

ASSESSMENT OF THE INVESTMENT CAPABILITIES OF POLISH LOCAL COMMUNAL GOVERNMENTS IN THE YEARS 2007–2010

Danuta Kołodziejczyk

Institute of Agricultural and Food Economics – National Research Institute
in Warsaw

Abstract. On the basis of the data of the Regional Data Bank and the indicators of the Ministry of Finance, an attempt was made to evaluate the investment capabilities of local communal governments. An analysis was performed on several budgetary and non-budgetary indicators evaluating communes' investment capabilities with regard to investment. The main research question is how the economic slowdown is influencing the investment potential of local communal governments in Poland. The results of the presented research indicate communes' significant resistance to negative macroeconomic trends, as well as maintenance of the unhindered pace of the implemented investments.

Key words: local communal government, investment potential, operating surplus, investment-related expenditures, self-financing.

INTRODUCTION

For the last few years, local communal governments have been undertaking more or less intensive investment actions in the field of infrastructure. Unfortunately, the investment capabilities of the communes are limited, on the one hand by their income potential, and on the other by current expenditures. Thus, many communes lack their own resources, which would enable them to undertake investment actions, and acquiring them from non-budgetary sources (mainly credits) is impeded due to their inability to meet the acquisition requirements (i.a. the shortage of own resources).

Adres do korespondencji – Corresponding author: Danuta Kołodziejczyk, Zakład Polityki Społecznej i Regionalnej, Instytut Ekonomiki Rolnictwa i Gospodarki Żywnościowej PIB, ul. Świętokrzyska 20, 00-002 Warszawa, e-mail: danuta.kolodziejczyk@ierigz.waw.pl

The present and potential investment financing by local communal governments may be performed using:

- own resources, i.e. income from sources granted fully or partly for the communes' disposal pursuant to legal regulations. This is local income, income from the commune's property and from the commune's share in PIT and CIT;
- subsidiary income, i.e. complementary income granted to communes from the State budget (subsidies and subventions) and resources obtained from internal sources
 - as non-repayable foreign funds;
- repayable sources of investment financing (loans, credits and bonds);
- revenues from the privatisation of local government assets and budget surplus,
- new forms of investment financing, such as leases, outsourcing and public-private partnerships.

The aim of this paper is an assessment of the investment capabilities of local communal governments in Poland in the years 2007–2010, with particular attention to rural areas¹. The current analysis of local communal governments' financial situation led to the formulation of the following hypotheses:

1. In the long term, the investment capability of local communal governments is determined by their own financial potential; the remaining investment financing sources are in correlation with their own resources.
2. The budgetary capabilities of financing investments in communes is diminishing because the share of current expenditures in total expenditures is increasing.

Many indicators of communes' investment capability have been described in the literature on the subject [i.a. Dylewski 2010; Jastrzębska 2005; Zawora 2010]. This paper serves to evaluate the investment capabilities of communes within the framework of both budgetary and non-budgetary financing resources. This paper uses the statistical data of the Regional Data Bank of GUS (the Central Statistical Office) and the statement of the Ministry of Finance entitled "Indicators for the Assessment of the Financial Situation of Local Government Units in the years 2007–2009".

BUDGETARY RESOURCES FOR FINANCING INVESTMENTS IN LOCAL COMMUNAL GOVERNMENTS

Under the present legal conditions, local communal governments have many instruments facilitating, from a formal point of view, the management of active investment programs. These are instruments involving both income (e.g. increasing own income) and expenditure (e.g. limiting current expenditures). The following indicators were used for the assessment of the budgetary capabilities of local communal governments:

- the share of own income in total income,
- the share of EU funds in total income,

¹ The category of rural areas encompasses urban-rural (560) and rural (1568) Communes. Urban-rural areas are analysed in line with towns, with an assessment of the need to include both sustainable and spatial socio-economic connections.

- the share of disposable resources in total income (own investment potential),
- the share of operating surplus and property income in property expenditures (self-financing).

Own income and EU funds

Own income is the main decisive factor concerning the possibilities of financing an investment in a commune, as they are mostly dependent on the commune itself (i.e. through local taxes). In 2007–2010 the financial economy of local communal governments was managed under the conditions of considerable fluctuations in the own income share of total income. Significant growth of own income in all types of communes took place only in 2008. This resulted mainly from changes in the income taxation system, which were a sort of subvention dependent on economic cycles². This change did not increase the income independence of the communes – local government authorities still had no control over most of their income. One may observe that the growth rate in the inflow of income from CIT and PIT to the communes' budgets is higher than the total income growth rate. This indicates that the level of communes' income is largely decided by the lawmakers.

