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## Metropolitan areas in Polan: Financial dimension

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## **METROPOLITAN AREAS IN POLAND – FINANCIAL DIMENSION**

### **Incomes of local governments in Poland**

The debate on metropolitan areas in Poland is influenced by the fact that each metropolitan area is in fact a collection of various autonomous units, which are independently financed and managed<sup>1</sup>.

The fundamental issue which is raised in this paper relates to the financial dimension of creation and functioning of metropolitan areas. It is commonly agreed that the process of metropolisation of space (i.e. the emergence of metropolitan cities surrounded by the so-called metropolitan areas) brings about a new quality of life for the inhabitants and raises the development potential of places. This results from an ongoing integration of smaller settlements with the central city. The current regulations on territorial division and financing local government entities in Poland create a significant challenge for large cities with regards to generating incomes adequate and sufficient for financing necessary investments which allow for integration of a metropolitan city with its surrounding metropolitan area.

Various questions may be raised: who benefits from the process of metropolisation? and who bears the burden of the costs related to this process? It seems that the burden of costs lies, to a great extent, on groups other than major beneficiaries of the process. A change in the system of financing metropolises towards one which would better reflect the ongoing processes, may thus be required. This paper attempts to highlight some of the related problems.

Graph 1. presents the structure of communes' incomes between 1991 and 1998, that is during a period of time when communes were the only level of local governments in existence. This and the following graphs present the structure of incomes by outlining four major income categories: targeted grants, general grants, own sources of income and the share in state taxes (in the Polish case these are PIT and CIT).

Graph 2. presents the structure of communes' incomes as of 1999, when the last administrative reform was implemented. The graph includes only data related to communes which are not at the same time urban districts (i.e. 65 largest cities in Poland). It seems that

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<sup>1</sup> See also: J. Danielewicz, T. Markowski, *Zarządzanie w obszarze metropolitalnym – podejście instytucjonalne*, in: T. Stryjakiewicz, T. Czyż (eds.), *O nowy kształt badań regionalnych w geografii i gospodarce przestrzennej*, Biuletyn KPZK PAN no. 237, Warsaw 2008, p. 91.

presenting data on these cities separately is justified, especially when analysing the system of financing of metropolitan areas which may be forming around the largest of these cities. Data on urban districts has been thus presented in Graph 3.

Graphs 4. and 5. present the structure of incomes in rural districts and regions respectively.

The current system of financing local governments in Poland differs greatly when it comes to communes on the one hand, and districts as well as regions on the other hand. The communes have enjoyed a number of relatively efficient sources of own incomes (i.e. taxes and fees) ever since being reinstated in 1990. Even though the share of own incomes in total incomes dropped over the years from 45% in 1991 to 31% in 2008, the communes still receive a far greater share of their incomes from own sources than both districts and regions do.

It is also clear that the reform of 1999 failed to provide the newly created tiers of local government (districts and regions) with efficient sources of incomes. Both districts and regions have been dependent on transfers from the state budget (be it in the form of targeted grants or general grants) for the first few years of their existence. A high share of targeted grants should be noticed in particular – it may even be questioned to what extent these entities are truly autonomous and self-governing.

Although the current trends are undoubtedly positive (the share of own incomes is gradually increasing in the structure of incomes of both districts as well as regions, while the share of targeted grants is diminishing), the districts and regions have not yet been provided with efficient income sources (they are not entitled to collect any local or regional taxes, for example). A new Local Governments' Incomes Act which is in force as of January 1<sup>st</sup> 2004 has significantly increased the shares in income taxes which local governments receive but – having said that – it needs to be reemphasised that these are not entirely own sources of incomes and, what is more, this change only altered the structure of regions' incomes significantly. Districts are still dependent on targeted and general grants which amount to two-thirds of their incomes. What is more, 2008 marks an end of some positive trends that were occurring in both districts and regions.

These observations seem to be important for the functioning of metropolitan areas in particular. There are different methods of delimitation of metropolitan areas, although it is typically so that a metropolitan area is composed of a central city and several adjacent districts. A situation whereby the communes have the most efficient of income sources, including several local taxes, means that a metropolitan area – which is typically composed of several districts and several dozen communes – does not have a uniform and effective system of financing its activities. It may be claimed that **the system of financing local governments**

**in Poland ignores the metropolitan areas which appear in the Polish space**, causing numerous negative implications for their functioning.

There are at least two problem areas that may be identified.

Firstly, the incomes generated by local governments (communes in particular) from the Personal Income Tax. Communes receive the highest share of PIT (39.34%) and may opt to compete for inhabitants. Suburban areas or rural areas which are located nearby cities and which are well accessible often offer a higher quality of life, convincing the inhabitants to move out of the city.

The ESPON research clearly defines processes of counter-urbanisation and ruralisation which occur in Europe and which result, respectively, in transferring all the activities of people to rural areas or moving to a rural area while retaining professional and social activities in the city<sup>2</sup>. The process of ruralisation seems key for the functioning of a metropolitan area as it *de facto* means that the city spills over into neighbouring rural areas and that the city's functional area becomes much larger.

Such a situation is not at all favourable for the metropolis as well as for the entire metropolitan area – the costs related to the creation and upkeep of technical and social infrastructure are concentrated within the metropolis, while the incomes from PIT as well as some other own sources of incomes are greatly dispersed over the entire metropolitan area and beyond it.

Secondly, the current regulations with regards to general grants also do not take into account the existence of metropolitan areas. It seems that the equalising part of the general grant is the most problematic – this part of the general grant system requires that communes and districts which generate *per capita* incomes from tax sources which significantly exceed the average *per capita* tax-based incomes transfer a part of their incomes to the state budget in order to finance payouts to those units which generate lower than average incomes.

It seems that such instruments which significantly restrict the incomes of metropolises should be avoided, especially since metropolitan areas are commonly accepted as engines of economic growth and sustainable development in Europe<sup>3</sup>. Based on the above a research hypothesis has been formulated: ***a mechanism for equalising the incomes of local governments which has been set up within the equalising part of general grants favours the communes which are located in the peripheries with regards to the metropolitan cities and their metropolitan areas.***

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<sup>2</sup> *Territory matters for competitiveness and cohesion*, ESPON synthesis report III, 2006, chapter 6: „Rural empowerment”.

<sup>3</sup> *Territory matters for competitiveness and cohesion*, ESPON synthesis report III, 2006, chapter 5: „Cities as drivers for development”.

A positive verification of such a hypothesis will clearly indicate that the system of equalising incomes of local governments needs to be changed in order to better support metropolitan areas. Such an approach seems necessary in order to support innovativeness and competitiveness of Polish space, features which may be improved most by supporting large cities (metropolises) and their functional (metropolitan) areas. This will undoubtedly require defining new criteria for allocating general grants.

### **1. The shaping of metropolitan areas – an analysis of tax-based incomes of communes**

Metropolises which are centres for various forms of social, economic and cultural activity are typically characterised by a greater than average level of development, at least in the economic dimension.

An analysis of development levels of cities and surrounding communes shows the great diversity of functional areas of the largest Polish cities which strive to become metropolises. Carrying out such an analysis is not an easy task – the most commonly used measure of development levels is *GDP per capita*. Despite numerous shortcomings, this measure is widely used for national as well as international analyses and comparisons.

Determining the level of development on a local level (i.e. in communes and districts) is obstructed by the fact that data on GDP is available only on higher levels of aggregation (for sub-regions and regions). Therefore, the analysis of development levels of individual communes and districts must relate to other measures of development (or wealth).

The most obvious solutions are:

- total incomes *per capita*;
- total own incomes *per capita*.

There are certain problems with defining precisely own incomes – especially the shares in personal and corporate income taxes which the communes and districts receive. According to legislation these incomes should be treated as own incomes, however a closer look at their features reveals that they should be treated more like *quasi* general grants. On the other hand the high availability of data and relatively high precision with which it allows to measure the level of economic development, mean that this approach is very attractive.

An alternative approach, which leads to similar results, entails using an index of *per capita* tax-based incomes. This index is used by the Ministry of Finance in order to determine relative wealth of individual local governments which is a necessary prerequisite for the policy of income equalisation between local governments. The issue of income equalisation is subject to analysis in the second part of this paper. Thus it seems that using the same set of

data also for the preliminary part of the analysis would allow for a coherent character of the whole paper.

The index of tax-based incomes for communes is calculated by adding the incomes from:

- Local taxes: property tax, rural tax, forest tax, tax on the means of transportation, tax on civil law contracts, lump-sum income tax;
- Fees: treasury fees and mineral royalties;
- Shares in personal income tax (PIT) and corporate income tax (CIT).

The analysis described below is based on the values of the aforementioned index calculated by the Ministry of Finance for communes for 2005, 2006, 2007, 2008 and 2009<sup>4</sup>. The index for every commune was put in relation to its average value calculated for all communes in Poland. The maps which are attached to the paper depict the level of *per capita* tax-based incomes in every commune relative to average *per capita* tax-based incomes.

### **1.1. Poland – a general analysis**

Even a quick glance at the data (i.e. attached maps or tables) leads to a conclusion that there are three major trends which occur in Poland: (1) there exists significant diversification between communes in terms of own incomes, (2) the communes which generate the above-average levels of own incomes are concentrated around some of the largest cities in Poland, (3) the level of income diversification is gradually increasing.

#### **1.1.1. Analysis of own income diversification on a national level**

In all of the analysed years a well defined development dichotomy of Poland is clearly visible. On the one hand there are some regions which are relatively well developed (wealthy): Śląskie, Dolnośląskie, Lubuskie, Wielkopolskie as well as Zachodniopomorskie (namely the western and south-western part of Poland). Several other regions located in northern and central Poland – namely: Pomorskie, Kujawsko-Pomorskie, Warmińsko-Mazurskie, Łódzkie, Mazowieckie, Małopolskie, Opolskie and Podlaskie – are clearly dominated by communes which have the *per capita* tax-based incomes on a level well below the average for Poland. However, the largest cities in these regions, together with their close neighbourhoods, clearly stand out of the background and manage to achieve high or indeed very high levels of tax-based incomes. This is particularly the case of Warsaw. The remaining regions (i.e. Podkarpackie, Lubelskie and Świętokrzyskie) are, in general, areas where all

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<sup>4</sup> The data was taken from „Biuletyn Informacji Publicznej” (“Public Information Bulletin”) published by the Ministry of Finance (<http://www.mf.gov.pl/index.php?const=6&dzial=1323&wysw=82&sub=sub10>), date of access to data: 15.02.2009.

communes, with very few notable exceptions, achieve either low or very low tax-based income levels.

### **1.1.2. Analysis of ‘development islands’ in Poland**

As far as research on the functioning of metropolitan areas is concerned, it seems important to identify those of Polish cities aspiring for a status of a metropolis which have strong and well-developing territorial units in their neighbourhood. A brief analysis of seven Polish regions is presented slightly further below. Before analysing them in more detail it seems worthwhile to look first at the whole of Poland. There are several conclusions which can be drawn from such an analysis.

Firstly, the most clearly defined areas characterised by the above-average levels of tax-based incomes (indicating a high level of economic development) may be observed around Warsaw, Poznań and Wrocław. The Silesian conurbation of cities is also clearly standing out of the background.

Some initial formations of a larger area characterised by high levels of tax-based incomes may also be seen around Łódź, Białystok, Szczecin (especially to the south of the city), Bydgoszcz and Toruń as well as Gdańsk, Gdynia and Sopot.

### **1.1.3. Divergence of wealth levels**

Despite a general belief that the EU regional policy and various supplementary activities undertaken at national levels diminish the disparities between territorial units in terms of development levels or wealth (incomes), there is a clear tendency to petrify or even increase the scale of existing disparities.

A number of communes which have tax-based incomes on a level much smaller than average increased significantly during the analysed period, while the share of communes attaining the highest level of tax-based incomes (in excess of 140% of average incomes) decreased. The indices of *per capita* tax-based incomes calculated by the Ministry of Finance for 2005 (the data for these calculations were *de facto* from 2003) showed that 81 communes (3.3% of all communes in Poland) achieved tax-based incomes in excess of 140% of average tax-based incomes, while as many as 1,039 communes (41.9%) achieved tax-based incomes not greater than 40% of the average. In comparison – the indices of *per capita* tax-based incomes calculated for 2009 show that 69 communes (2.8%) achieved tax-based income in excess of 140% of the average, while 1,178 communes (47.5%) achieved tax-based income not greater than 40% of the average.

