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**Alicja Sekuła, Gdansk University of Technology, Alicja.Sekula@zie.pg.gda.pl**

## **DOES THE SOURCE MATTER? GENERATION OF INVESTMENT EXPENDITURES BY DIFFERENT TYPES OF LOCAL GOVERNMENT REVENUE**

**Summary:** The purpose of the article was to investigate the impact of the three fundamental statutory categories of budget revenue, i.e. own revenue, general subsidies and specific grants on the size of investment made by local government units in Poland. The subject scope included the local government subsector in its entirety, as well as divided into 4 groups: communes (*gmina*), cities with *powiat* rights, districts (*powiat*) and voivodeships (*województwo*). The time period was 1999-2011; the spatial scope covered the territory of the whole country. The research proved that, with one exception, there was a relationship between the increase in specific grants and capital expenditure and between the increase of own revenue and capital expenditure.

**Keywords:** investment expenditure, local government revenue, specific grants.

### **1. Introduction**

Local government in Poland is organized into three levels: communes (*gmina*), districts (*powiat*) and voivodeship (*województwo*). At each level, the local government units (LGUs) are responsible for different tasks. These may include tasks specific for a particular level, e.g. cemetery management; in other cases the tasks are of a similar nature, e.g. maintenance of roads or running schools, but they differ as to the location of activities. The same goes for the sources of budget revenue. In some cases, only one level is supplied from a particular source, e.g. health resort taxes or agricultural tax; in others, all three levels are supplied from the same source, e.g. the shares in corporate income tax collected or the interest accrued on the funds kept in bank accounts.

Regardless of the number of sources supplying local government budgets, their prevalence or output, they can be divided into three groups: own revenue (or local income), general subsidies (or general grants, transfers – terms used interchangeably) and specific grants (or grants for a specific purpose) from the State Budget. This division, although debatable from the point of view of the characteristics of the sources of revenue classified into each group, corresponds to that provided by

the Constitution [The Constitution... 1997, art. 167, p. 2] and shall also be used throughout this article. The criterion for the division into the three groups of the budget revenue of local government units was the degree of decentralisation. The units' own revenue is assumed to be decentralised both in the income and expenditure sphere, in contrast to specific grants which are centralised both in terms of budget revenue and expenditure. General subsidies are of intermediate nature, being centralised on the revenue side but decentralised on the expenditure side.

The above-mentioned characteristics are the focal point of this study. The article investigates the impact of each category of budget revenue on capital expenditure. The subject scope includes the local government subsector in its entirety, as well as divided into 4 groups: *gmina* (excluding cities with *powiat* rights), cities with *powiat* rights (*CwPR*), *powiat* (so-called country districts - *powiat ziemski*) and voivodeships; the time period is 1999-2011; the spatial scope covers the territory of the whole country, i.e. all units.

The main reason for conducting the studies described below was the absence of comprehensive analyses describing the relationship between the type of revenue and capital expenditure; this is due to the fact that most studies focus on the impact of a particular revenue category on the investment activity of selected local government units [e.g. Bojorquez, Champagne, Vaillancourt 2009].

## **2. The structure of revenue of LGUs in Poland and its characteristic features**

The constitutional division of local government revenue into own revenue, general subsidies and specific grants from the State Budget, is carried out with consideration of the independence of local government in regard to structuring the revenue and spending of funds derived from a particular source. Local government is responsible for raising the maximum possible revenue to pay for services and programs demanded by citizens [Carroll, Johnson 2010, p. 223].

The revenue of a local government depends on the jurisdiction of a particular country, but also on the economic, technological and demographic changes [Bartle, Kriz, Morozov 2011, p. 269]. The fundamental category is own revenue. This concept "[...] is understood to mean the revenue whose sources are situated in the territory of a particular local government unit and which have been granted to the unit in their entirety and indefinitely" [Guziejewska 2005, p. 63]. The extent of financial independence of a territorial unit is relative to the share of own revenue in the budget. A high level of own revenue is considered to be an expression of activity and self-sufficiency of territorial units.

By law [Act of 13 November 2003... art. 3, p. 2], own revenue includes the units' share in the corporate and personal income taxes, which constitute part of State Budget revenue. This inclusion is only of formal nature, since this revenue

does not possess the features of own revenues, as defined in theory [Kornberger-Sokołowska 2004, p. 13], i.e. the fiscal control understood to mean the ownership of the sources of revenue or the entitlement to introduce and structure the revenue, enabling independent financial management.