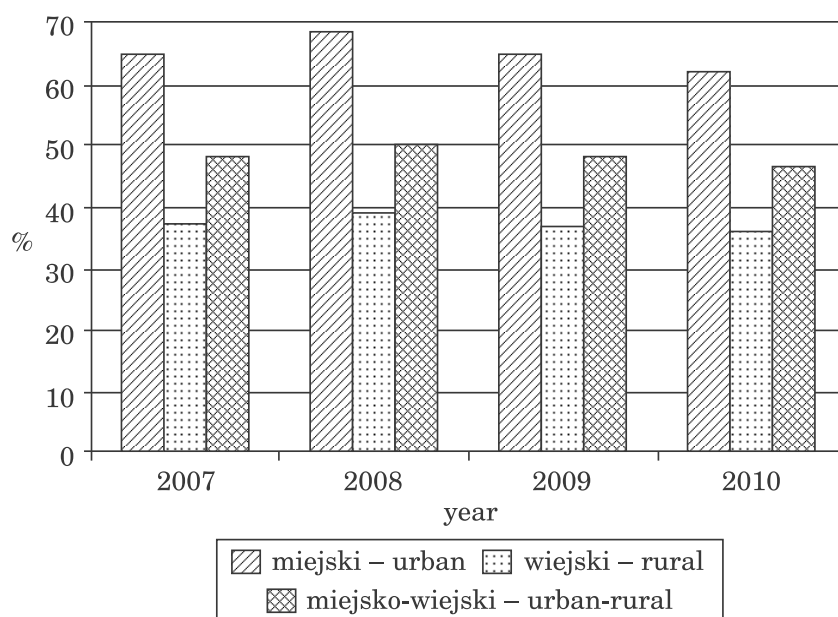


Fig. 1. The share of own income in total income by commune type

Rys.1. Udział dochodów własnych w dochodach ogółem według rodzajów gmin

The own-income share in total income is diverse and is related to a commune's location, its economic base and demographic situation. In 2007–2010 there was a visible gap between different types of commune as regards own income. It has also been observed that a higher decline was recorded in communes with the lowest level of economic development. The decline in the proportion of own income in total income is alarming, as it brings uncertainty concerning future investments in communes.

² After 2003, the share of communes in PIT rose from 27.6% to 30.2%, and CIT from 5% to 6.7% (Journal of Laws No. 203 item 1966).

On analysing the differences in commune incomes, measured using the variation coefficient, it appears that they are much larger with regard to own income (ca. 50%) and local income (ca. 60%) than total income (ca. 40%). Such a situation mainly results from the functioning of the equalisation mechanism (equalisation subvention) on budget income.

In the recent years, a growing importance of EU funds in financing commune investments has been observed. In the period studied, they made up over 3.5% of commune budgets and 90% of them were intended for investments. We have observed a significant growth in these funds, but also a growth in the number of communes benefitting from them. The assumption behind acquiring these funds was the equalisation of disparities between regions at the level of socio-economic development. However, it turns out (similar to earmarked subsidies) that larger sums from these funds are granted to wealthier communes. This is confirmed by the higher correlation coefficient between the amount of total income per capita and the amount of EU funds