In other words – according to the data for 2005 280 communes (11.3%) achieved tax-based income within 80% to 120% of the average tax-based incomes of Polish communes.

Four years later, in 2009, there were only 247 such communes (9.9%). This shows that the income levels of communes are gradually becoming more and more diversified.

### **1.2. Dolnośląskie region**

There are several interesting phenomena in the Dolnośląskie region. Firstly, Wrocław and some of the neighbouring communes are gradually gaining a dominant position in relation to the rest of the region.

Secondly, it seems that the communes in Bolesławiec district, Lubiń district and the city of Legnica are key for correct assessment of the region's condition. These communes managed to generate tax-based incomes well above the average throughout the entire analysed period.

Thirdly, this region is characterised by a clearly higher level of incomes than in the rest of the country – it seems necessary to emphasise that the share of communes achieving extremely low tax-based incomes is marginal. In 2009 there were only 23 communes (13.6% of all communes in the region), where the index of *per capita* tax-based incomes failed to exceed at least 40% of the national average. The data for the whole of Poland shows that there were 1,178 communes (47.5%) matching these criteria in that year. On the other hand, the shares of communes achieving incomes greater than average are twice higher in Dolnośląskie region than in Poland.

Fourthly, the analysed region – similarly to the whole of Poland – witnesses processes of divergence, although their exact nature was slightly different. The share of communes achieving extremely low tax-based incomes was growing, as it was in the rest of Poland (the share of communes where tax-based incomes failed to exceed 40% of the national average increased from 11.2% in 2005 to 13.6% in 2009, while the share of communes achieving tax-based incomes in the range from 40% to 60% of the national average increased from 35.5% in 2005 to 40.8% in 2009). Another similarity with the general trends occurring in Poland was a decrease of the share of communes which generated tax-based incomes in the range from 80% to 120% of the national average – there were 34 such communes in the region (20.1%) in 2005 and only 26 (15.4%) in 2009. The difference between the Dolnośląskie region and the rest of Poland was that the share of communes achieving tax-based incomes which are significantly higher than average did not diminish (there were 3 more communes achieving tax-based incomes in excess of 120% of the national average in 2009 than in 2005 – an increase of 1.8 percentage points).

### **1.3. Kujawsko-Pomorskie region**



When analysing the Kujawsko-Pomorskie region one's attention is drawn to a relative stability of the spatial distribution of the analysed variable (index of *per capita* tax-based incomes). The increase of tax-based incomes was most clear in the communes adjacent to Toruń, while the level of *per capita* tax-based incomes in the communes surrounding Inowrocław gradually decreased over the analysed period. However, three key urban centres may be identified in the region – Bydgoszcz, Toruń and Inowrocław. Having said that, it needs to be stated that none of these cities has a dominant position.

Secondly, unlike in the Dolnośląskie region, tax-based incomes of communes in the Kujawsko-Pomorskie region are slightly lower than the national average. Only 1 commune (0.7% of region's communes) achieved *per capita* tax-based incomes in excess of 140% of the national average (as compared to 2.8% of communes in Poland). On the other hand, the share of communes which have the lowest level of *per capita* tax-based incomes (not greater than 60% of the average) is much higher than in the Dolnośląskie region.

Thirdly, in terms of divergence of income (development) levels, the analysed region witnessed practically the same trends as the general trends outlined for the whole of Poland. The share of territorial units characterised by very low tax-based incomes (not greater than 40% of the national average) has been growing particularly quickly – from 38.9% in 2005 to 48.6% in 2009 (an increase of almost 10 percentage points).

#### **1.4. Łódzkie region**

This region is an example of a region where the level of tax-based incomes remains relatively stable throughout the analysed period. Significant changes may be observed only in the vicinity of Łódź – its functional (metropolitan) area became slightly stonger and wealthier in comparison to the rest of the region during the analysed period of time. Having said that, it may be emphasised that Łódź and its close surroundings are not the only area worthy of notice – several communes located along the line marked by Bełchatów, Piotrków Trybunalski and Tomaszów Mazowiecki – are also characterised by slightly higher than average income levels.

The level of *per capita* incomes in the Łódzkie region was slightly lower than the national average. Relatively speaking, there were many more communes which achieved tax-based incomes on a level below 40% of the national average than in the whole of Poland – in 2009 there were 103 such communes (58.2% of region's communes), while 27 more (15.3%) only achieved tax-based income in the range from 40% to 60% of the national average (data for Poland is – 47.5% and 23.7% respectively). It is clearly visible that the differences are substantial.

As far as the convergence / divergence of income levels in the analysed period is concerned, it may be stated that the structure of communes in that respect was relatively stable. The number of communes which achieved the lowest level of tax-based incomes (below 40% of the national average) increased from 92 (52.0%) to 103 (58.2%) over the five-year period of analysis, although this has been softened slightly by the fact that the number of communes achieving tax-based incomes ranging from 40% to 60% of the national average decreased from 42 (23.7%) in 2005 to 27 (15.3%) in 2009. What is more, the number of communes achieving tax-based incomes in the range from 80% to 120% of the national average increased from 16 (9.1%) to 19 (10.8%).

### **1.5. Małopolskie region**

This region is characterised by a significant dichotomy between the north-western part (including Kraków) and the rest of the region. A high level of tax-based incomes was generated by Kraków as well as the communes in Olkusz district, Chrzanów district, Oświęcim district and some communes in Wieliczka district and Myślenice district (mostly those adjacent to Kraków). The southern and eastern part of the region may be best described as the opposite extreme – it has a clearly uniform structure where the vast majority of communes, with only very few exceptions, achieve very low *per capita* tax-based incomes (below 40% of the national average).

There is no uniform area around Kraków which would be characterised by higher than average levels of tax-based incomes. The only notable grouping of well developed communes (i.e. those achieving higher than average levels of tax-based incomes) is located to the north-west of Kraków, neighbouring with Śląskie region. It may be suspected however, that the high income levels of these communes are down to the fact that they have numerous links with the cities of the Silesian conurbation, rather than with Kraków – the analysed variable is characterised by greater continuity in the directions of Silesian conurbation than in the direction of Kraków.

The Małopolskie region did not witness significant changes with regards to diversification of incomes on a communal level during the analysed period. It may be noted however that the distribution of the analysed variable is not proportional – for example, as many as 66.5% of communes in 2009 achieved tax-based incomes lesser than 40% of the national average (this was the highest share amongst all analysed regions, which in earlier years reached as high as 67.6%).

Should the data on Małopolskie region be put in relation to the data on the whole of Poland, it could be concluded that the communes in this region achieve incomes much smaller than the average. In accordance to what was stated earlier – 66.5% of communes achieved

tax-based incomes not greater than 40% of the national average (as compared to 47.5% in Poland), while further 13.7% of communes achieved tax-based incomes ranging from 40% to 60% of the national average (23.7% in Poland). The shares of communes in all other groups are smaller in Małopolskie region than in Poland. What is more, there was not even a single commune (including Kraków) which would achieve *per capita* tax-based incomes exceeding 140% of the national average. No such situation was recorded in any other of the analysed regions.

### **1.6. Pomorskie region**

This is an example of a region clearly dominated by one or two cities. In this particular case the region is dominated by the functional area of Trójmiasto (Gdańsk, Gdynia, Sopot) which achieved very high tax-based incomes throughout the analysed period, as well as by Słupsk and its surroundings. Communes in the remaining part of the region achieved, in general, tax-based incomes not exceeding the national average, the only exceptions being capital cities of districts.

Analysing the level of tax-based incomes in communes of the region in relation to the Polish average, it may be stated that they achieve incomes higher than average. Although 39 communes (31.7% of region's communes) only generated tax-based incomes below 40% of the average in 2009, the respective share for Poland was 47.5%. What is more, in all the ranges above average the shares of communes in the Pomorskie region were always higher than in Poland.

On the other hand, an analysis of trends occurring over time shows that the level of wealth of communes in Pomorskie region in relation to the national average is gradually diminishing. The shares of communes achieving higher than average incomes were gradually becoming lower over the analysed period – in the range above 140% of the national average the share dropped from 6.5% in 2005 to 4.1% in 2009, while the shares in the range from 120% to 140% and from 100% to 120% did not change over time. At the same time, there is a clearly visible increase of the share of communes achieving tax-based incomes not greater than 40% of the national average – from 22.0% in 2005 to 31.7% in 2009.

### **1.7. Śląskie region**

This region is clearly dominated by the Silesian conurbation, grouping over a dozen cities (including the regional capital – Katowice) all of which generate very high *per capita* tax-based incomes. Only the northern part of the region as well as its southern boundary are composed of communes which generate tax-based incomes below the national average. This situation means that it is extremely difficult to point out a single dominant city in the region,

although the Silesian conurbation is the second best pretender (apart from Warsaw) to a status of a “metropolis” due to concentration of significant economic potential and wealth.

Even a quick glance at the attached map for this region leads to a conclusion that the Śląskie region groups many communes achieving tax-based incomes which are above average. A closer analysis of statistical data confirms this observation. A significant difference between this region and average results for Poland may be seen especially in terms of communes which achieve the lowest level of tax-based incomes (not exceeding 40% of the national average) – in 2009 there were 35 such communes (21.0%) in the region, while the corresponding share for Poland was 47.5%. This result is second only to the Dolnośląskie region (in the group of seven analysed regions). On the other end of the scale the differences are equally significant – in every range of tax-based incomes exceeding the national average the results for the Śląskie region were far better than for the whole of Poland.

The analysed variable (i.e. the index of *per capita* tax-based incomes) was relatively stable in the region throughout the analysed period. The only notable observation in that respect may be that the level of tax-based incomes decreased slightly in relation to the average tax-based incomes of communes in Poland. However, this tendency did not alter the fact that Śląskie region remains one of the wealthiest regions in Poland.

In terms of inter-regional divergence of income levels, it may be stated that it decreased during the analysed period of time – the share of communes achieving tax-based incomes in the range from 80% to 120% of the national average increased from 22.8% in 2005 to 24.0% in 2009.

### **1.8. Wielkopolskie region**

The concentration of wealth within the functional area of Poznań is very clear. What is more, the communes surrounding Poznań gradually improved their positions during the analysed period. The only other area in the region which groups several communes achieving tax-based incomes which are significantly above the average is Konin and several communes surrounding it.

The distribution of the index of *per capita* tax-based incomes is similar in Wielkopolskie region and in Poland. The only notable difference, showing that the analysed region is in a better condition than the average for Poland, lies in the group of communes achieving tax-based incomes not exceeding 40% of the national average. There were 84 such communes (37.2%) in this region, while the share for Poland was 47.5%.

In terms of divergence of tax-based incomes and how they changed over time, it may be stated that Wielkopolskie region is much less diversified internally than the Polish average. On the other hand the scale of divergence is gradually growing – the share of communes

achieving tax-based incomes in the range from 80% to 120% of the national average decreased in the analysed period from 14.6% in 2005 to 11.9% in 2009, while the share of communes achieving incomes much smaller than the national average grew significantly.

### **1.9. The shaping of metropolises in Poland**

Despite the fact that the analysis presented above was based on a limited set of data, it may still be possible – based on the analysis – to define various financial models of functional areas of the largest Polish cities. If an assumption is made that the level of wealth (incomes) is in practice correlated with the level of (economic) development, then the following conclusions regarding Polish cities in the analysed regions can be made:

- **Wrocław** has a well developed and coherent functional (metropolitan) area; at the same time it is not the only centre in the Dolnośląskie region where wealth is concentrated;
- **Bydgoszcz** and **Toruń** do not have a coherent metropolitan area; it is indeed questionable if these two cities have any sort of a mutual functional area – if so, then it is linear and restricted only to linking the two cities;
- **Łódź** has a relatively coherent and well developed functional area, which is clearly identified against the rest of the region;
- **Kraków** has practically no metropolitan area of its own; many of the communes located to the north-west of Kraków fall more within the sphere of influence of the Silesian conurbation than Kraków;
- In the Pomerania the functional area of **Trójmiasto** is clearly defined, although there are relatively few communes apart from Gdańsk, Gdynia and Sopot within it; it also needs to be emphasised that **Słupsk** has quite a coherent and large functional area;
- **Silesian conurbation** is a grouping of several dozen cities and communes which together make up a large and coherent metropolitan area;
- **Poznań**, similarly to Łódź and Wrocław, has a large functional area which is clearly identified against the rest of the region.