The potential for generating own revenue varies from unit to unit, which results in considerable differences in the size of revenue. In such cases revenue can be supplemented by general subsidies, which ensure the ability to offer public services of quality and availability at the minimum acceptable level. The primary aim of fund transfer in the form of general subsidies is to supplement a particular unit's own revenue. What distinguishes them from specific grants, referred to in a later part of the article, is the freedom as to the way of the funds' disposal. The decision concerning the allocation of funds from general subsidies rests with the regulatory authority. This solution follows the guidelines of the European Charter of Local Self-Government (ECLSG), which provides that the financial resources granted in the form of general subsidies should not be allocated to specific projects [*European Charter...*, art. 9, p. 7].

In common with general subsidies, specific grants belong to the category of revenue that derives from the State Budget. The method of disposal of this revenue is determined by the grant provider, and thus enables the central government to earmark the funds for purposes that are given priority by this government. They are regarded as the most centralised source of revenue, interfering in the financial management of spatial units to the greatest extent.

The characteristic features of specific grants include [Sekuła 2009, p. 766]:

- their connection with the purpose for which they are earmarked and may be spent,
- their connection with the time period for which they remain at the local government's disposal - usually, until the end of the calendar year,
- the obligation to return the funds to the State Budget if they are not disposed of in the full amount or within the specified time period.
- frequent exercise of the administrative bodies' own discretion during the division of funds.

These features are characteristic of specific grants, whether provided to public entities or enterprises [Park 2012, p. 414].

The absence of clear rules of fund distribution and the grant provider's interference in the manner of task implementation and fund disposal are considered to be a downside of specific grants. According to ECLSG guidelines, specific grants should play the role of a supplementary source of revenue [*European Charter...*, art. 9, p. 1]. This recommendation is not only given in Europe. In Canada grants to municipalities were an important but not the most important source of revenue for municipalities in the 1990–2005 period [Bojorquez, Champagne, Vaillancourt 2009, p. 442].

### 3. The importance of capital expenditure in development policies of LGUs

The main objective of local government unit administration is their development. This would be impossible without investment [Filipiak 2008, p. 36]. Regardless of the adopted definition of development or development management, one of the elements that impact the development level rating is the condition of the infrastructure. Infrastructure may be classified as public capital goods. These consist of motorways and roads, road transport and airport facilities, educational institution buildings, electricity, gas and water supply facilities and distribution systems, waste treatment plants as well as correction units, police, fire brigades, and judiciary buildings [Ayogu 1999, p. 171]. The condition of the infrastructure depends largely on the activity of the local government, and above all, on the investment policy followed. P. R. Agénor reports, quoting the World Bank, that in the early 1990s the obsolete infrastructure of roads, railways, power generation and transmission and water supply systems was responsible for losses corresponding to a quarter of the amount invested by these countries in infrastructure over one year [Agénor 2009, p. 233].

One of the methods leading to a qualitative and quantitative improvement of infrastructure is the investment process. Most investments, especially of public utility character, are conducted by public entities, chiefly LGUs. The financial magnitude of investment projects is reflected in the budget in the form of capital expenditure.

### 4. The adopted research method and the results of the research

In order to investigate the impact of different types of revenue on capital expenditures of a local government, a variety of econometric models can be used [Bojorquez, Champagne, Vaillancourt 2009, p. 448]. The multiple regression method was used in the studies presented in this article. The linear model was chosen, having the following form [Aczel 2000, p. 521]:

$$y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + e,$$

where:  $y$  – capital expenditure,  $x_1$  – own revenue,  $x_2$  – specific grants<sup>1</sup>,  $x_3$  – general subsidies,  $b$  – slope,  $b_0$  – constant,  $e$  — random component.

The overall summary of results of the analyses is presented in Table 1. The fit of the theoretical model to actual data is shown in Figures 1-5.

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<sup>1</sup> These also include specific grants received in the framework of financial programmes involving European funds and funds or payments in the framework of European fund budget.

Based on the data in Table 1, it can be concluded that the revenue which was converted into investment to the greatest extent were, generally speaking, specific grants. This goes for the basic local units, i.e. communes and CwPR, but also voivodeships and the entire local government subsector<sup>2</sup>. In the period investigated, an increase in specific grants by PLN 1 million resulted in an increase in capital expenditure by more than PLN 800 thousand in communes (and the whole local government subsector), by more than PLN 700 thousand in CwPR and voivodeships and by just under PLN 500 thousand in districts (assuming constant own revenue).