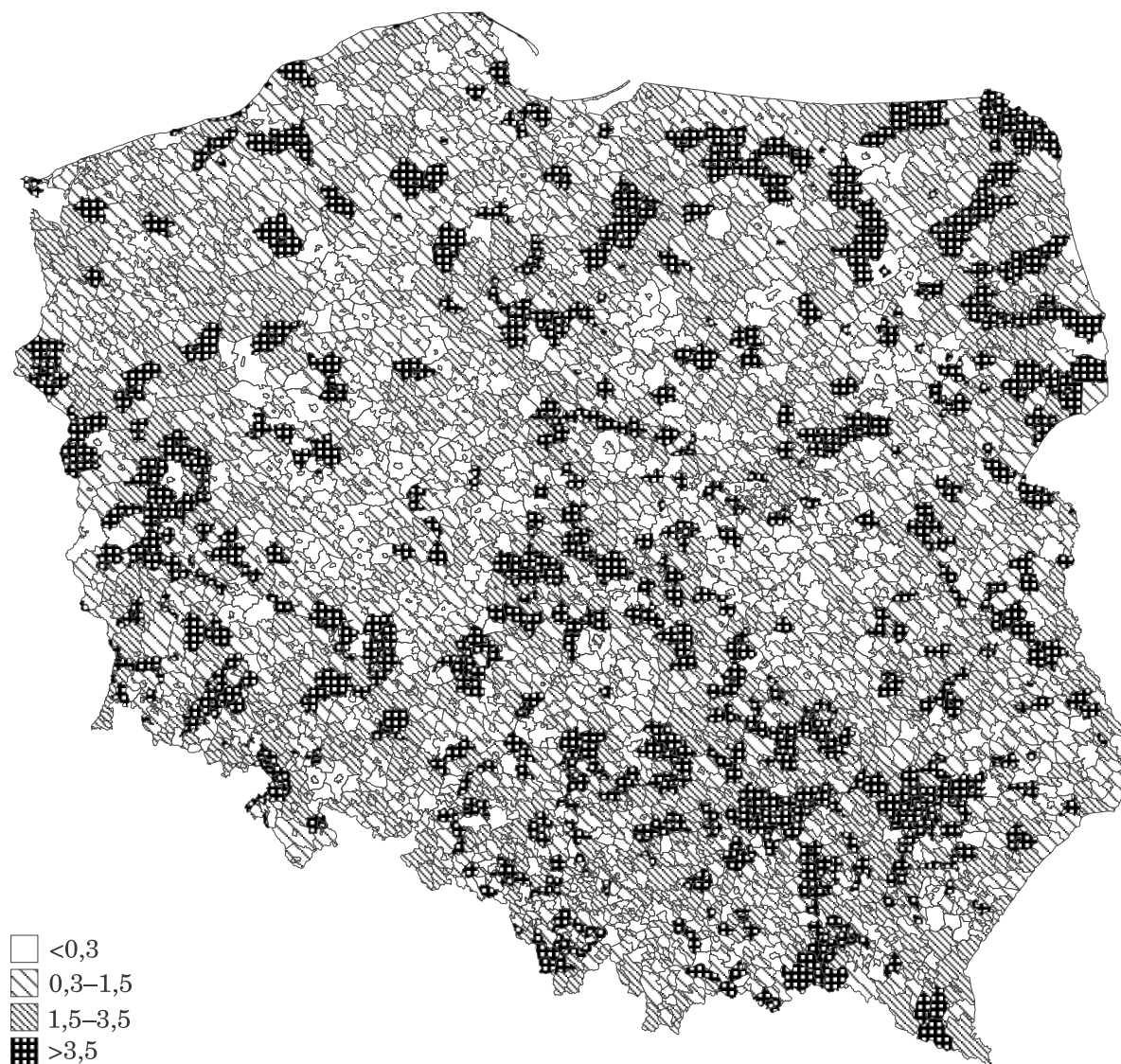


Fig. 2. EU funds' share of the total income of local communal governments in 2007–2010 (%)
Rys 2. Udział środków unijnych w dochodach ogółem samorządów gminnych w latach 2007–2010

obtained per capita. Pearson's correlation coefficient with a significance level reached 0.301. Consequently, EU funds have had an impact on decreasing the gap between regions, but it does not affect communes very much, and even encourages increasing the differences in their investment capabilities.

It must be emphasised that the major part of EU funds acquired by communes can be highly diverse, depending on the type of commune, employment level and the amount of own resources. The highest ranked in this regard are the communes of Dolnośląskie Lubuskie, Podlaskie, and Świętokrzyskie voivodeships, whilst the lowest are Wielkopolskie and Pomorskie voivodeships. Communes with a small population are characterised by high activity in acquiring EU funds. The least EU funds per capita were given to communes with an average population, and this concerned all types of communes.

Synthetic measures for the assessment of investment potential

Two synthetic measures for commune investment potential assessment were used in this paper. The first one is the relationship between disposable resources and total income – own potential investment [Dylewski 2010] – and the second is the ratio of operating surplus to total income [Indicators for the assessment 2010]. The structure of both indicators is based upon the budgetary resources of local communal governments, after the current (obligatory) expenditures have been dealt with. This means that disposable resources are higher than the operating surplus, similar to the total income being higher than current income³. According to Jastrzębska [Jastrzębska 2005, p. 97 et seq.], both indicators are of importance in establishing the investment potential of local government units over a long-term period, as well as in the assessment of their credit standing.

The amount of disposable resources informs local authorities about the volume of income which can be spent on financing investments or discharging liabilities. The correlations between disposable resources and total income are given in the formula below:

$$WIP = \frac{\sum_{t=1}^n (DB_t - WB_t)}{\sum_{t=1}^n DB_t} \times 100$$

where:

WIP – the investment potential indicator of local government unit development for a period of n years

DB_t – total budget income in year t

WB_t – total budget expenditure in year t

³ Current income, non-property income.

The higher level of this correlation, the more profitable the situation, whilst the level may only be higher if income increases or if current expenditures decrease. In analysing the own investment potential of communes in 2007–2010, it may be claimed that:

- all types of commune recorded a considerable decline in own investment potential, whereas this potential was much higher in the case of urban than in urban-rural communes, as well as in the communes with larger populations. This means that local communal governments were able to devote increasingly more of their income to investments and liability discharge;
- rural and urban-rural communes had greater investment capabilities than urban communes;
- a considerable decline in investment potential took place in 2009, while in 2010 a significant growth was recorded (only in urban communes) compared to 2009.