### **2. The equalising part of the general grant and the functioning of metropolitan areas in Poland**

Every system of financing local governments requires various mechanisms for equalising too great disproportions in the levels of incomes achieved by individual local governments. Such a need arises from the fact that due to many geographical, demographical,

historical and climate-related conditions, some territorial units are capable of generating incomes much greater (or smaller) than other units. These differences may be partly attributed to good or bad practices in managing a given territorial unit, but to a large extent they result from factors which are clearly beyond the capacity of local governments to make any impact whatsoever.

On the other hand all local governments are required by law to provide their local societies with a certain scope of goods and services (i.e. in sufficient quantities and of good enough quality). The scope of tasks to be performed by the local governments differs from country to country (it is derived from the level of decentralisation in a given country). Regardless of the decentralisation level however, it may be stated that the greater the competences of local governments, the greater the financial resources which should be put at their disposal. Ideally, a significant part of local government incomes should be derived from own sources of incomes<sup>5</sup>, with regards to which a local government has at least a limited scope of decision-making authority. Such a solution greatly increases the financial autonomy of local governments<sup>6</sup>, but at the same time it also means that there appears a significant risk of large disproportions in the level of generated incomes between individual local governments.

In order to ensure that the local governments can perform their tasks well the central authorities should make certain that every local government has at least a minimum level of incomes which is necessary to finance all the key tasks sufficiently. In case of some (or sometimes all) local governments this may not be possible using only own incomes. That is why mechanisms for equalising the incomes achieved by local governments are necessary.

In Poland such a mechanism functions within the general grant system. The equalisation of incomes is achieved by two means:

- firstly, by raising the incomes of those local governments which achieve insufficient incomes (i.e. lower than average);
- secondly, by reducing the incomes of local governments which achieve relatively very high incomes from own sources (mostly these are tax-based incomes); these local governments are required to transfer a part of their tax-based incomes to the state budget; the fund which is thus created is then used to further raise the incomes of the less wealthy local governments,

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<sup>5</sup> The European Charter of Local Self-Government states in article 9. that at least a part of financial resources which remain at the disposal of local governments should be derived from sources such as local fees and taxes.

<sup>6</sup> More on financial autonomy of local governments can be found in: L. Oulasvirta, M. Turala, *Financial autonomy and consistency of central government policy towards local governments*, International Review of Administrative Sciences, Vol. 76, Sage Publications Ltd., 2009.

The equalising mechanism in Poland acts with different strength on the communal level on the one hand and on the level of districts and regions on the other hand. It is considerably weaker with regards to communes. In other words, the scale of possible differences in income levels may be far greater in the case of communes than in the case of districts and regions.

The existing equalising mechanism has provoked the author of this paper to formulate a research hypothesis which relates to the general grant system on a communal level. The hypothesis is: *“a mechanism for equalising incomes of local governments which has been set up within the general grant system favours communes which are located in the peripheries with regards to the metropolitan cities and their metropolitan areas”*.

Should this hypothesis be verified positively, this could suggest that the metropolitan areas do not receive adequate funding. The costs of creating and upkeeping the technical and social infrastructure are higher in the central city due to the need of linking it with its functional (metropolitan) area and servicing within the city many inhabitants of the metropolitan area who perform their professional and educational functions and look for entertainment, commercial activities and services in the metropolis. On the other hand the equalisation of incomes means that the metropolis will most likely receive less in the form of general grants, and what is more, it may even need to part with a portion of its income and transfer it to the state budget.

It is undoubtedly true that equalising income levels between local governments is a must. On the other hand however, it seems worthwhile to look at some of the conclusions of the ESPON reports, where cities – metropolises in particular – are considered to be development engines<sup>7</sup>. Thus reducing their funds in any way and transferring them to the peripherally located communes may be treated as only weakening their development potential, and in turn also the development potential of Poland and Europe.

This is a much wider and complex issue altogether – it most certainly may not be settled within the limited analysis presented in this paper. However, it seems adequate that two conflicting viewpoints which appear in this debate are explained here.

The overriding objective of regional policy is attaining territorial cohesion. There are no doubts with regards to that statement, but the agreements end already when attempting to define what territorial cohesion actually is... What is more, many conflicting opinions may be identified when it comes to deciding how this objective ought to be reached. One of the approaches (which may be described as *egalitarianistic*) claims that wealth should be distributed equally between regions in order to allow for balanced development in the entire area of regional policy's activity and for the catching up by the less developed areas. The other

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<sup>7</sup> *Territory matters for competitiveness and cohesion*, ESPON synthesis report III, 2006, chapter 5: „Cities as drivers for development”.

notable approach (which may be referred to as *individualistic*) emphasises the need to raise the competitiveness of regions. According to this approach financial resources should be concentrated where they may be used most effectively – i.e. in cities, in particular large cities, in other words where they may be transformed into development stimuli which may then be transferred into peripheral areas, allowing them to develop as a result.

Jerzy Hausner claims that an approach which assumes that a conflict exists between competitiveness and coherence is incorrect – both these aspects should be combined in regional policy (*“striving for coherence may be reconciled with competitiveness, unlike equalising development”*)<sup>8</sup>.

The hypothesis which was formulated earlier in this section is in line with what J. Hausner claims – it assumes the need of raising the competitiveness of regions, yet it also assumes that the resources should be directed primarily to the places which have the greatest absorption potential.

### **2.1. Verification of the hypothesis – methodology**

The hypothesis formulated in the previous section was verified on the basis of analysis which concentrated on data on the amounts of the equalising part of the general grant which were paid out to communes or which the communes had to transfer to the state budget in 2007, 2008 and 2009. All data was taken from the Public Information Bulletin published by the Ministry of Finance<sup>9</sup>.

The available data was used in order to prepare maps for Poland and separately for all seven regions which were also analysed in the first part of the paper. Maps were prepared for every year of the analysis (this paper presents maps for 2009 in the attachments). The analysis is mostly descriptive in character, thus it may not be used to statistically generalise its conclusions. The analysis should be rather treated as an indication of existing dependencies and a starting point for further, detailed analysis.

The communes marked green on the maps received funding from the equalising part of the general grant, the communes marked red on the other hand were required to transfer a part of their tax-based incomes to the state budget. The maps do not show the differentiation in terms of the volume of these transfers.

### **2.2. Dolnośląskie region**

The picture visible in the maps of the region is to a large extent the same as the one described in the analysis of tax-based incomes described in the first part of the paper.

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<sup>8</sup> J. Hausner, *Zarządzanie publiczne*, SCHOLAR, Warsaw 2008, p. 282.

<sup>9</sup> <http://www.mf.gov.pl/index.php?const=6&dzial=1323&wysw=82&sub=sub10>; date of access to data: march 2009.



Wrocław and the communes surrounding it do not receive, in general, any funding from the equalising part of the general grant, some of them transfer part of their incomes to the state budget.

The hypothesis formulated in section 2. seems to be correct as far as the metropolitan area of Wrocław is concerned.

### **2.3. Kujawsko-Pomorskie region**

The communes which qualify for funding within the equalising part of the general grant are plentiful in this region. The functional area of Bydgoszcz and Toruń is in the most favourable situation out of all the analysed regions / functional areas – there is no large grouping of communes which would not qualify for funding or indeed had to transfer a part of their own incomes to the state budget.

Despite the fact that the largest grouping of communes which do not receive the equalising part of the general grant is located to the north-west and north of Toruń and to the east of Bydgoszcz, neither Toruń nor Bydgoszcz are in this group.

In this case the hypothesis formulated in section 2. was not verified positively, however rejecting it altogether is also not entirely justified.

### **2.4. Łódzkie region**

The metropolitan area of Łódź is clearly defined in this analysis. Łódź does receive funding from the equalising part of the general grant, but most of the communes surrounding it (the ones which make up the metropolitan area of Łódź) do not. On the other hand, the communes which lie in the peripheries of the region create large groupings of beneficiaries of the equalising mechanism.

It may be stated that the hypothesis formulated in section 2. is positively verified in this case, despite the fact that Łódź receives funding within the equalising part of the general grant.

### **2.5. Małopolskie region**

The analysis of tax-based incomes was not useful in determining the boundaries of Kraków functional area. The analysis based on the equalising mechanism seems to be much more useful in that respect.

Kraków and a number of communes surrounding it are clearly standing out against the background of the remainder of the region. They are all characterised, amongst other features, by the fact that they do not receive the equalising part of the general grant.

It is certain that the hypothesis formulated in section 2. is positively verified in this case.

## **2.6. Pomorskie region**

The case of Trójmiasto closely resembles the one of Kraków, at least in terms of this analysis. Gdańsk and Gdynia do not receive funding from the equalising part of the general grant, while Sopot is required to transfer a part of its tax-based incomes to the state budget. What is more, the vast majority of communes which are located in the vicinity of Trójmiasto do not receive funding from the equalising part of the general grant – similarly to Gdańsk and Gdynia.

The metropolitan area of Trójmiasto is another case with regards to which the hypothesis formulated in section 2. was verified positively.

## **2.7. Śląskie region**

This region is in many ways extraordinary and different from other analysed regions.

Firstly, the largest grouping of communes which receive funding from the equalising part of the general grant lies within the Silesian conurbation itself, in close neighbourhood to practically all communes which are required to transfer a part of their incomes to the state budget.

Secondly, the communes which do not receive funding from the equalising part of the general grant are concentrated in the southern as well as in the northern periphery of the region (i.e. clearly beyond the boundaries of the Silesian conurbation or, in other words, the Silesian metropolitan area).

This is the only case in this analysis where the hypothesis formulated in section 2. should be rejected (although Katowice were required to transfer a part of their incomes to the state budget in 2007 and in 2009).

## **2.8. Wielkopolskie region**

The metropolitan area of Poznań is another case when a central city and the communes surrounding it (to the west of Poznań in particular) clearly stand out against the background of the region. What is more, Poznań is the only metropolitan city apart from Katowice and Sopot (as part of Trójmiasto) which was required to transfer part of its tax-based incomes to the state budget.

This leads to a conclusion that the hypothesis formulated in section 2. may, in this case, be verified positively.

## **2.9. Summary of the analysis**

In order to summarise the analysis of the equalising part of the general grant it may be stated that in the case of four analysed regions and metropolitan areas out of seven the

hypothesis formulated as: “*a mechanism for equalising incomes of local governments which has been set up within the general grant system favours communes which are located in the peripheries with regards to the metropolitan cities and their metropolitan areas*” was verified positively.

In the case of Łódź metropolitan area the hypothesis was also verified positively, although with one reservation.

In case of Bydgoszcz and Toruń metropolitan area it was not clear whether the hypothesis should be accepted or rejected.

Only in the case of the Silesian conurbation (metropolitan area) verification gave a clearly negative result.

Summarising these findings it may be stated that most analysed cases seem to support the hypothesis.

### **2.10. Recommendations with regards to the system of income equalisation**

The system of equalisation of local government incomes in Poland is based to a large extent on the previously described egalitarian approach (i.e. one which aims at equalising the development potentials of individual entities). That is why territorial units achieving the highest incomes from own sources (typically these are metropolitan cities and surrounding communes which make up the metropolitan area) do not receive as high amounts of general grants as other, peripherally located communes, and may even be required to transfer part of their incomes to the state budget (they are then used to further increase the incomes of communes achieving lower incomes).

The egalitarian approach is particularly strong with regards to districts and regions, but it needs to be emphasised that also with regards to communes its strength is significant. Such a system is most certainly demotivating and reducing the initiative of local authorities, but it may be treated as necessary due to the fact that the state has to ensure that all local governments may carry out their tasks on an adequately high level.

However, if one takes into account higher costs related to the creation and upkeep of technical and social infrastructure which is used not only by the inhabitants of a metropolitan city but also by the inhabitants of the entire metropolitan area and to a certain extent also by the inhabitants of other, peripherally located communes, then it may seem that introducing an equalising mechanism like the one existing in Poland is unfair and, what is more, unjustified.

Weakening this form of income equalisation or even abandoning it completely (at least with regards to metropolises and their metropolitan areas) may thus be postulated based on this line of reasoning. Or, alternatively, it may be proposed that the amounts transferred by

any of the communes belonging to a metropolitan area should remain in that area and be used for financing the tasks which are related to the functioning of the metropolis and its area.