**Table 1.** Capital expenditure models depending on own expenditure, specific grants and general subsidies — statistics summary

	Own revenue	Specific grants	General subsidies	Adjusted $R^2$	$F$
1	2	3	4	5	6
Local government subsector	0.237	0.817	-	0.98	281.72
Communes (excluding CwPR)	-	0.862	-	0.94	170.31
CwPR	0.282	0.750*	-	0.96	124.59
Districts	0.558	0.440	-	0.91	60.81
Voivodeships	0.420	0.710	-	0.99	451.96

(-) variables not included in the regression equation; adjusted  $R^2$  – model fit;  $F$  — Fisher-Snedecor test statistic;  $p < .001$ ,  $*p < .01$ , the table contains non-standardised regression coefficients.

Source: own elaboration based on data from the Ministry of Finance, [www.mf.gov.pl](http://www.mf.gov.pl)

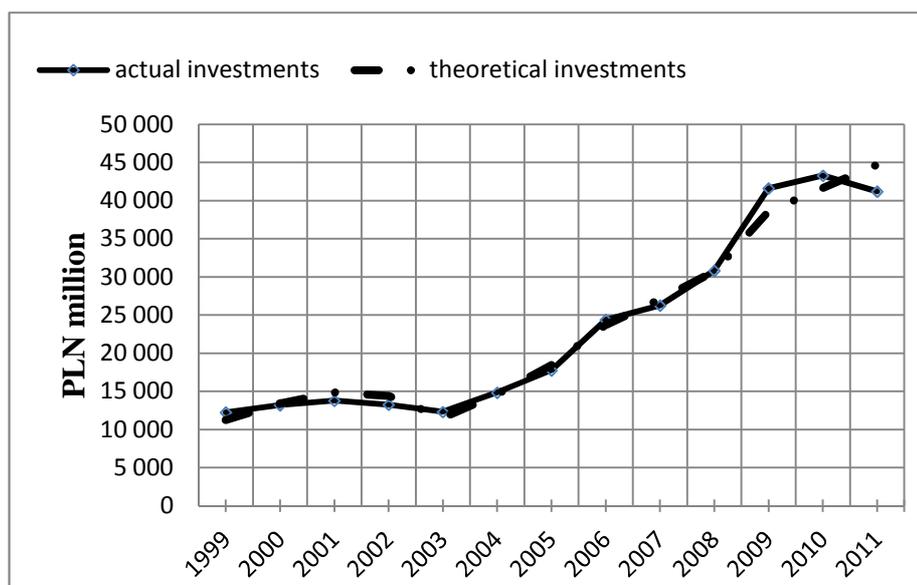
Own revenue also had an impact on the investment activity. Apart from districts, it was less significant than in the case of specific grants, varying between PLN 237 thousand (entire local government sector) and PLN 420 thousand (voivodeships). The exceptions are communes, whose own revenue was not statistically significant from the point of view of investment policy, and, on the other hand, district, where the effect of own revenue exceeded that of specific grants - a PLN 1 million increase in own revenue resulted in an increase of capital expenditure by PLN 558 thousand (assuming constant specific grants). Commenting on this situation, it is necessary to consider not only the financial standing of local government units, but also the responsibilities resting with the individual levels of local government. In the case of communes (in this article they are small units, since CwPR were excluded from the category for the purpose of analysis), the responsibilities placed on the units are not commensurate with the output of sources of own revenue and the resulting financial capabilities of communes. The expenditure concerning ongoing

<sup>2</sup> The financial resources of communes and CwPR account for ca. 80% of the financial resources of the local government subsector. That is why the results of financial analyses concerning the entire local government subsector often differ very little from those concerning the financial resources of communes.

tasks uses up, and often exceeds, all their own revenue. Cities with *powiat* rights use their own revenue to carry out investment processes only to a small extent. They perform the combined tasks of communes and districts. They include economically powerful cities, more self-sufficient, large and independent capitals of present and former provinces. They cope more effectively than country communes or small towns in terms of economy and finances. Hence, their investment is partially financed from their own revenue. Districts and voivodeships are burdened with fewer capital-consuming responsibilities and therefore their sources of funds for their investment are both specific grants and their own revenue.

