case of policies implemented towards natural persons, such a dependence (efficiency) is clear: and existent in the case of rural and urban-rural municipalities, but weaker. The analysed municipalities (rural and urban-rural), when lowering tax rates, conducted an active tax policy, intending to stimulate the development of the local economy. Tax policy is to a certain extent dependent on the taxpayer's category. Municipalities implemented a more active tax policy towards natural persons. This may have been due to the fact that the property tax incomes from legal persons are much higher than those from natural persons. But an external parameter must not be omitted, it is independent of municipalities, i.e. a large variation in tax rates between housing and commercial property, which the legislator has adopted, to the disadvantage of commercial properties. Let us add that the incomes from natural persons do not relate

only to residential immovable property but also to commercial property. And this is where small companies run by natural persons would be tax policy beneficiaries. However, the order of magnitude cannot be precisely determined, since the reports on the implementation of the municipality budgets do not give a possibility of obtaining accurate information on the amount of income from particular types of property.

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POLITYKA PODATKOWA GMIN WIEJSKICH I MIEJSKO-WIEJSKICH W ZAKRESIE PODATKU OD NIERUCHOMOŚCI

STRESZCZENIE

W artykule zaprezentowano badanie lokalnej polityki podatkowej gmin wiejskich i miejsko-wiejskich w zakresie podatku od nieruchomości. Wykorzystano różne metody badania współzależności danych statystyki matematycznej (test korelacji Pearsona, test korelacji Spearmana oraz test niezależności Pearsona). Badanie wykazało, że polityka podatkowa badanych gmin była zróżnicowana i mogła w określonych warunkach dać efekt pozytywny w postaci tendencji wzrostowej dla dochodów wykonanych w podatku od nieruchomości – co należy postrzegać jako oryginalny wkład pracy autorów artykułu.

Słowa kluczowe: polityka podatkowa, podatek od nieruchomości, obniżanie stawek podatkowych, gminy wiejskie, gminy miejsko-wiejskie