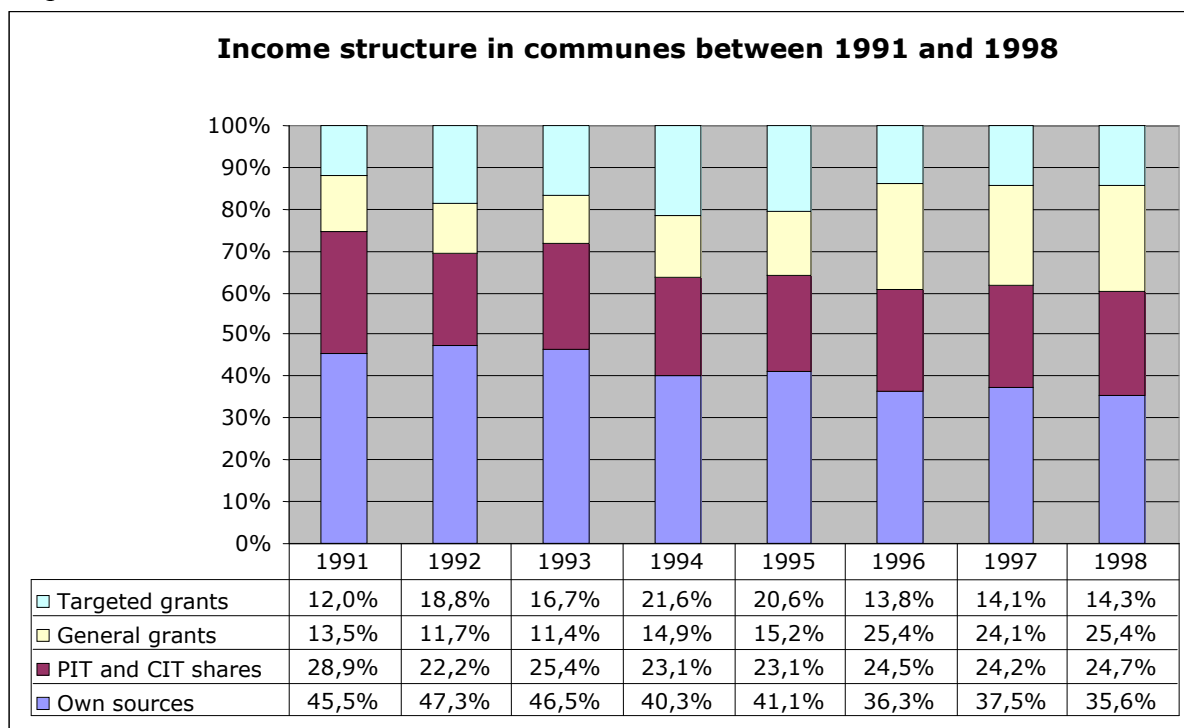
Another postulate may be put forward with regards to the discussion on varying approaches to regional policy which was mentioned earlier in this paper. The postulate is to modify the system of allocating general grants so that it allows to activate the endogenous development factors more and supports raising the competitiveness of regions while minimising the effect of creating dependency on general grants transferred from the state budget regardless of the effectiveness of local initiatives and carried out projects, based only on the number of inhabitants and other such criteria which do not relate in any way to categories such as innovativeness or competitiveness.

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2. ESPON, *Territory matters for competitiveness and cohesion*, ESPON synthesis report III, 2006.
3. J. Hausner, *Zarządzanie publiczne*, SCHOLAR, Warsaw 2008, p. 282.
4. Ministry of Finance, Public Information Bulletin.
5. L. Oulasvirta, M. Turała, *Financial autonomy and consistency of central government policy towards local governments*, International Review of Administrative Sciences, Vol. 76, Sage Publications Ltd., 2009.

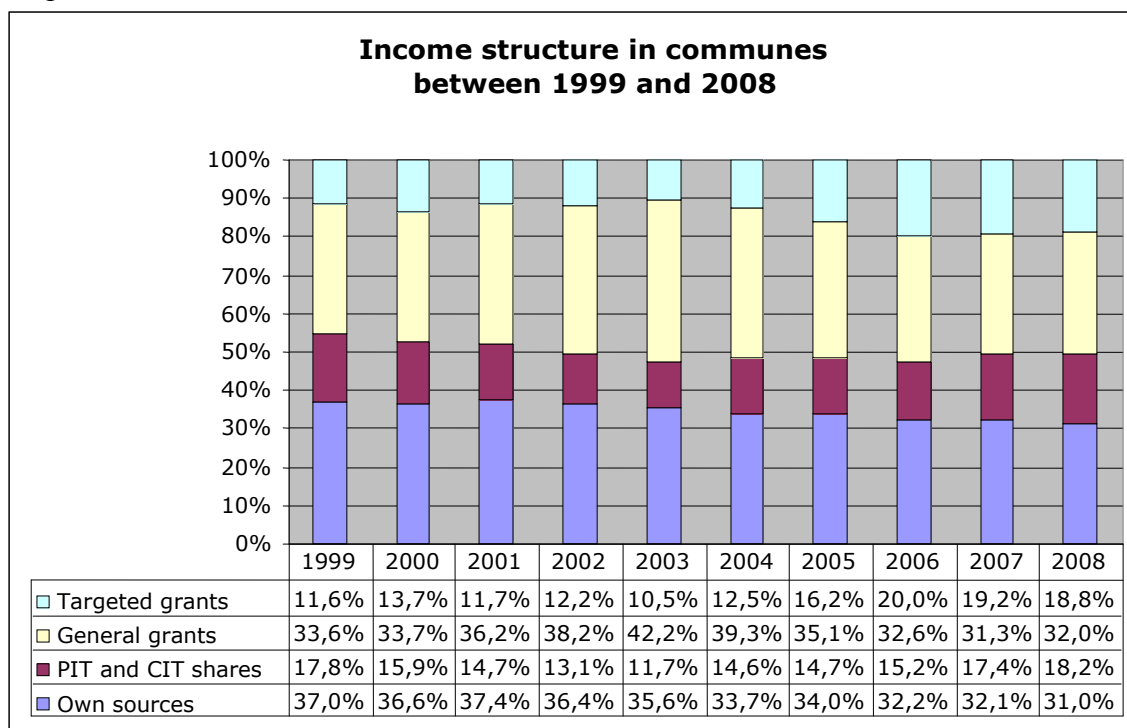
## **ATTACHMENTS**

Graph 1. Incomes of communes between 1991 and 1998



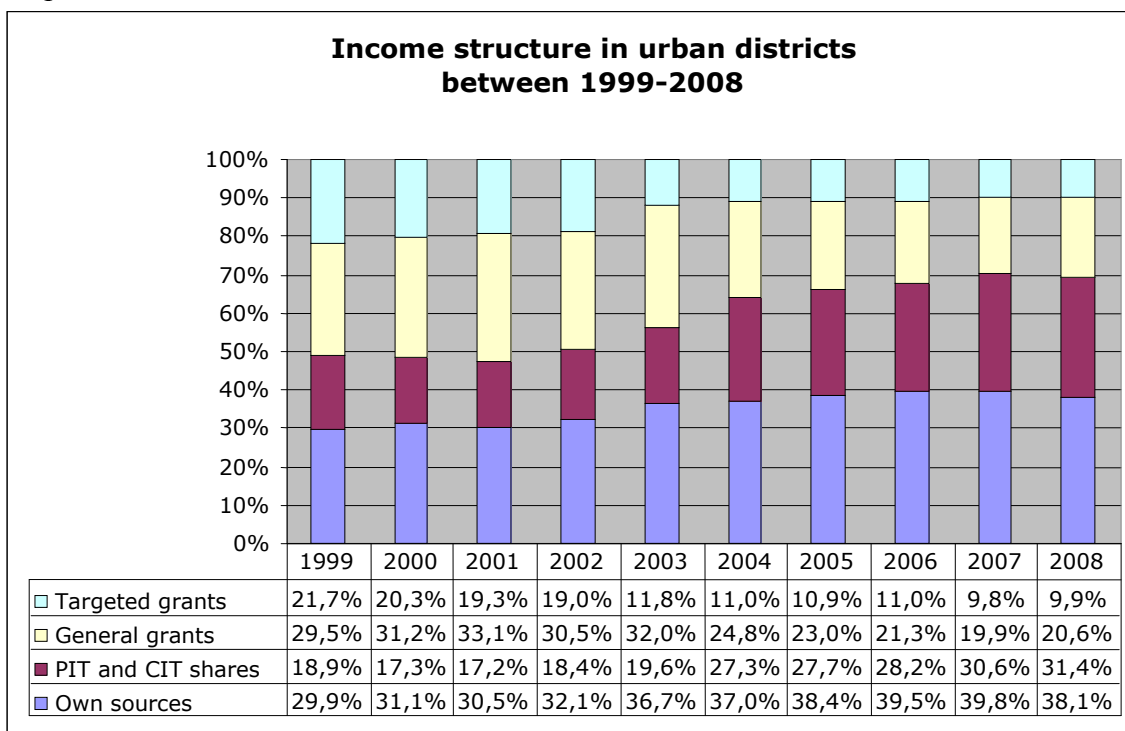
Source: prepared by the author based on Statistical Yearbooks of the Main Statistical Office in Poland..

Graph 2. Incomes of communes between 1999 and 2008



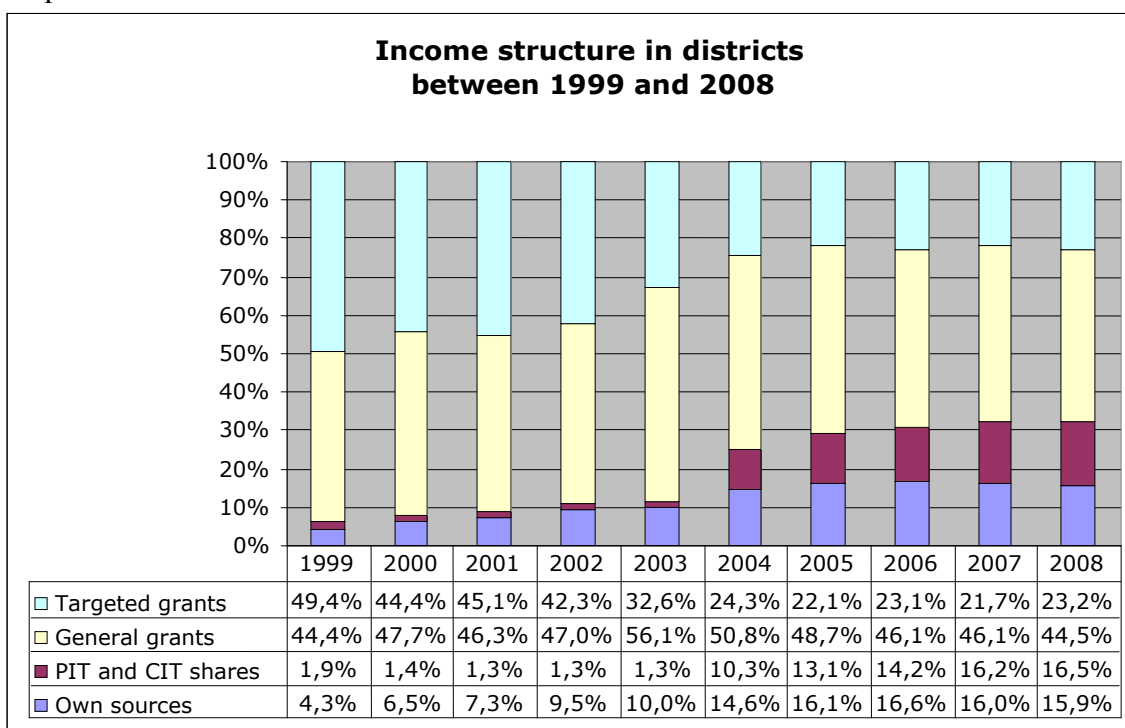
Source: prepared by the author based on *Reports on implementation of the state budzet – information on implementation of local government budgets* published by Polish government between 1999 and 2008.