Table 1. The investment potential of local communal governments (%)

Tabela 1. Potencjał inwestycyjny samorządów gminnych (%)

Year Wyszczególnienie	Investment potential – Potencjał inwestycyjny			
	2007	2008	2009	2010
Urban-rural communes Gminy miejsko-wiejskie	17.3	17.6	15.8	15.7
< 5	17.5	17.1	17.3	17.0
5-7.5	15.6	16.5	16.5	16.1
7.5-15	16.6	17.0	16.1	15.9
15-30	18.2	18.3	14.7	14.7
> 30	21.7	20.6	15.7	15.5
Rural communes Gminy wiejskie	17.7	18.2	17.1	16.5
< 2.5	13.8	16.0	16.2	15.5
2.5-5	15.8	17.1	16.2	15.4
5-10	18.0	17.9	17.2	16.6
10-15	20.8	20.7	18.3	17.6
> 15	24.2	24.2	21.0	20.6
Urban communes* Gminy miejskie*	20.7	19.5	14.0	16.3
< 10	21.0	18.7	11.8	18.4
10-20	17.1	18.0	13.8	15.0
20-50	22.2	20.8	15.1	17.1
50-100	20.4	19.3	13.4	14.7
> 100	23.3	20.1	14.7	15.5
Poland / Polska	18.0	18.2	16.4	16.2

* urban communes including cities with district rights

* gminy miejskie łącznie z miastami na prawach powiatu

Source: Regional Data Bank – own evaluation

Źródło: Bank Danych Regionalnych GUS – obliczenia własne

On account of the large sum of disposable resources being destined for investment-related expenditures, further analysis features the correlation between the communes' investment-related expenditures and their disposable resources. There are three possible scenarios: (1) investment value exceeds disposable resources – part of the expenditures has to be covered with revenues; (2) investment value is lower than the value of disposable resources and total investment is covered using these resources; (3) the correlation amounts to a level of 100%.

Table 2. Investment expenditures in relation to disposable resources in local communal governments in 2007–2010 (%)

Tabela 2. Wydatki inwestycyjne w relacji do wolnych środków w samorządach gminnych w latach 2007–2010 (%)

Year Wyszczególnienie	2007	2008	2009	2010
Urban-rural communes Gminy miejsko-wiejskie	108.2	105.1	188.2	299.8
< 5	81.5	107.9	143.8	217.0
5-7.5	80.2	105.3	185.5	608.9
7.5-15	130.0	95.6	203.7	227.4
15-30	102.0	114.8	173.6	254.0
> 30	91.1	117.1	201.3	139.0
Rural communes Gminy wiejskie	152.3	99.5	181.1	361.8
< 2.5	91.0	84.3	250.0	592.4
2.5-5	90.2	90.5	131.8	410.7
5-10	215.5	101.4	222.0	362.3
10-15	105.3	119.8	160.8	238.9
> 15	101.4	105.3	130.6	185.7
Urban communes* Gminy miejskie*	96.5	104.2	200.8	173.2
< 10	97.8	115.5	270.0	167.8
10-20	110.7	85.4	231.7	147.4
20-50	89.1	111.6	162.0	190.9
50-100	94.0	95.0	154.1	155.4
> 100	92.1	114.3	212.9	201.1
Poland / Polska	134.9	101.4	185.2	323.7

* urban communes including cities with district rights

* gminy miejskie łącznie z miastami na prawach powiatu

Source: See tab.1

Źródło: Jak w tabeli 1

When analysing the ratio of investment expenditures to disposable resources in the researched communes (tab. 2), one may observe that the value of this indicator grows with every step, especially in urban-rural and rural communes (except 2008 for rural communes). This results in a larger number of communes using their revenues to finance investments. For example, in 2007 the number of such communes amounted to ca. 36%, in 2008 – 45%, 2009 – 74% and in 2010 – 87%. Until 2009, this percentage for rural and urban-rural communes was slightly lower than in the case of urban communes. The situation was reversed in 2010. This can be explained by the growth in investment expenditures as a share of total expenditures (fig. 2), in parallel with the decline in own income in rural and urban-rural areas (fig. 1).