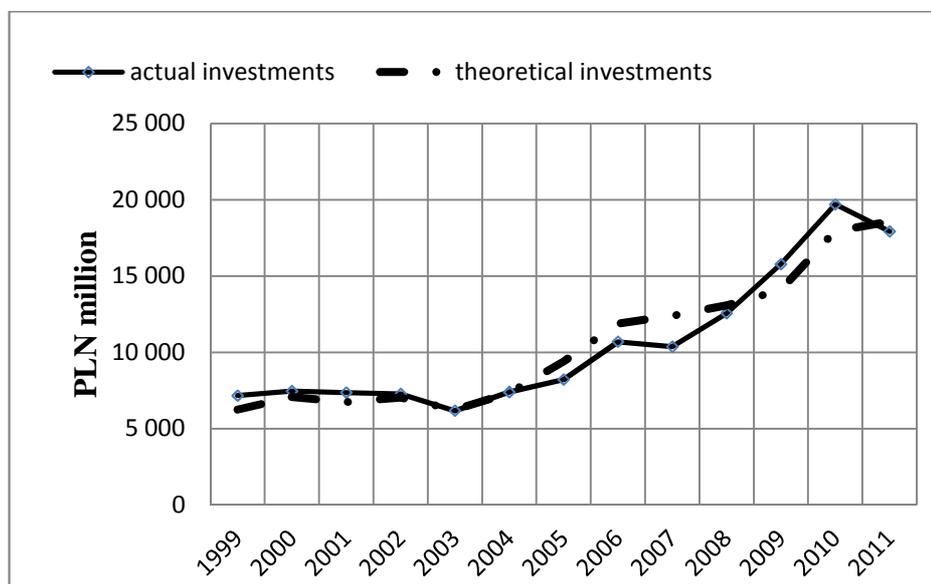
The analysis failed to demonstrate any statistically significant relationship between general subsidies and capital expenditure. This is presumably due to the structure of subsidies. The funds received in the form of a subsidy constitute of a number of independently calculated components. Their titles do not determine the manner of spending of the received funds, but only provide for a greater flexibility due to the different algorithms of calculations and transfers and the possibility of including various numbers of criteria. In fact, however, ca. 80–95% of the subsidy consists of one of its components - the education subsidy, which is transferred by the local government on account of the execution of educational tasks by the local government and on account of current educational tasks, such as teachers' salaries and ongoing maintenance of educational facilities. Therefore, it does not have a statistical significance on the extent of investment in the entire local government sector and its individual levels.

It is noteworthy that the presented model (Table 1, column 5) fits very well to empirical data. The variability of own revenue and specific grants in each case account for more than 90% of capital expenditure. The actual capital expenditure and that calculated using the model are presented in Figures 1-5. While examining the graphs, it is worth turning attention to the year 2011, when the capital expenditure predicted by the model was higher than actual expenditure in four cases out of five. This difference is probably due to the crisis, whose impact on expenditure of local government units has been delayed in relation to the results observed in the economy [Sekuła 2010b, p. 193].



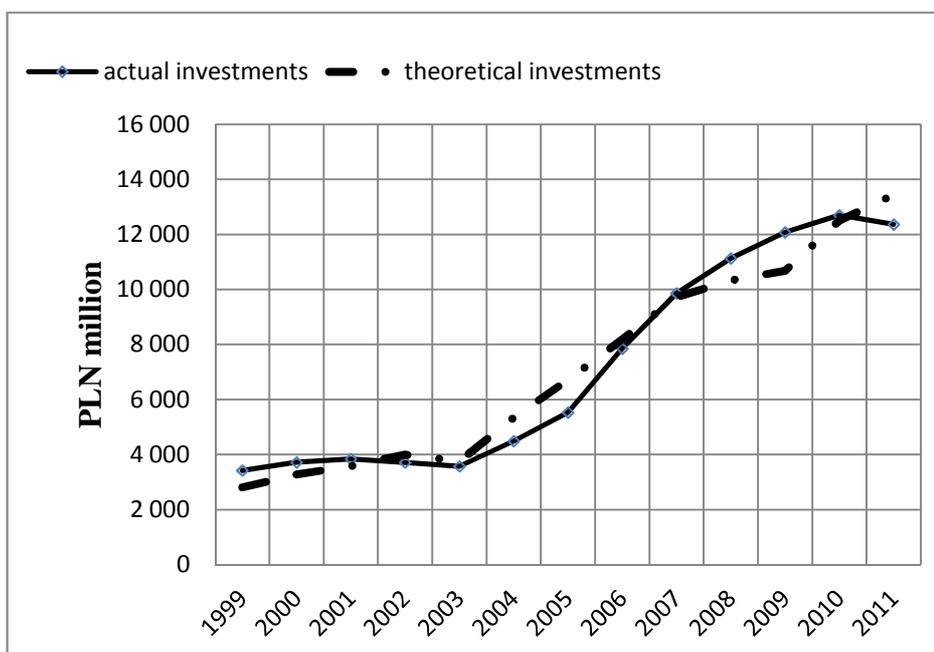
**Figure 1.** Local government sector: the fit of the theoretical model of capital expenditure to actual data

Source: own elaboration.