Graph 3. Incomes of urban districts between 1999 and 2008



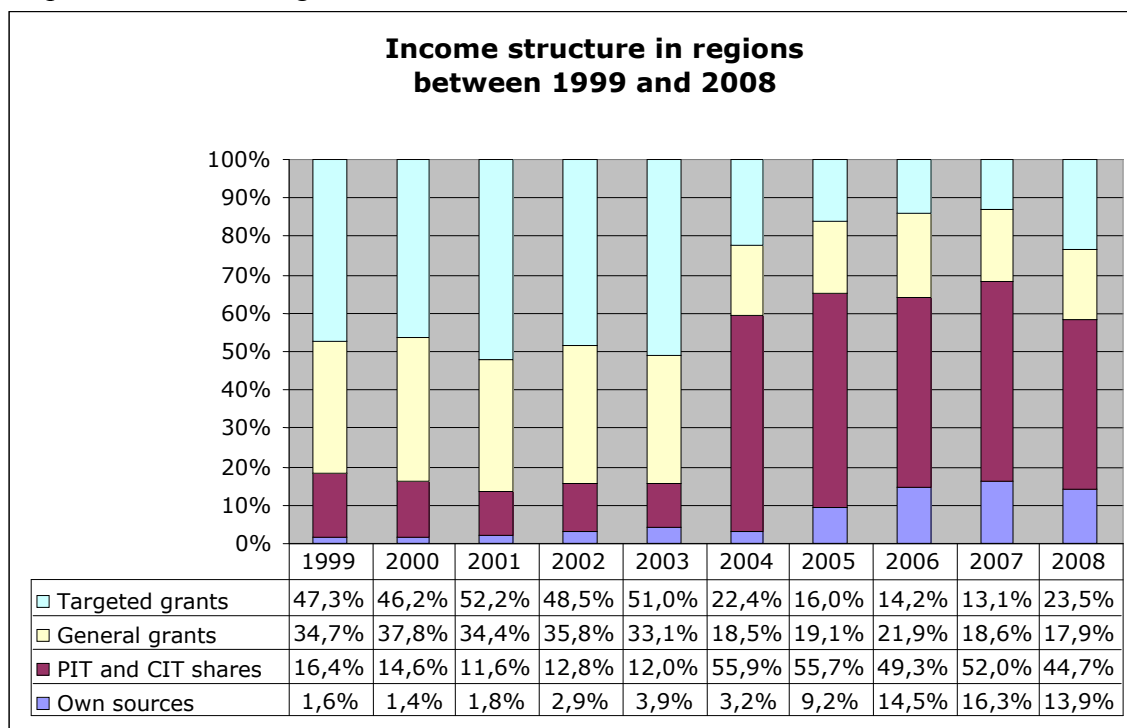
Source: prepared by the author based on *Reports on implementation of the state budget – information on implementation of local government budgets* published by Polish government between 1999 and 2008.

Graph 4. Incomes of districts between 1999 and 2008



Source: prepared by the author based on *Reports on implementation of the state budget – information on implementation of local government budgets* published by Polish government between 1999 and 2008.

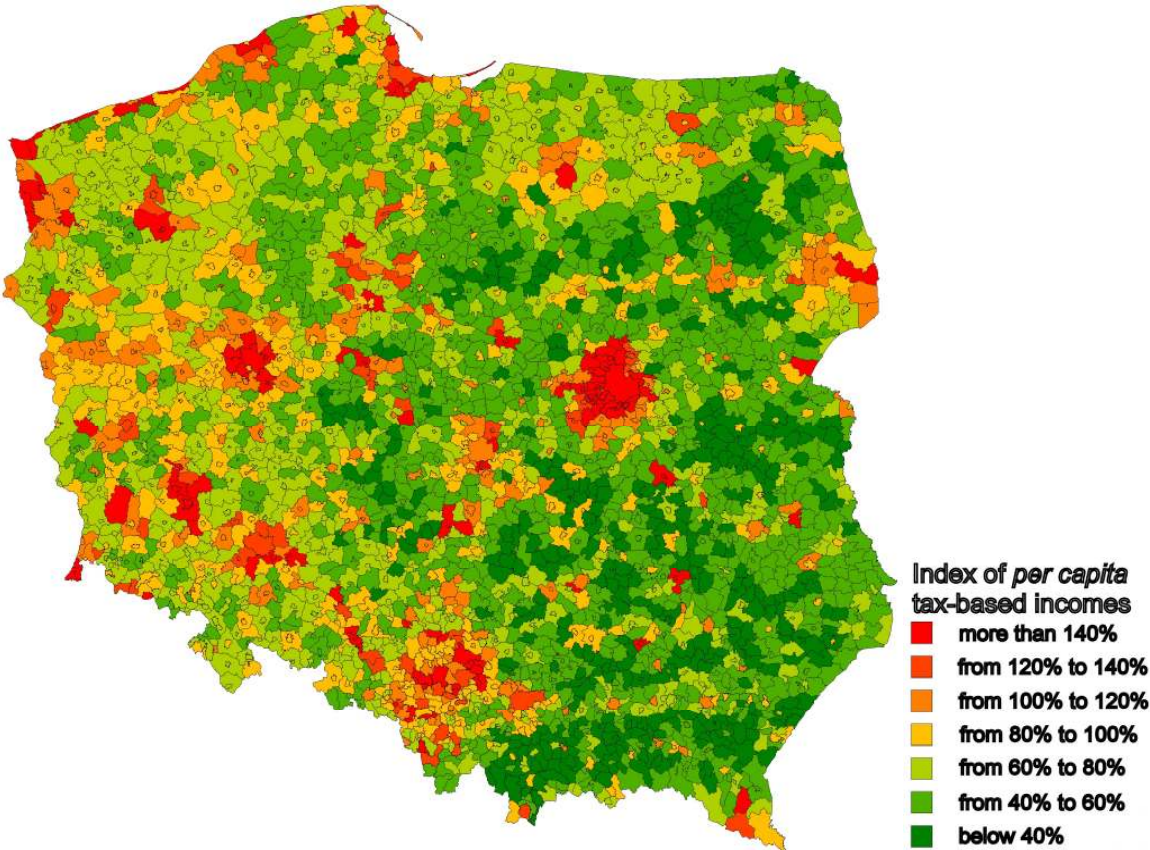
Graph 5. Incomes of regions between 1999 and 2008



Source: prepared by the author based on *Reports on implementation of the state budget – information on implementation of local government budgets* published by Polish government between 1999 and 2008.



Map 1. Index of *per capita* tax-based incomes for Poland (2009)

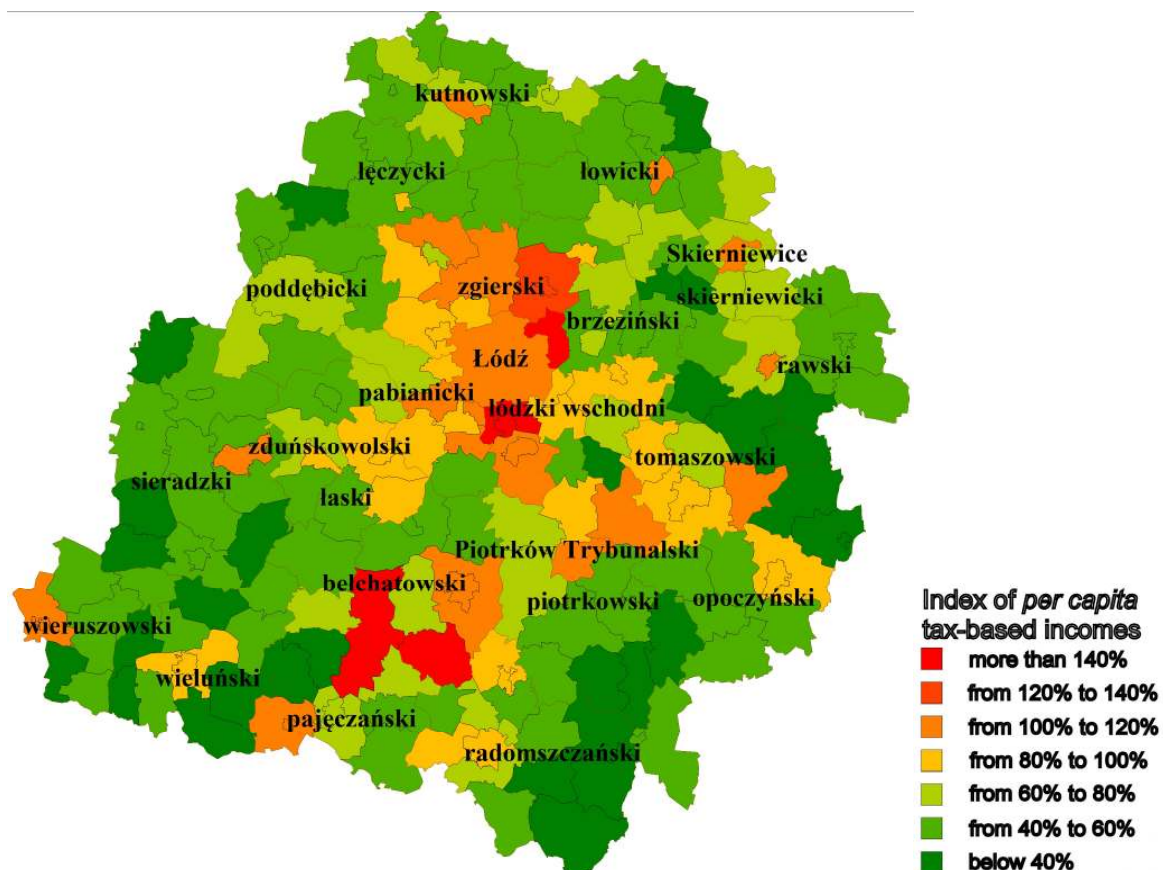


Source: prepared by the author.



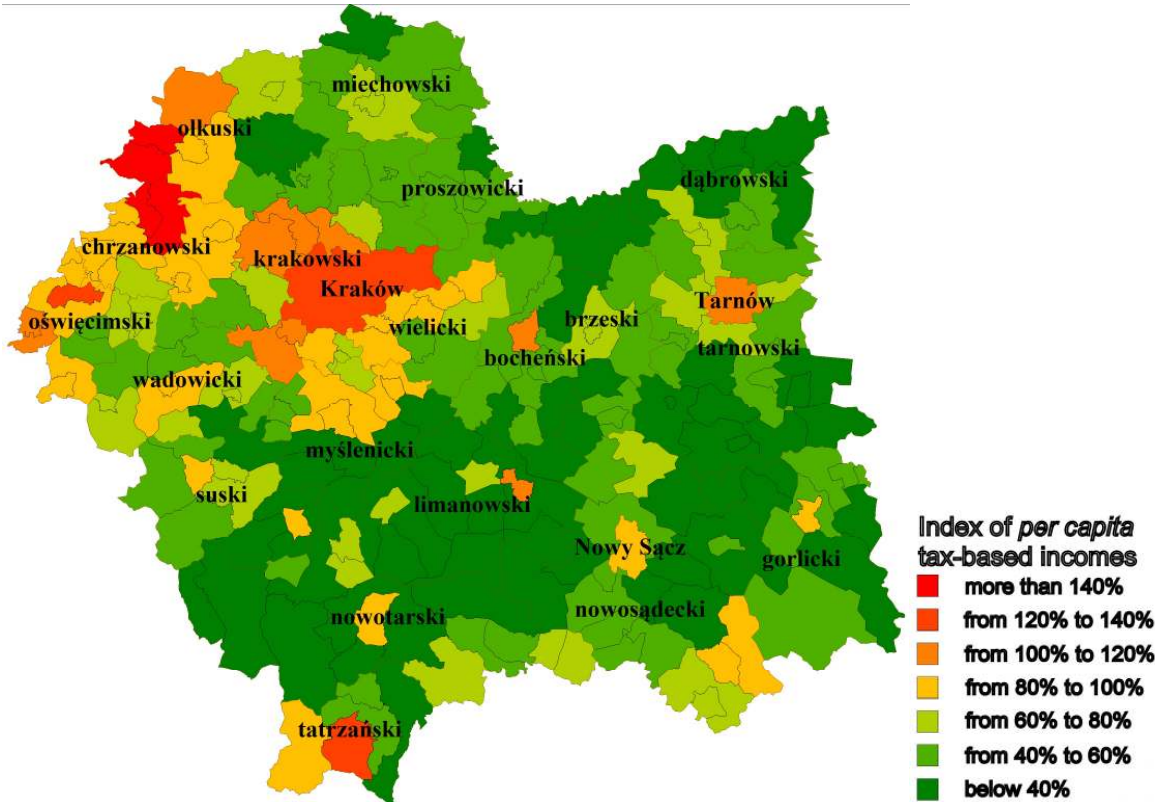


Map 4. Index of *per capita* tax-based incomes for Łódzkie region (2009)