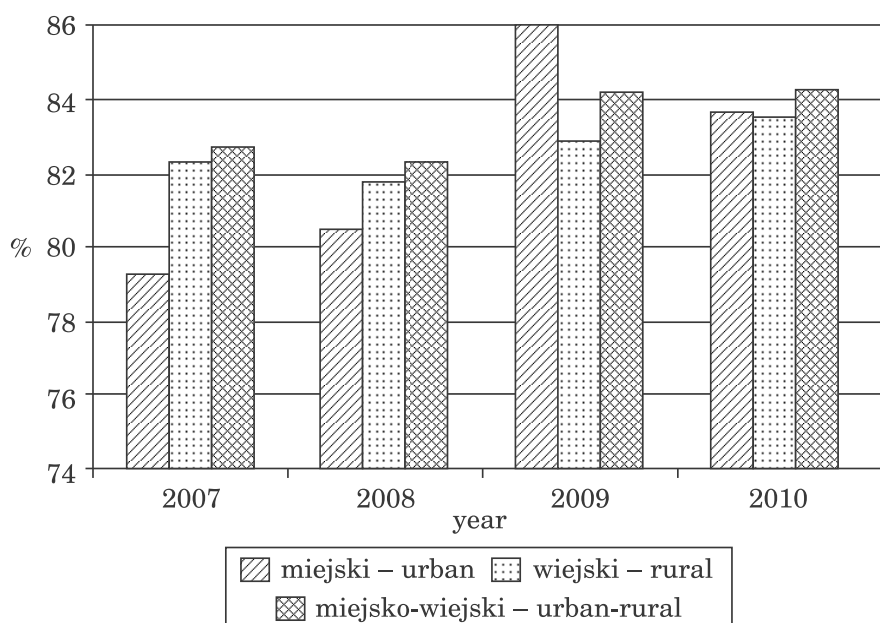


Fig. 3. The share of current expense in total expense by commune type
Rys. 3. Udział wydatków bieżących w wydatkach ogółem gmin

The investment capabilities analysis also made use of an indicator: the operating surplus share of total income. This indicates the capabilities of communes to discharge liabilities and finance investment-related expenditures.

Higher values for this indicator translate into better capabilities for financing investments without damage to property or the need for liability. According to P. Swianiewicz [Swianiewicz 2007], operating surplus is defined as a synthetic measure of a commune's financial situation. In 2007–2010 the average operating surplus share of total income was positive for all types of communes, with a clear downward trend. Its fall was the result of expenditure growth being faster than current income. The decrease in operating surpluses in individual communes types in 2008, as compared to 2009, was related to the improvement in the financial situation of local communal governments. In analysing the respective units, the operating surplus in the researched years was claimed to have reached ca. 92%. If a given commune does not have an operating surplus, it is forced to use internal sources for financing current needs.

