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## **OWN REVENUE POTENTIAL AND THE TAX POLICY OF COMMUNES ON THE EXAMPLE OF COMMUNES OF THE MAŁOPOLSKIE PROVINCE**

Key words: commune revenue, fiscal federalism, local finance, local government, communal services

**ABSTRACT.** The aim of the article was to indicate the importance of the category of own revenue potential and diagnose its level and changes in various economic conditions. The importance of revenue from property tax in shaping the revenue potential of communes was also assessed. The subject of the study were basic categories of commune revenue. The estimation of the average level of analysed features, their differentiation and changes in the analysed period was made with the use of descriptive statistical methods, such as location, variability and dynamic measurements. In the analyses measures of central tendency such as: arithmetic mean, median, standard deviation, quartiles and the correlation coefficient were used. Own revenue potential constitutes a stable source of revenue for commune budgets and is most resistant to economic changes. Property tax revenue plays an important, albeit decreasing role in own revenue potential. Research has shown that together with an increase of fiscalism in the scope of this tax, the value of stable sources of income of communes also increases, which boosts financial independence. At the same time, communes with a high level of per capita income potential applied a higher level of property taxation, especially on buildings related to business activities.

### **INTRODUCTION**

Each state provides its citizens with a specific, albeit diverse, set of public services, which is conditioned by past practices and social consensus. The division of these tasks between central and local governments is related to the decentralisation process and the economic necessity of their implementation by level of government, which does it most effectively from the point of view of costs incurred and meeting the needs of the local community [Jastrzębska 2012].

The essence of decentralization lies in equipping subordinate bodies with a specific sphere of autonomy. Local government may be referred to only when the independence of local government bodies from government bodies is maintained to a certain extent, and when local government bodies are free to determine the hierarchy and scope of their own tasks and expenses related to their implementation, while this freedom depends on the financial capabilities of a given local governmental unit.

For the efficient fulfilment of public tasks, it is necessary to have stable sources of revenue [Norregaard 2013]. It is also important to have an influence on the shaping of revenue, and thus a certain level of autonomy. Using available instruments in the field of local taxes and determining the standard of public services, communes shape living conditions competing for residents and the location of business entities [cf. Gorynia, Trąpczyński 2014] in accordance with the concept of local tax policy.

The aim of the article was to indicate the importance of the category of own revenue potential and diagnose its level and changes in various economic conditions. Moreover, the significance of revenue from real estate tax in shaping the income potential of communes was assessed.

## MATERIAL AND RESEARCH METHODS

Empirical material including rates of real estate tax came from own research conducted in the communes of the Małopolskie Province. Data were obtained from three categories: land related to business activities, residential buildings and buildings related to business activities. Data on the amount of income from particular tax categories was obtained from the Local Data Bank of the Central Statistical Office (GUS).

The scope of the study comprised 182 communes of the Małopolska Province, including 122 rural communes, 46 urban-rural communes, 11 urban communes and 3 towns with a district status. The time range is a period of 13 years (2005-2017), which made it possible to show changes throughout the entire period after Poland's accession to the EU and see the changes in municipal revenue depending on economic growth rate. Own revenue potential was determined by summing up, in a spreadsheet, the tax revenue creating it. Real values of revenue were determined on the basis of nominal values adjusted for inflation indices [GUS 2019].

Analysis of differences between communes was based on the real level of the value of own revenue potential and other categories of commune revenue per capita. The classification of the surveyed units was also made on the basis of the share of revenue from real estate tax in own revenue potential. For all analysed features, the estimation of the average level, their differentiation and changes, in the period under analysis, was made with the use of descriptive statistical methods, such as measurements of location and dynamics. In the conducted analyses measures of central tendency, such as: arithmetic mean, median, standard deviation and quartiles, were used. A correlation was also made between the values of own income potential per capita and the amount of property tax rates.