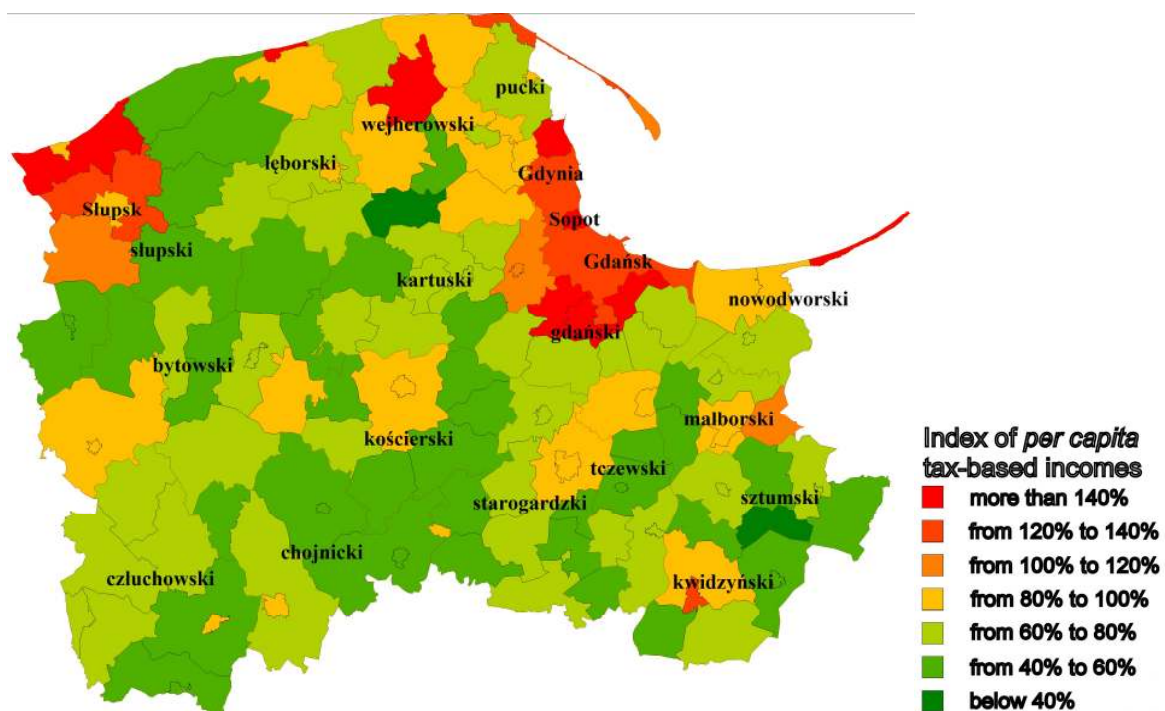
Source: prepared by the author.

Map 5. Index of *per capita* tax-based incomes for Małopolskie region (2009)



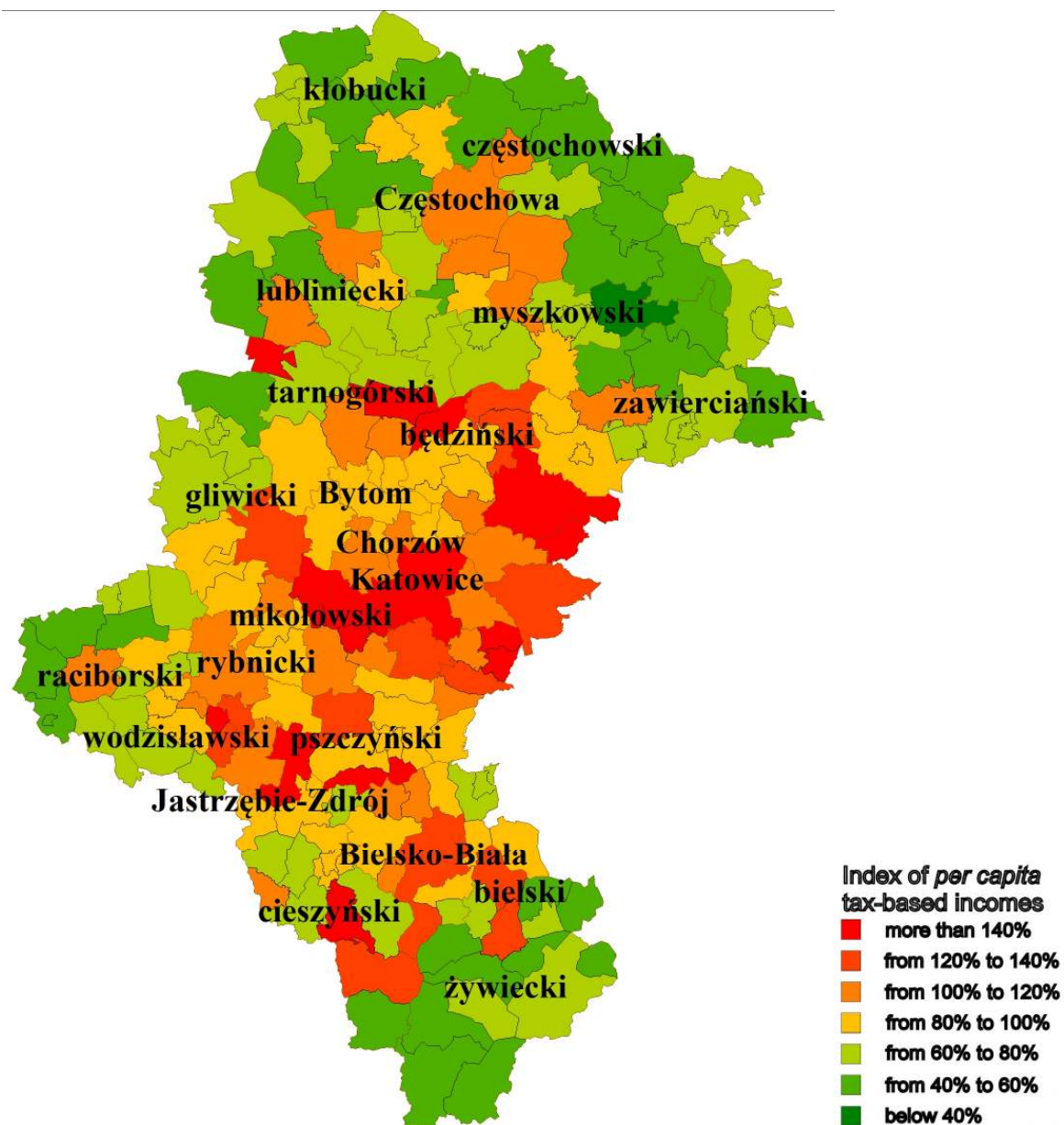
Source: prepared by the author.

Map 6. Index of *per capita* tax-based incomes for Pomorskie region (2009)



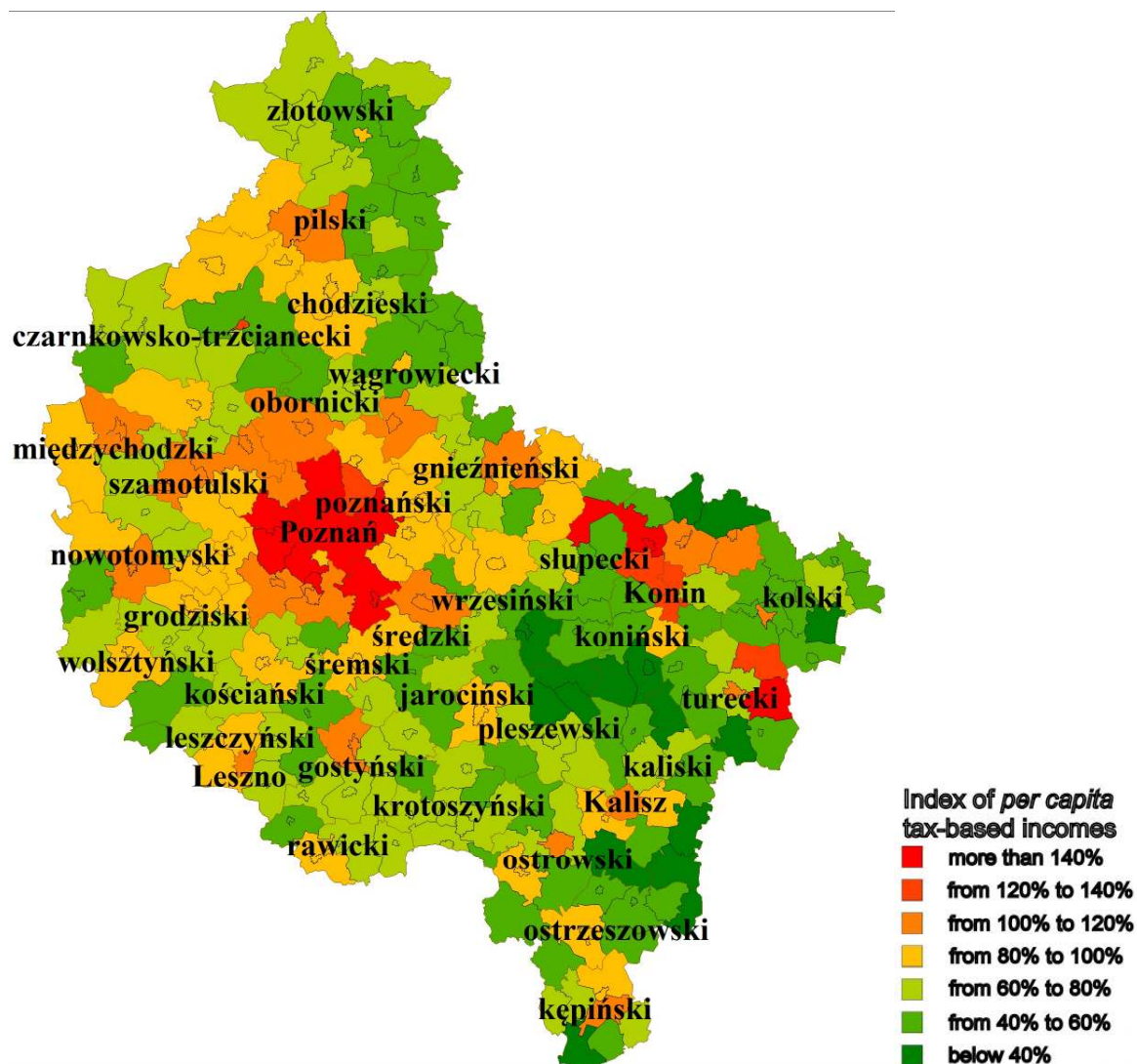
Source: prepared by the author.

Map 7. Index of *per capita* tax-based incomes for Śląskie region (2009)



Source: prepared by the author.

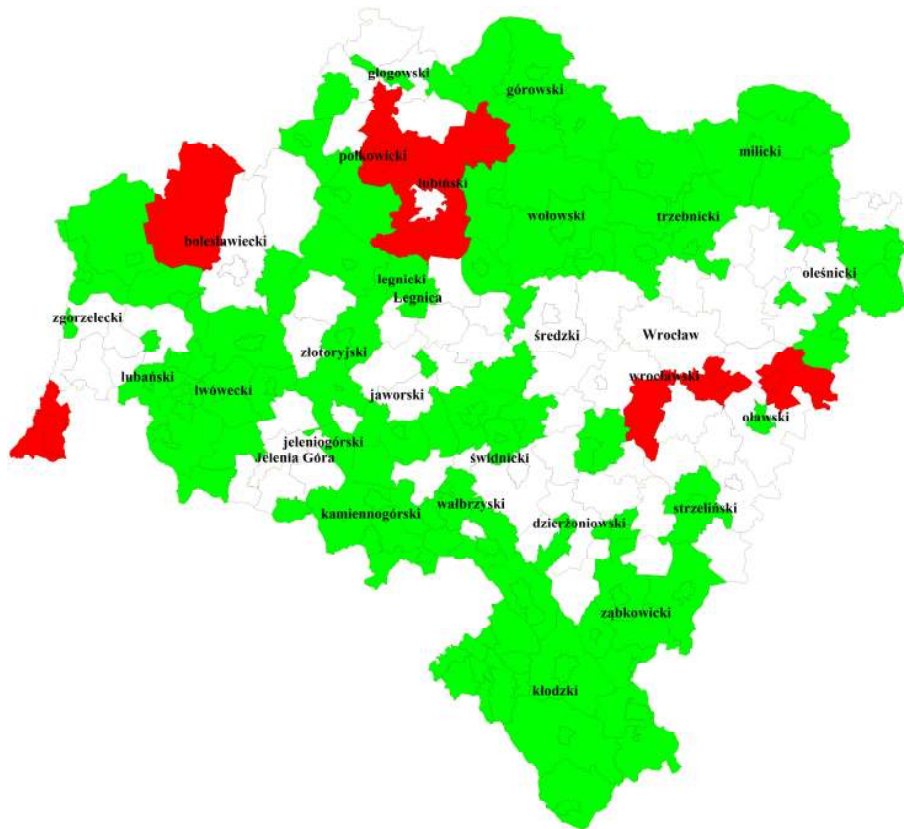
Map 8. Index of *per capita* tax-based incomes for Wielkopolskie region (2009)



Source: prepared by the author.