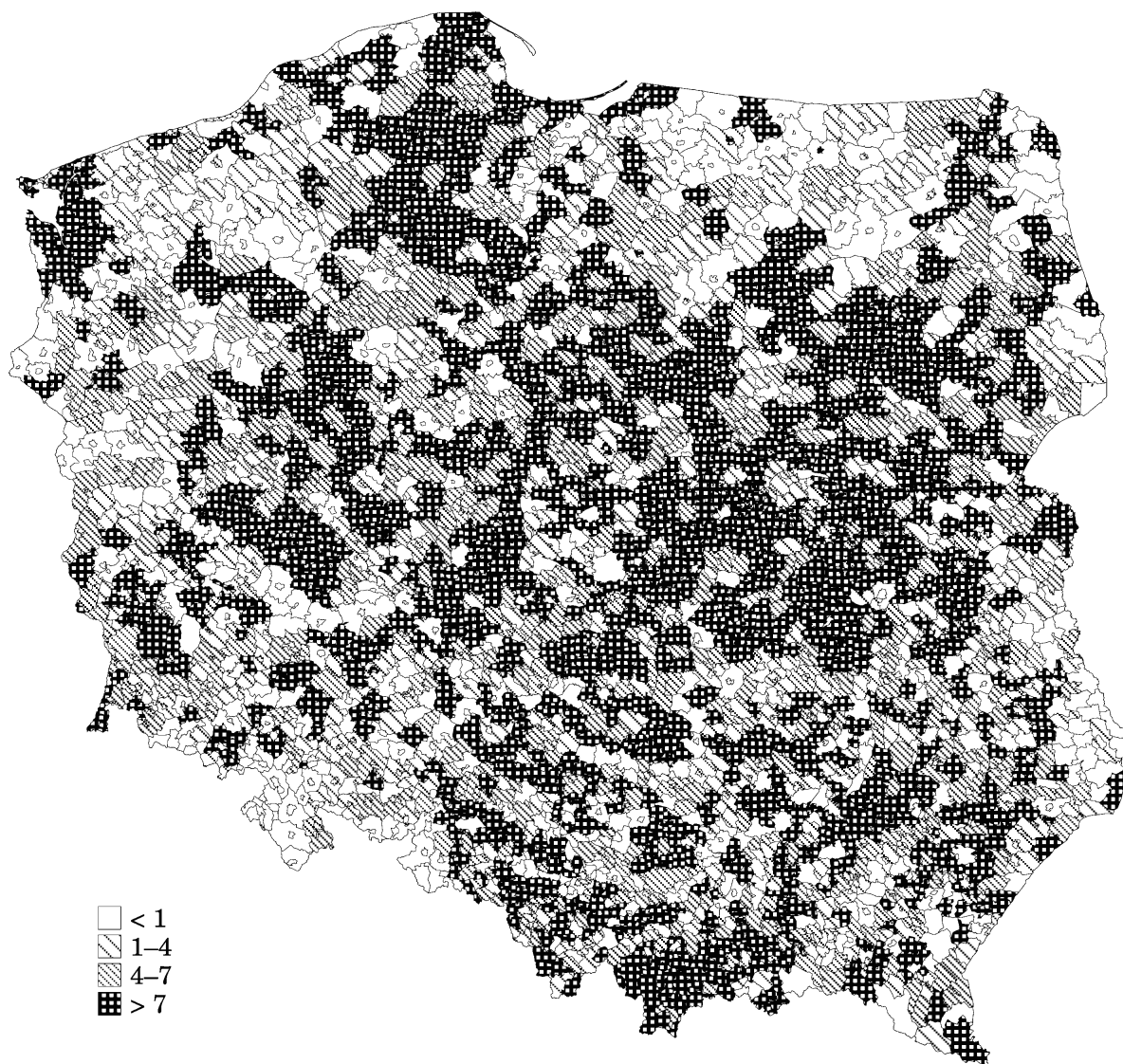


Fig. 4. Operating surpluses' share in local communal government income in 2010 (%)
 Rys. 4. Udział nadwyżki operacyjnej w dochodach samorządów gminnych w 2010 r. (%)

It must be emphasised that the size operating surplus is very varied depend on the type commune, employment level and the amount of own resources. The highest ranked in this regard were the communes of Pomorskie, Wielkopolskie and Śląskie, while the lowest were Warmia-Mazury and Zachodniopomorskie.

Self-financing

Financial independence is defined by the coverage of commune budgets and their competency in administering income, as well as managing acquired resources. In general, communes are more independent in terms of expenditures in the implementation of own tasks rather than in generating income. The 10% growth in current expenditures in local communal governments within the researched period influenced their self-financing rate. The self-financing rate governs the extent to which

a local government unit can finance investments with its own resources; in other words, its self-financing capability⁴.

$$W_s = \frac{N_o + D_m}{W_m}$$

W_s – self-financing rate

D_m – property income

N_o – operating surplus

W_m – property expenditures

In 2007–2010 a decline in self-financing capabilities was recorded for all types of commune. This particularly involved rural communes (by 42%). It was caused by an increase in the proportion of property expenditure growth in total expenditure.

Table 3. Total expenditure and assets by commune type

Tabela 3. Wydatki ogółem i majątkowe w poszczególnych rodzajach gmin

Type commune Rodzaj gminy	Expenditure per capita Wydatki na 1 mieszkańca							
	total ogółem				assets majątkowe			
	2007	2008	2009	2010	2007	2008	2009	2010
Urban-rural communes Miejsko-wiejskie	2196	2456	2764	3189	377	456	613	812
Rural communes Wiejskie	2246	2513	2822	3336	401	477	636	880
Urban communes Miejskie	2500	2783	3051	3390	504	605	688	819
Poland Polska	2265	2533	2836	3308	408	488	637	856

Source: See tab.1

Źródło: Jak w tab. 1

In general, it can be stated that within the researched period each commune type recorded a growing number of incidences of communes having a low self-financing rate (up to 80%) (2.5 times for rural communes, 3 times for urban-rural and 4.3 times for urban), while the number of communes with a self-financing rate above 100% fell (3 times for rural, 3.5 times for urban-rural and 4.5 times for urban communes). In 2010 only 14.1% of the total number of urban communes recorded a self-financing rate above 100%; correspondingly for rural communes the rate amounted to 10.8%, and for urban-rural it was 9.0%. The average self-financing rate for all types of commune oscillated around 60–70% (fig. 4).

⁴ Indicators for the assessment of the financial situation concerning local government units in 2007–2009, the Ministry of Finance, Warsaw, p. 8.

Self-financing rates in highly-populated communes were much lower, although the discrepancies between the minimum and maximum rate values is rather small. For instance, among the urban-rural communes, the lowest self-financing rate (−66.2%) was recorded for the Niemcza commune in the Dolnośląskie voivodeship, while the highest (493.4%) was for the Dawno commune in the Zachodniopomorskie voivodeship. Among the rural communes the lowest rate (−192.6%) was recorded in the Mierzęcice commune in the Śląskie voivodeship, whereas the highest (835.9%) was for the Domaszowice commune in the Opolskie voivodeship, and among the urban communes the lowest rate (−59.5%) was in the Sławno commune in the Zachodniopomorskie voivodeship, while the highest (278.6%) was in the Jarosław commune in the Podkarpackie voivodeship.