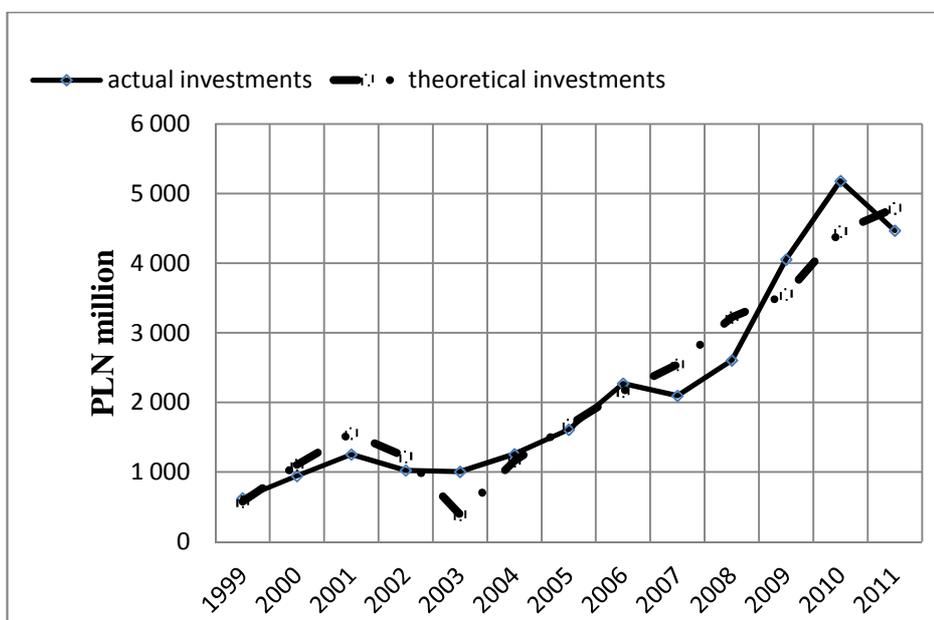
**Figure 2.** Communes: the fit of the theoretical model of capital expenditures to actual data

Source: own elaboration.



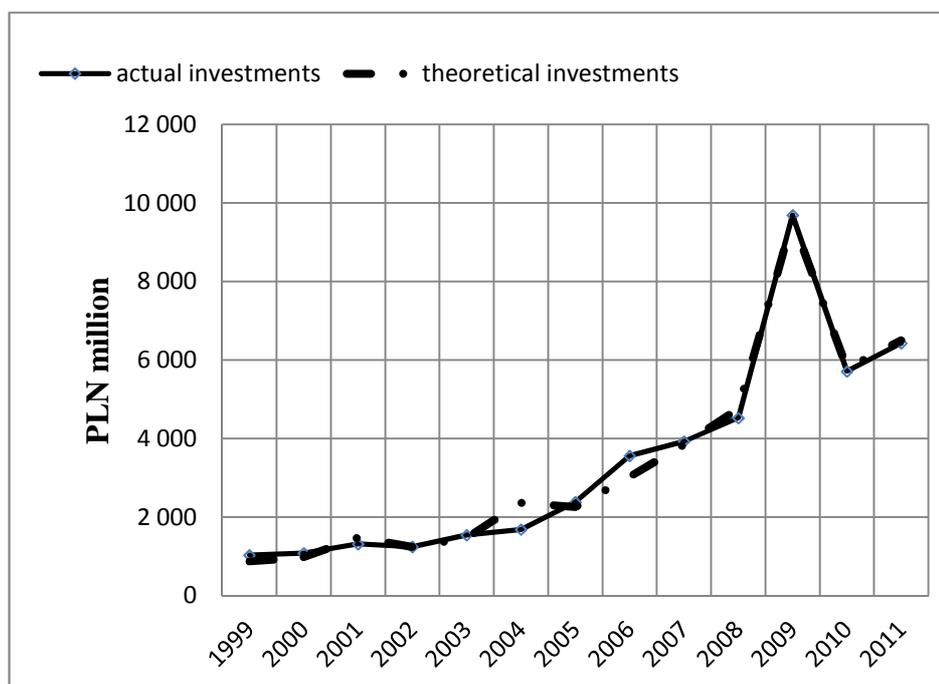
**Figure 3.** CwPR (cities with *powiat* rights): the fit of the theoretical model of capital expenditure to actual data

Source: own elaboration.