Map 9. Contributors and beneficiaries of the equalising part of the general grant in Dolnośląskie region (2009)

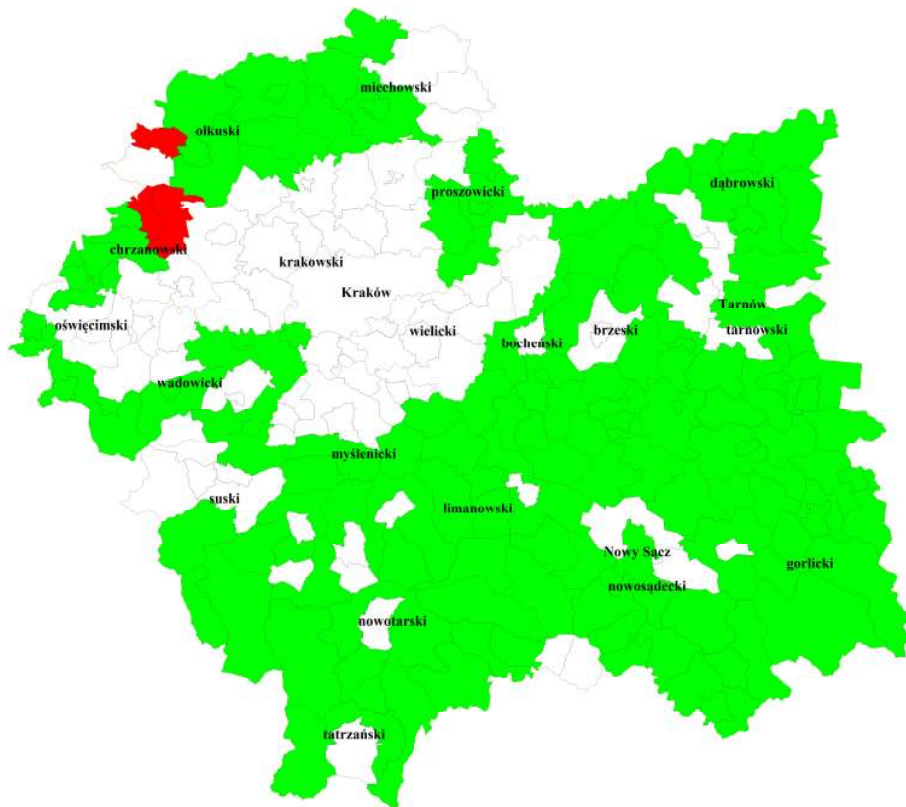


Source: prepared by the author.



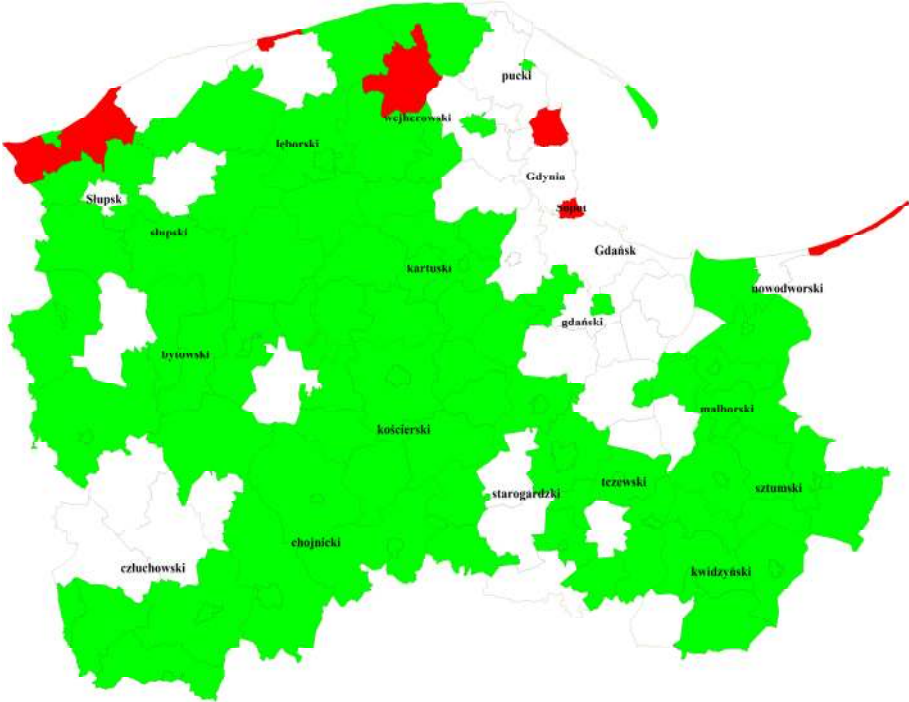


Map 12. Contributors and beneficiaries of the equalising part of the general grant in Małopolskie region (2009)



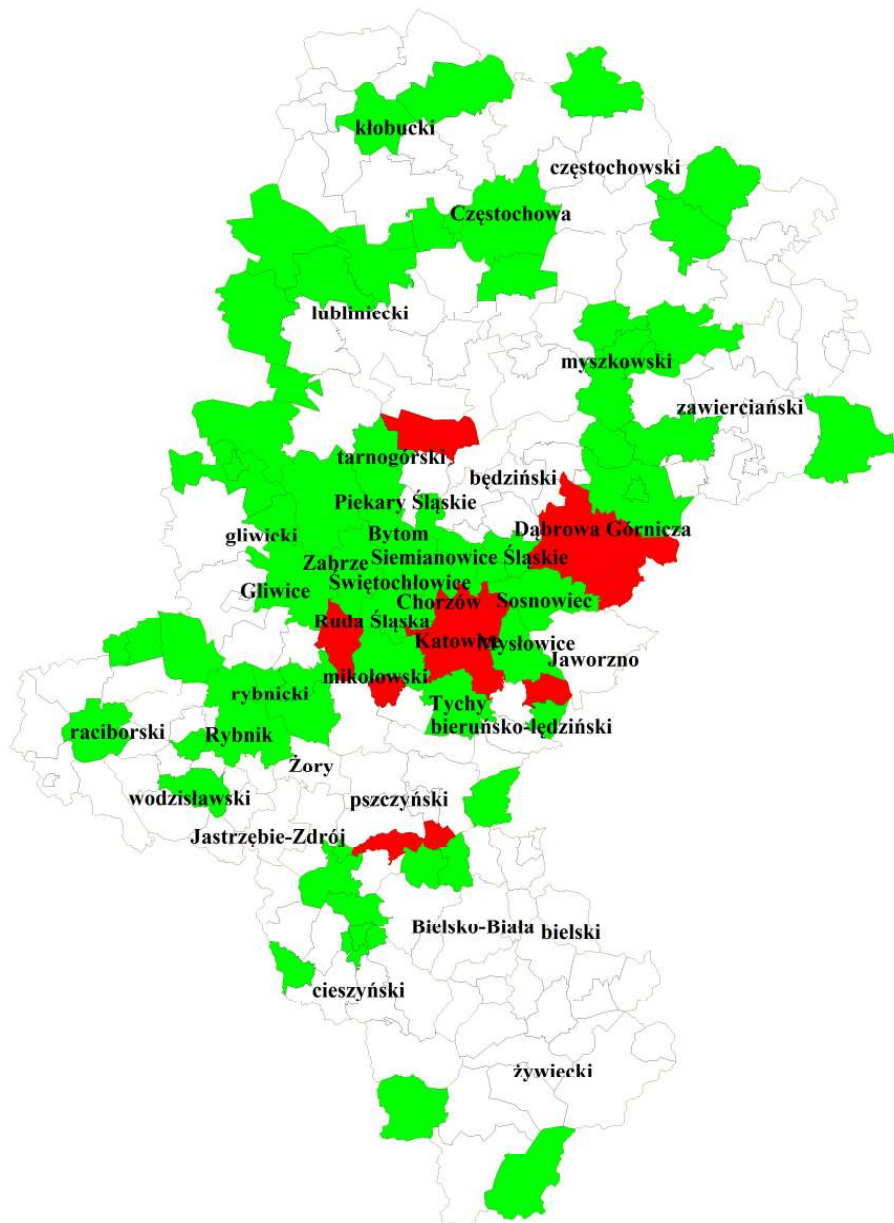
Source: prepared by the author.

Map 13. Contributors and beneficiaries of the equalising part of the general grant in Pomorskie region (2009)



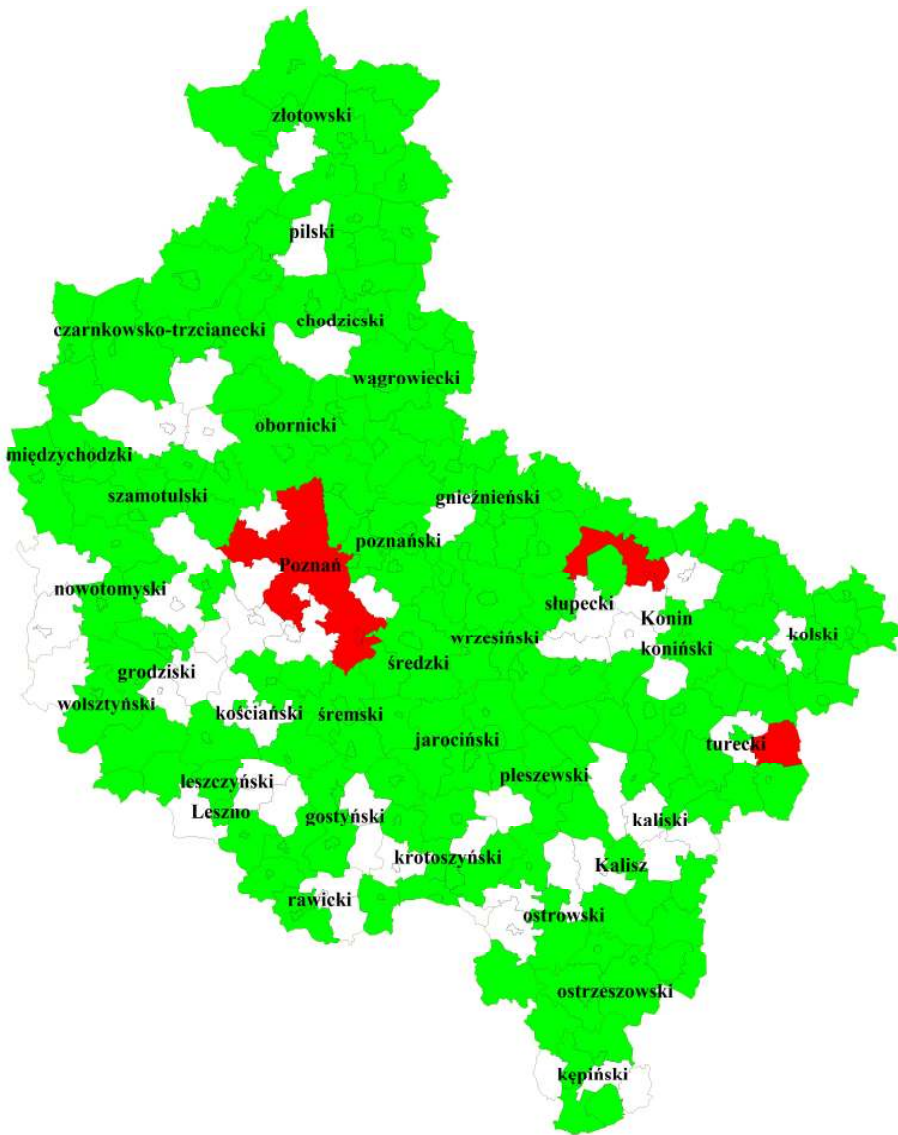
Source: prepared by the author.