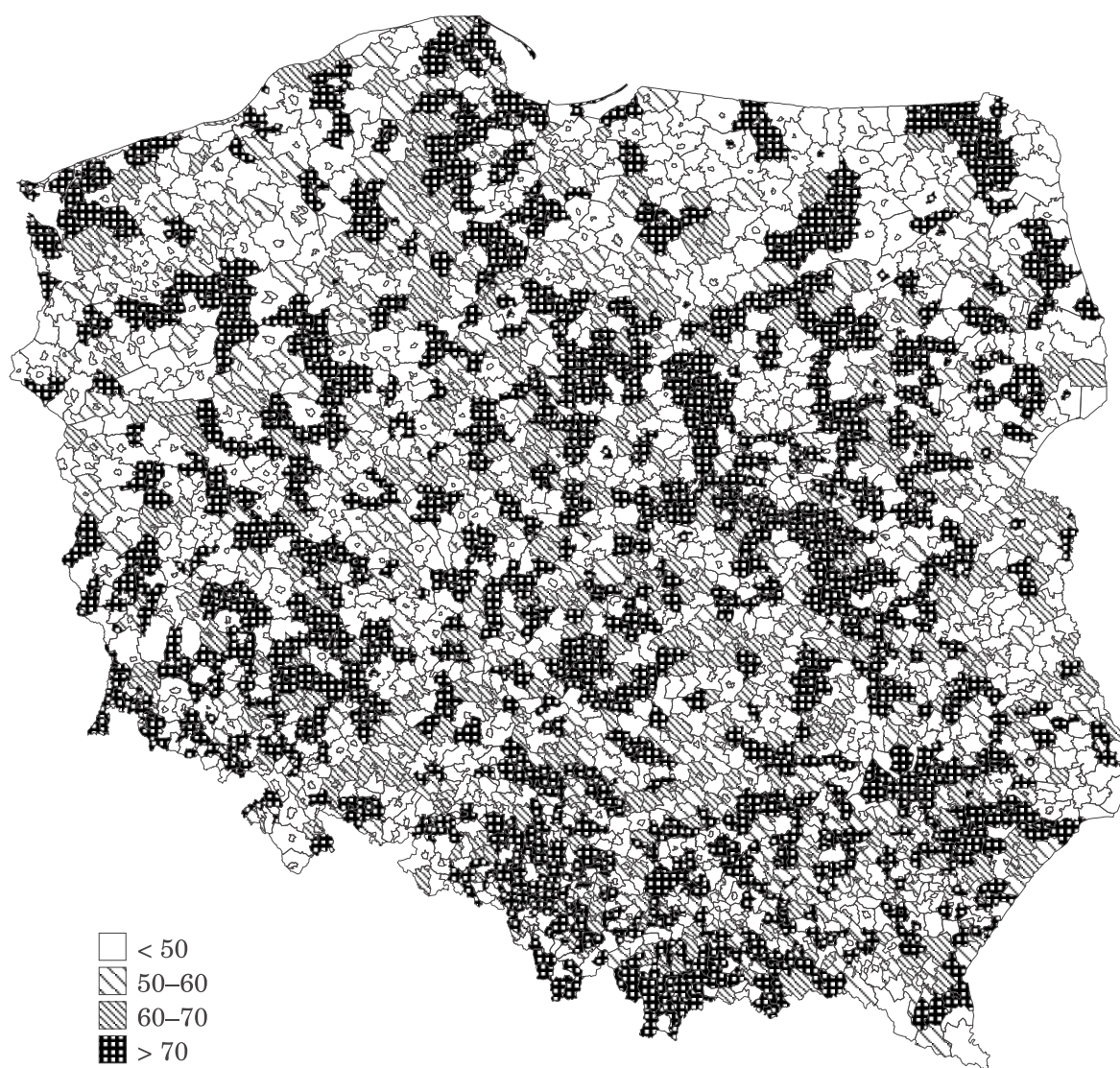


Fig. 5. The self-financing rate of local communal governments in 2010 (%)

Rys. 5. Wskaźnik samofinansowania samorządów gminnych w 2010 r. (%)

REPAYABLE FUNDS FOR FINANCING INVESTMENTS

Poor capabilities for investment self-financing (which are indicated by the value of the above-mentioned indicator) force local communal governments to utilise repayable funds, i.e. loans, credits and municipal bonds. Acquiring these assets, however, is subject to statutory limitations⁵, equal for all local governments. As of 2014, an individual limit of absorbing these assets will come to force, which will be conditioned by the financial situation of a given commune.