## THE IMPORTANCE OF OWN REVENUE POTENTIAL IN THE FINANCES OF COMMUNES

The problems of commune self-government finances are considered in various aspects and approaches are varied. All decisions made by local governments are reflected in the budget, and one of the most important factors allowing their creation, within the scope of current and investment activities, is obtained revenue [Filipiak 2016]. Many economic

studies concerning the revenue of local government units apply the division into three basic categories: own revenue, subventions and subsidies. A prevailing opinion among economists is that own revenue is crucial for financial independence [cf. Zawora 2008, Swianiewicz 2011, Przygodzka 2014, Surówka 2014].

The category of own revenue consists of many sources of revenue for local government units, some of which are stable and repeatable in subsequent periods. There is also revenue which, in most communes, does not constitute a stable source of supply for local budgets, e.g. revenue from municipal property components, among others.

For the proper functioning of communes and the fulfilment of public tasks, which must be performed regardless of the financial situation (cf. Satola 2012), what is most important is the stability of obtained revenue. In this context, the most stable part of a commune's own revenue is own revenue potential. It is treated as a sum of revenues from shares in personal income tax (PIT) and corporate income tax (CIT), real estate tax, taxes on means of transport, taxes on civil law as well as agricultural and forestry activities [Lubińska et al. 2007, p. 77]. In this aspect, it is worth noting that agricultural and forestry taxes are of particular fiscal importance in rural communes. From an economic point of view, the category of own revenue potential has yet another meaning in the identification of the social and economic situation of local government units. Through the prism of tax revenue, it is possible to indirectly deduce the revenue potential of the population living in a given area.

The category of own revenue potential used in comparative analysis has several advantages in comparison to the assessment of the share of own revenue in total revenue [cf. Lubińska et al. 2007]. Firstly, it only contains the basic sources of tax revenue, ensuring clarity and transparency. Secondly, it only takes into account stable, repeatable sources of revenue, while own revenue also includes property revenue, which is often of a temporary nature depending on the ownership transformation of municipal property. Moreover, the development of own revenue potential is not affected by solutions adopted in individual communes for the organization of public tasks, which facilitates comparative analyses. The category of own revenue is „burdened” by the applied method of solutions for the fulfilment of own tasks, where part of the activity is carried out in the form of separate budget plants, while in others it may constitute an element of the budget (mainly solutions for selected industries of communal economy) [cf. Głowicka-Wołoszyn et al. 2018].

## RESEARCH RESULTS

In the 13-year research period, macroeconomic conditions changed, which have an impact on the financial situation of the state and local government. The dynamics of GDP is one of the most important determinants of income that can be obtained by local governments.

Between 2005 and 2017, economic activity, as measured by the GDP growth rate, was strongly differentiated, reaching its peak in 2007 (7%), while the biggest slowdown occurred in 2013 (1.4%). Against this background, the variability of analysed commune revenue in real terms can be observed. Although there was an increase in each revenue group, its course was not uniform. The greatest correlation with the dynamics of national revenue was observed in total revenue, which grew dynamically in the period of prosper-

Table 1. Average values of total revenue, own and own revenue potential of communes of the Małopolskie Province in comparison with GDP dynamics in the years 2005-2017

Specification	Average values [PLN per capita]												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Own revenue potential	528.4	572.2	660.6	728.6	670.1	660.5	698.5	733.4	774.7	822.5	893.3	976.5	1,029.8
Own revenue	724.8	777.0	946.0	1,015.2	981.7	1,000.5	1,081.8	1,077.8	1,149.4	1,241.3	1,349.5	1,357.1	1,409.8
Total revenue	2,238.6	2,509.6	2,735.2	2,807.0	2,882.7	3,177.8	3,203.8	3,120.7	3,077.9	3,222.1	3,413.9	3,967.5	4,224.8
GDP dynamics [%]	103.6	106.2	107.0	104.2	102.8	103.6	105.0	101.6	101.4	103.3	103.8	103.1	104.9