Map 14. Contributors and beneficiaries of the equalising part of the general grant in Śląskie region (2009)



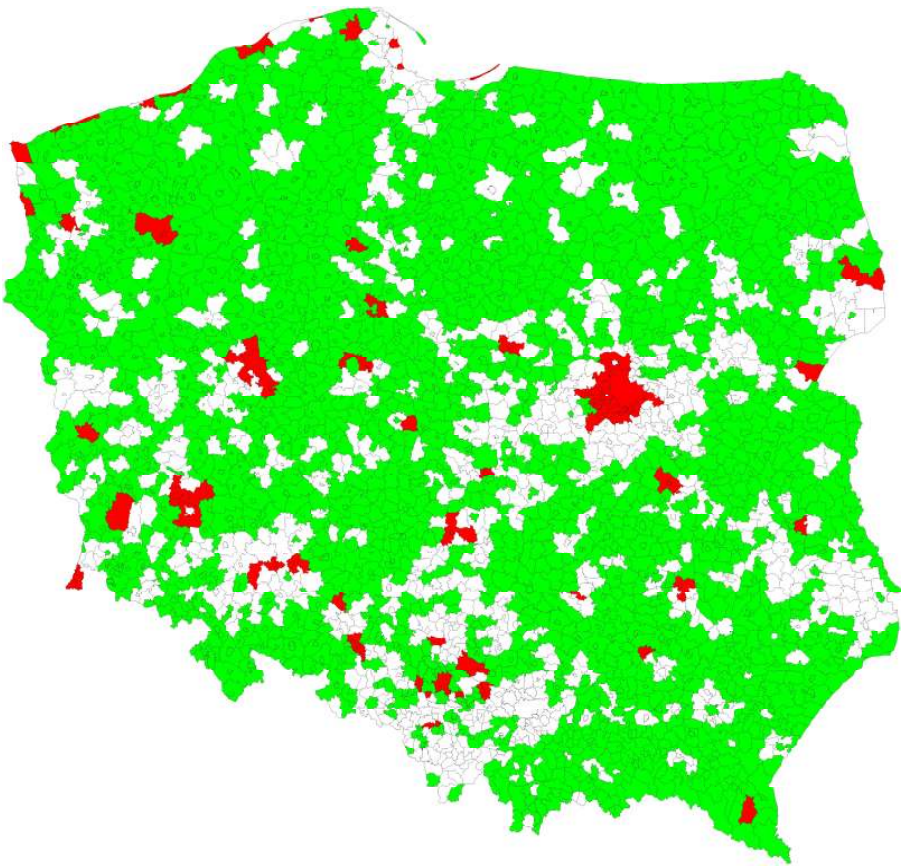
Source: prepared by the author.

Map 15. Contributors and beneficiaries of the equalising part of the general grant in Wielkopolskie region (2009)



Source: prepared by the author.

Map 16. Contributors and beneficiaries of the equalising part of the general grant in Poland (2009)



Source: prepared by the author.



Table 1. Structure of communes in Poland according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>POLAND</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>[0%, 40%)</b>	1039	1084	1054	1150	1178
<b>[40%, 60%)</b>	637	626	653	599	587
<b>[60%, 80%)</b>	398	368	369	355	352
<b>[80%, 100%)</b>	198	192	190	176	182
<b>[100%, 120%)</b>	82	72	77	83	65
<b>[120%, 140%)</b>	43	56	55	38	45
<b>[140%, inf.)</b>	81	80	80	77	69
<b>TOTAL</b>	<b>2478</b>	<b>2478</b>	<b>2478</b>	<b>2478</b>	<b>2478</b>

<b>POLAND (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>[0%, 40%)</b>	41,9%	43,7%	42,5%	46,4%	47,5%
<b>[40%, 60%)</b>	25,7%	25,3%	26,4%	24,2%	23,7%
<b>[60%, 80%)</b>	16,1%	14,9%	14,9%	14,3%	14,2%
<b>[80%, 100%)</b>	8,0%	7,7%	7,7%	7,1%	7,3%
<b>[100%, 120%)</b>	3,3%	2,9%	3,1%	3,3%	2,6%
<b>[120%, 140%)</b>	1,7%	2,3%	2,2%	1,5%	1,8%
<b>[140%, inf.)</b>	3,3%	3,2%	3,2%	3,1%	2,8%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 2. Structure of communes in Dolnośląskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>DOLNOŚLĄSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	19	17	19	24	23
[40%, 60%)	60	65	63	67	69
[60%, 80%)	46	46	45	40	38
[80%, 100%)	23	24	23	18	16
[100%, 120%)	11	5	5	9	10
[120%, 140%)	2	5	6	4	5
[140%, inf.)	8	7	8	7	8
<b>TOTAL</b>	<b>169</b>	<b>169</b>	<b>169</b>	<b>169</b>	<b>169</b>

<b>DOLNOŚLĄSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	11,2%	10,1%	11,2%	14,2%	13,6%
[40%, 60%)	35,5%	38,5%	37,3%	39,6%	40,8%
[60%, 80%)	27,2%	27,2%	26,6%	23,7%	22,5%
[80%, 100%)	13,6%	14,2%	13,6%	10,7%	9,5%
[100%, 120%)	6,5%	3,0%	3,0%	5,3%	5,9%
[120%, 140%)	1,2%	3,0%	3,6%	2,4%	3,0%
[140%, inf.)	4,7%	4,1%	4,7%	4,1%	4,7%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 3 Structure of communes in kKujawsko-Pomorskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>KUJAWSKO-POMORSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	56	59	56	64	70
[40%, 60%)	46	44	51	46	45
[60%, 80%)	21	23	20	17	12
[80%, 100%)	11	7	8	8	8
[100%, 120%)	5	6	4	5	7
[120%, 140%)	3	4	3	4	1
[140%, inf.)	2	1	2	0	1
<b>TOTAL</b>	<b>144</b>	<b>144</b>	<b>144</b>	<b>144</b>	<b>144</b>

<b>KUJAWSKO-POMORSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	38,9%	41,0%	38,9%	44,4%	48,6%
[40%, 60%)	31,9%	30,6%	35,4%	31,9%	31,3%
[60%, 80%)	14,6%	16,0%	13,9%	11,8%	8,3%
[80%, 100%)	7,6%	4,9%	5,6%	5,6%	5,6%
[100%, 120%)	3,5%	4,2%	2,8%	3,5%	4,9%
[120%, 140%)	2,1%	2,8%	2,1%	2,8%	0,7%
[140%, inf.)	1,4%	0,7%	1,4%	0,0%	0,7%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 4. Structure of communes in Łódzkie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>ŁÓDZKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	92	101	95	102	103
[40%, 60%)	42	31	34	28	27
[60%, 80%)	21	22	20	22	23
[80%, 100%)	12	16	19	19	18
[100%, 120%)	4	1	3	1	1
[120%, 140%)	2	3	2	1	2
[140%, inf.)	4	3	4	4	3
<b>TOTAL</b>	<b>177</b>	<b>177</b>	<b>177</b>	<b>177</b>	<b>177</b>

<b>ŁÓDZKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	52,0%	57,1%	53,7%	57,6%	58,2%
[40%, 60%)	23,7%	17,5%	19,2%	15,8%	15,3%
[60%, 80%)	11,9%	12,4%	11,3%	12,4%	13,0%
[80%, 100%)	6,8%	9,0%	10,7%	10,7%	10,2%
[100%, 120%)	2,3%	0,6%	1,7%	0,6%	0,6%
[120%, 140%)	1,1%	1,7%	1,1%	0,6%	1,1%
[140%, inf.)	2,3%	1,7%	2,3%	2,3%	1,7%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 5. Structure of communes in Małopolskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>MAŁOPOLSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	120	123	120	123	121
[40%, 60%)	26	26	27	23	25
[60%, 80%)	21	17	19	19	21
[80%, 100%)	9	9	8	10	9
[100%, 120%)	3	4	4	3	3
[120%, 140%)	2	3	4	3	3
[140%, inf.)	1	0	0	1	0
<b>TOTAL</b>	<b>182</b>	<b>182</b>	<b>182</b>	<b>182</b>	<b>182</b>

<b>MAŁOPOLSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	65,9%	67,6%	65,9%	67,6%	66,5%
[40%, 60%)	14,3%	14,3%	14,8%	12,6%	13,7%
[60%, 80%)	11,5%	9,3%	10,4%	10,4%	11,5%
[80%, 100%)	4,9%	4,9%	4,4%	5,5%	4,9%
[100%, 120%)	1,6%	2,2%	2,2%	1,6%	1,6%
[120%, 140%)	1,1%	1,6%	2,2%	1,6%	1,6%
[140%, inf.)	0,5%	0,0%	0,0%	0,5%	0,0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 6. Structure of communes in Pomorskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>POMORSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	27	30	34	39	39
[40%, 60%)	46	49	46	39	38
[60%, 80%)	23	16	19	23	27
[80%, 100%)	9	10	7	5	4
[100%, 120%)	7	9	9	9	7
[120%, 140%)	3	4	3	2	3
[140%, inf.)	8	5	5	6	5
<b>TOTAL</b>	<b>123</b>	<b>123</b>	<b>123</b>	<b>123</b>	<b>123</b>

<b>POMORSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	22,0%	24,4%	27,6%	31,7%	31,7%
[40%, 60%)	37,4%	39,8%	37,4%	31,7%	30,9%
[60%, 80%)	18,7%	13,0%	15,4%	18,7%	22,0%
[80%, 100%)	7,3%	8,1%	5,7%	4,1%	3,3%
[100%, 120%)	5,7%	7,3%	7,3%	7,3%	5,7%
[120%, 140%)	2,4%	3,3%	2,4%	1,6%	2,4%
[140%, inf.)	6,5%	4,1%	4,1%	4,9%	4,1%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 7. Structure of communes in Śląskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>ŚLĄSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>[0%, 40%)</b>	32	28	28	31	35
<b>[40%, 60%)</b>	40	46	41	41	39
<b>[60%, 80%)</b>	36	30	34	34	37
<b>[80%, 100%)</b>	21	21	22	27	27
<b>[100%, 120%)</b>	17	18	19	14	13
<b>[120%, 140%)</b>	8	5	6	7	8
<b>[140%, inf.)</b>	13	19	17	13	8
<b>TOTAL</b>	<b>167</b>	<b>167</b>	<b>167</b>	<b>167</b>	<b>167</b>

<b>ŚLĄSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>[0%, 40%)</b>	19,2%	16,8%	16,8%	18,6%	21,0%
<b>[40%, 60%)</b>	24,0%	27,5%	24,6%	24,6%	23,4%
<b>[60%, 80%)</b>	21,6%	18,0%	20,4%	20,4%	22,2%
<b>[80%, 100%)</b>	12,6%	12,6%	13,2%	16,2%	16,2%
<b>[100%, 120%)</b>	10,2%	10,8%	11,4%	8,4%	7,8%
<b>[120%, 140%)</b>	4,8%	3,0%	3,6%	4,2%	4,8%
<b>[140%, inf.)</b>	7,8%	11,4%	10,2%	7,8%	4,8%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.

Table 8. Structure of communes in Wielkopolskie region according to the index of *per capita* tax-based incomes between 2005 and 2009

<b>WIELKOPOLSKIE</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	72	71	71	79	84
[40%, 60%)	63	67	63	64	60
[60%, 80%)	47	38	45	41	44
[80%, 100%)	24	30	25	22	22
[100%, 120%)	9	6	9	11	5
[120%, 140%)	5	8	5	1	2
[140%, inf.)	6	6	8	8	9
<b>TOTAL</b>	<b>226</b>	<b>226</b>	<b>226</b>	<b>226</b>	<b>226</b>

<b>WIELKOPOLSKIE (%)</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
[0%, 40%)	31,9%	31,4%	31,4%	35,0%	37,2%
[40%, 60%)	27,9%	29,6%	27,9%	28,3%	26,5%
[60%, 80%)	20,8%	16,8%	19,9%	18,1%	19,5%
[80%, 100%)	10,6%	13,3%	11,1%	9,7%	9,7%
[100%, 120%)	4,0%	2,7%	4,0%	4,9%	2,2%
[120%, 140%)	2,2%	3,5%	2,2%	0,4%	0,9%
[140%, inf.)	2,7%	2,7%	3,5%	3,5%	4,0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: prepared by the author.