Repayable funds are playing an increasingly significant role in financing investments in communes. According to Swianiewicz [2011, p. 192, 232], loans and credits in 2009 financed ca. 20% of investments in communes, and ca. 80% of communes utilised these funds. The increase in the share of repayable funds of financing investments does not translate into a growing number of communes with

Table 4. The share of total liabilities in local communal government income (%)
Tabela 4. Udział zobowiązań ogółem w dochodach samorządów gminnych (%)

Year Wyszczególnienie	2007	2008	2009
Urban-rural communes Gminy miejsko-wiejskie			
Average – Średnia	19.5	18.7	23.9
Min.	0.0	0.0	0.0
Max.	64.0	62.1	78.5
Rural communes Gminy wiejskie			
Average – Średnia	14.4	13.8	17.2
Min.	0.0	0.0	0.0
Max.	64.7	88.8	83.6
Urban communes* Gminy miejskie*			
Average – Średnia	21.2	21.2	27.9
Min.	1.2	2.1	1.8
Max.	52.2	50.6	59.2

* urban communes including cities with district rights

* gminy miejskie łącznie z miastami na prawach powiatu

Source: The indicators for the assessment of the financial situation of local government units in 2007–2009, the Ministry of Finance, Warsaw 2010

Źródło: Wskaźniki do oceny sytuacji finansowej jednostek samorządu terytorialnego w latach 2007–2010, Ministerstwo Finansów, Warszawa 2010

⁵ The Act on Bonds (Journal of Laws, No. 120 item 1200). Applicable until 2013, Commune liability limits, the Act of 30.06.2005 on public finances, Journal of Laws, No. 249 item 2104 as amended, arts 169 and 170.

a public debt above the limit of 60% of total income. In 2009, this rate was exceeded only by 7 rural, 5 urban-rural and 6 urban communes. This means that the share of communes with a growing public debt is not as significant as it would be suggested from the correlation between these funds and public income. On the other hand, there are a growing number of communes with liabilities of over 40% and a decreasing number with < 20% liabilities.

On the analysis of the total liability rate within total income and the total liability rate within the investment expenditures of communes, it may be seen that the first correlation oscillates between 17.4% and 18.7%, and the other between 96.1% and 86.2%. The latter tells us that the taking of credit by communes is mainly the result of increasing investments, and not using these resources for the purpose of current expenditures. In other words, it is the result of the implementation of the commune's development strategy. It is also confirmed by the high correlation coefficient (0.38) between the liability percentage and the investment expenditure rate in communes.

SUMMARY AND CONCLUSIONS

An analysis of the financial situation of local communal governments indicates that:

- 1) the capabilities for financing investments are diverse; they are mainly influenced by the level of available public income, especially own income;
- 2) based own income mainly on income from CIT and PIT facilitates the deepening of the disproportions between local governments in the level of their own income, especially in rural areas;
- 3) increasingly more funds are being devoted to investment activities; this is reflected in the change in the proportion of investment expenditures to disposable resources;
- 4) there is a growing trend towards co-funding planned investments with EU funds, currently covering ca. 20% of implemented investments;
- 5) the decrease in self-financing capability is forcing communes to increase their debts, which until 2010 could be deemed as safe liabilities.

Generally, it can be stated that the period up to the year 2010 presents quite an optimistic picture of financing investments in many local communal governments. However, an alarming issue is that these processes have not progressed equally in location; there is a tendency to concentrate them in cities and stronger rural units. Thus there is a need to trigger greater activity in the public sector, by using the relevant instruments in order to ensure territorial cohesion. The public sector may serve the distributional function through actions facilitated by EU funds, and maintain territorial cohesion by directing public funds to the proper entities. This would increase the chance of distributing investment expenditures equally, and thus build a sustainable investment potential in previously-neglected areas.

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**OCENA MOŻLIWOŚCI INWESTYCYJNEJ SAMORZĄDÓW GMINNYCH
W POLSCE W LATACH 2007-2010**

Streszczenie. Opierając się na materiałach statystycznych Banku Danych Regionalnych oraz wskaźnikach Ministerstwa Finansów, podjęto próbę oceny możliwości inwestycyjnej samorządów gminnych w latach 2007–2010. Dokonano analizy kilku wskaźników budżetowych i pozabudżetowych oceniających możliwości finansowe gmin w zakresie inwestycji. Starano się znaleźć odpowiedź na pytanie, jak spowolnienie gospodarcze wpływa na potencjał inwestycyjny samorządów gminnych w Polsce. Wyniki badań wskazują na dużą oporność gmin na negatywne tendencje makroekonomiczne i zachowanie niezmiennego tempa realizowanych inwestycji.

Słowa kluczowe: samorząd gminny, potencjał inwestycyjny, nadwyżka operacyjna, wydatki inwestycyjne, samofinansowanie.

Zaakceptowano do druku – Accepted for print: 10.09.2012