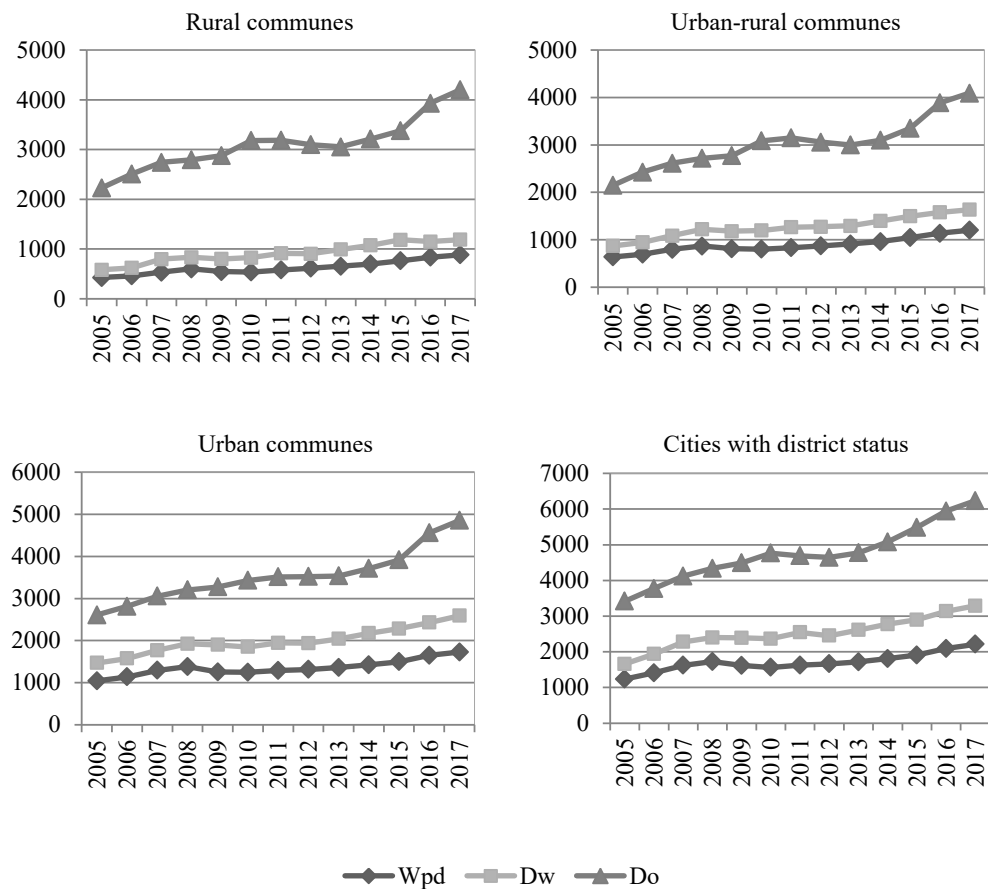
Source: own calculations based on Local Data Bank data [Statistics of Poland 2019]

ity, while, during economic downturn, its growth slowed down significantly, and, in the years 2011-2013, even a slight decrease was observed.

Own revenue, which grew slightly more slowly than total revenue in the period of rapid economic growth, reacted to the economic situation to a lesser extent, while a significant decline in GDP dynamics was not as severe for it as the one felt in the whole local budget (cf. Satola et al. 2019). By far, the highest long-term stability was observed in the case of own revenue potential. It did not undergo such significant changes as could have been suspected by observing very large changes in the macro-economic situation. This revenue category showed steady growth over almost the entire research period (with the exception of 2008-2010, when there was a slight decrease), which confirms the validity of treating this revenue group as the most stable source of financing for public tasks.

In order to broaden the analysis of the development of individual revenue, a division of the studied community was made, taking into account the types of communes. The analyses carried out in this way made it possible to confirm a large diversity between communes in terms of sources of revenue. Although the general revenue of rural and urban-rural communes showed little variation, large differences are visible in the scope of own revenue and own revenue potential. Rural units obtained significantly lower values of their own revenue potential in comparison to all other types of communes. In the whole period of analysis, urban communes had, on average, twice as high a value of own revenue potential compared to rural units (Figure 1).