**Figure 4.** Districts: the fit of the theoretical model of capital expenditure to actual data

Source: own elaboration.



**Figure 5.** Voivodeships: the fit of the theoretical model of capital expenditure to actual data\*

\*The single rapid increase in specific grants observed in 2009 with respect to voivodeships - by ca. PLN 7.5 billion relative to the previous year - was an effect of the inclusion of development grants in voivodeship budget revenue, transferred directly to voivodeships' accounts. The voivodeship government is not only the beneficiary, but also the institution supervising regional operational programmes and acting as intermediary in some national operational programmes. In every case the funds were transferred in the form of grants and constituted voivodeship budget revenue. This solution was changed in 2010.

Source: own elaboration.

To sum up, it was found that, with one exception, there was a relationship between the increase in specific grants and capital expenditure and between the increase of own revenue and capital expenditure. In terms of the effect on investment, general subsidies proved to be of no statistical significance.

## 5. Conclusions

The purpose of the article was to investigate the effect of the three fundamental statutory categories of revenue on the size of investment made by local government units in Poland. The calculations conducted have shown that investment is generated above all by specific grants, i.e. revenue obtained from the State Budget. This suggests that the structure of revenue, and particularly of the sources of funds supplying the

budgets of local governments, are structured in a way that makes it virtually impossible to conduct any investment process without financial support from the state. This is especially noticeable on the basic level (communes, including CwPR) and on the voivodeship level. The number of tasks imposed on local government units, the costs of their execution and the low output of many of the sources of own revenue lead to a situation where the decision about the projects to be implemented in the territory of a particular local government unit is beyond its control and rests with the fund provider, that is, the state government.

The results of the research provide a reason to call for a reform of the revenue system for local government units in Poland, aimed at increasing their own revenue. Of course, it would be unrealistic to expect that current revenue, accounting for a great proportion of the revenues of LGUs [Sekuła 2010a, p. 253], will be sufficient to ensure solid foundations for the investment policy [Dafflon, Beer-Tóth 2009, p. 309]. Specific grants should still be present in the financial systems of local government, but only as a source of supplementary revenue.

In a situation where the investment process is entirely dependent on the funds from the State Budget, LGUs are unable to conduct their independent development policies, particularly in view of the fact that, as proved by simulations, with the introduction of a new method for determining the units' capabilities for debt repayment, many of them will not be able to finance their investment using borrowed funds [Sekuła 2010c, p. 317].

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## **CZY RODZAJ ŹRÓDŁA JEST ISTOTNY?**

### **GENEROWANIE WYDATKÓW INWESTYCYJNYCH PRZEZ RÓŻNE TYPY DOCHODÓW JEDNOSTEK SAMORZĄDU TERYTORIALNEGO**

**Streszczenie:** Celem artykułu było zbadanie wpływu trzech obligatoryjnych grup dochodów samorządu terytorialnego w Polsce, tj. dochodów własnych, subwencji ogólnych i dotacji celowych na wielkość wydatków inwestycyjnych jednostek samorządowych. Zakres podmiotowy badania obejmuje podsektor samorządowy w całości, a także cztery grupy, na który został podzielony zgodnie z klasyfikacją statystyczną, tzn. gminy (z wyłączeniem miast na prawach powiatu), miasta na prawach powiatu, powiaty (tzw. ziemskie) i województwa samorządowe. Zakres czasowy obejmuje lata 1999-2011, a zakres przestrzenny obszar całego kraju. Badania dowiodły, że istnieje związek między przyrostem dotacji celowych i wydatków inwestycyjnych oraz, analogicznie, między dochodami własnymi a wydatkami inwestycyjnymi. Dochody, które w największym stopniu przełożyły się na inwestycje to, uogólniając, dotacje celowe.

**Słowa kluczowe:** wydatki inwestycyjne, dochody samorządu terytorialnego, dotacje celowe.