The analysis conducted with the use of division by types of communes also confirms that revenue creating own revenue



Wpd – own revenue potential, Dw – own revenue, Do – total revenue

Figure 1. Average values per capita of real revenue: total, own and own revenue potential and changes in the analysed types of communes in the Małopolskie Province in the years 2005-2017

Source: own calculations based on Local Data Bank data [Statistics of Poland 2019]

potential constitutes the most stable group of sources of supply for local budgets. In the periods of economic slowdown, revenue from this category only slightly decreased, with relatively larger changes in total revenue and own revenue, which is particularly well visible in the group of rural and urban-rural communes. These two groups were also the most affected by the next economic slowdown, as confirmed by the declining trend of general revenue in 2011-2014, which was caused by a reduction in the amounts of external transfers (subsidies and subventions provided from the state budget) as a result of reduced revenue of the central budget and the need to seek savings in public expenditure in order not to lead to an excessive increase in the budget deficit.

Table 2. Average share of real estate tax revenue in own revenue potential of communes of the Małopolskie Province

Specification	Average share of real estate tax revenue [%]												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Rural	35.0	33.0	29.0	25.8	28.4	29.1	27.3	27.3	27.7	27.8	27.4	26.4	25.8
Urban-rural	38.7	36.6	33.0	30.7	33.9	34.4	33.3	34.0	33.6	33.6	33.0	32.4	31.4
Urban	43.7	41.7	35.9	35.6	38.8	39.8	38.5	39.3	40.1	40.2	39.4	38.6	37.5
Cities with a district status	44.0	42.0	36.1	36.9	40.7	42.0	40.8	42.8	40.0	41.9	41.5	41.5	39.4
Average	36.6	34.6	30.6	27.8	30.6	31.2	29.7	29.9	30.2	30.2	29.7	28.9	28.1

Source: own calculations based on Local Data Bank data [Statistics of Poland, BDL]

Tax revenue constituting own revenue, and especially revenue forming the category of own revenue potential, formed the basis for financing the tasks of local government units, which are continuous and must be fulfilled regardless of the current financial situation [cf. Kożuch 2013]. Such tasks mainly include public services provided within the framework of communal management. Therefore, the activities of communes should be aimed at increasing the efficiency of these sources of revenue through an appropriate tax policy with respect to those public levies, in which they relatively have the largest scope of tax authority. Having broad financial autonomy by local government units is one of the key assumptions of the concept of fiscal federalism [Oates 1999, Dziemianowicz, Poniatowicz 2016, Wieliczko 2018]. The competence of communes with regard to individual taxes constituting their own revenue is differentiated and the smallest with regard to shares in personal and corporate income tax, which, according to some authors, raises doubts as to whether they should be included in this group [Swianiewicz et al. 2013, Poniatowicz, Wyszowska 2014]. Definitely, the largest scope of tax authority is held by communes in the field of property tax. They can set the rates of these taxes, introduce various exemptions and reliefs, and differentiate the categories of properties to which they are applied [Poniatowicz, Wyszowska 2014].

The significance of real estate tax revenue in a commune's own revenue potential decreased on average by 8.5 percentage points. However, this decrease was not evenly distributed and, in principle, it took place fully in the first 3 years of analysis (2005-2008), after which it stabilized (Table 2). Revenue from real estate tax is the largest source of revenue for large cities, while together with a decrease of communes, its share in own revenue potential decreases, reaching an average of 25.8% in rural areas. It is worth noting, however, that,

Table 3. Average values of own revenue potential per capita in quartile groups of communes distinguished due to the amount of property tax

Specification	Average values of own revenue potential per capita [PLN]												
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1st quartile group	338	363	422	480	434	425	464	491	523	555	605	661	705
2nd quartile group	470	498	559	629	578	575	607	644	676	714	767	833	877
3rd quartile group	583	636	752	828	752	740	782	814	863	923	1,022	1,105	1,180
4th quartile group	715	783	902	975	917	903	941	985	1,041	1,098	1,184	1,305	1,358

Source: own calculations based on Local Data Bank data [Statistics of Poland. BDL]

in this group, it is most strongly differentiated (from 12 to 68%), which determines a high value of the coefficient of variation (0.394). The reason for this high volatility is the fact that communes apply very diverse property taxation strategies within the limits of the law [cf. Parchet 2019, Cassette et al. 2012]. Communes shaping the level of property taxation implement part of the instrumentation of the concept of fiscal federalism [Oates 2005]. Shaping own income potential, municipalities take advantage of the opportunities offered by tax policy under decentralization.

The classification made on the basis of real estate tax rates for buildings connected with conducting business activity made it possible to separate 4 quartile groups of communes. Calculated intra-group average values of own revenue potential per capita confirm the relationship between this category and level of taxation. In communes that apply low property tax rates, the level of own revenue potential is also the lowest (Table 3). With an increase in the level of fiscalism, the affluence of communes measured by revenue potential also increased significantly.

The existence of dependencies between the level of property tax rates and a commune's own revenue potential is also confirmed by the analysis of correlation coefficients. The tax rates set by the communes for three basic categories of real estate were analyzed in detail: land related to business activity, residential buildings and buildings related to business activity. The highest values of correlation coefficients were obtained between variables describing own revenue potential per capita and the amount of tax on buildings related to business activity ( $r_{xy}$  in the range of 0.541-0.581). Correlation coefficients, with respect to the tax on residential buildings, were at a lower level ( $r_{xy}$  in the range of 0.29-0.374). Such an observation shows that the revenue potential of local governments is much more dependent on the level of fiscalism in relation to properties used for commercial rather than residential purposes.



## CONCLUDING REMARKS

Own revenue potential is a very important measure of the financial standing of local government units. It is a credible illustration of the most stable sources of revenue, thanks to which it is possible to fulfil public tasks without interruption. The research carried out confirmed that the tax revenue generated by it is much more resistant to the impact of the economic situation than other sources of local government revenue. To a large extent, therefore, municipalities should base the implementation of municipal management tasks on it, which must be performed continuously and undisturbed, regardless of the macro-economic situation.

Property tax is of significant importance in creating its own revenue potential, and its role is greatest in large cities, while it is decreasing in rural communes. The research has shown that with the growth of fiscalism in the area of this tax, the value of stable sources of commune revenue also increases, which translates into an increase in financial independence and the ability to fulfil public utility tasks. In this way, a better local offer of public services justifies a higher level of taxation, which is in line with the principles of fiscal federalism.

Communes should increase their revenue potential as this allows them to be more independent and, in periods of slower GDP growth, this revenue category is more resilient and does not decrease to the same extent as external sources of financing (subsidies and subventions, which are highly dependent on the state budget situation). Relying more on own sources of revenue gives more financial autonomy to commune subsidizing bodies and allows them to carry out local economic policies independently.

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## WŁASNY POTENCJAŁ DOCHODOWY A POLITYKA PODATKOWA GMIN NA PRZYKŁADZIE GMIN WOJEWÓDZTWA MAŁOPOLSKIEGO

Słowa kluczowe: dochody gmin, federalizm fiskalny, finanse lokalne, samorząd terytorialny, usługi komunalne

### ABSTRAKT

Celem artykułu jest wskazanie znaczenia kategorii własnego potencjału dochodowego oraz diagnoza jego poziomu oraz zmian w zróżnicowanych warunkach ekonomicznych. Ocenie poddano także znaczenie wpływów z podatku od nieruchomości w kształtowaniu potencjału dochodowego gmin. Przedmiotem badań były podstawowe kategorie dochodów własnych gmin. Oszacowanie średniego poziomu analizowanych cech, ich zróżnicowania i zmian w badanym okresie dokonano za pomocą statystyki opisowej, tj. miary położenia i dynamiki. W analizach użyto takich miar tendencji centralnej, jak: średnia arytmetyczna, mediana, odchylenie standardowe, kwartyle, wykorzystano również współczynnik korelacji. Własny potencjał dochodowy stanowi stabilne źródło zasilania budżetów gmin i w największym stopniu jest odporny na zmiany koniunktury gospodarczej. Istotną, chociaż malejącą rolę we własnym potencjale dochodowym, odgrywają wpływy z podatku od nieruchomości. Badania wykazały, że wraz ze wzrostem fiskalizmu w zakresie tego podatku, rośnie również wartość stabilnych źródeł dochodów gmin, co zwiększa ich samodzielność finansową. Gminy cechujące się wysokim poziomem własnego potencjału dochodowego na osobę stosowały równocześnie wyższy poziom opodatkowania nieruchomości, szczególnie w zakresie budynków związanych z prowadzeniem działalności gospodarczej.

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