Mariola Grzebyk[1]

SOCIOECONOMIC DEVELOPMENT OF PODKARPACKIE VOIVODSHIP IN COMPARISON WITH OTHERS VOIVODSHIPS IN POLAND: A COMPARATIVE ANALYSIS

The aim of the article is to present the level of socioeconomic development of Podkarpackie voivodship in comparison to remaining ones in Poland with usage of the territorial commune development ratio. The research results on the obtained level of development by the voivodships constitute synthetic assessments of the place of this voivodship in their general list and define the distance from the best one in a given group. The achieved analysis results provide knowledge on the changes to be used by regional governments to quicken the constant socioeconomic development.
Keywords: socioeconomic development; level of development; territorial community development index; voivodship; Poland.

Маріола Гжебик

СОЦІАЛЬНО-ЕКОНОМІЧНЕ СТАНОВИЩЕ ПІДКАРПАТСЬКОГО ВОЄВОДСТВА НА ТЛІ ВОЄВОДСТВ ПОЛЬЩІ: ПОРІВНЯЛЬНИЙ АНАЛІЗ

У статті проаналізовано рівень соціально-економічного розвитку Підкарпатського воєводства в порівнянні з іншими воєводствами в Польщі з використанням індексу розвитку територіальних громад. Отримані результати дослідження надали комплексну оцінку та показали рейтинг воєводства серед інших воєводств Польщі і відобразили відстань, що відділяє його від кращих у групі. Проведений аналіз може стати джерелом інформації про зміни, що відбуваються у становищі воєводства, і окреслить можливі перетворення, які доцільно здійснювати місцевою владою для стимулювання подальшого соціально-економічного розвитку.
Ключові слова: соціально-економічний розвиток; рівень розвитку; індекс розвитку територіальних громад; воєводство; Польща.
Форм. 2. Табл. 5. Літ. 14.

Мариола Гжебик

СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЕ ПОЛОЖЕНИЕ ПОДКАРПАТСКОГО ВОЕВОДСТВА НА ФОНЕ ВОЕВОДСТВ ПОЛЬШИ: СРАВНИТЕЛЬНЫЙ АНАЛИЗ

В статье определен уровень социально-экономического развития Подкарпатского воеводства в сравнении с другими воеводствами в Польше с использованием индекса развития территориальных общин. Полученные результаты исследования дают комплексную оценку и показывают рейтинг воеводства среди других воеводств Польши, а также отражают степень его отличия от лучших в группе. Проведенный анализ может стать источником информации об изменениях, происходящих в положении воеводства, и указывает на возможные преобразования, которые целесообразно осуществлять местными властями для стимулирования дальнейшего социально-экономического развития.
Ключевые слова: социально-экономическое развитие; уровень развития; индекс развития территориальных общин; воеводство; Польша.

Introduction. The present economic and political situation in Europe reveals that supporting regional development is a significant issue (Olak, 2008). After Poland's

---

[1] University of Rzeszow, Poland.

accession to the European Union, certain differences on social and economic levels, both between particular member states and within the countries have occurred. Along with undoubted advantages of regions' integration, some threats were revealed, which particularly concern less predisposed regions. Aiming at achieving cohesion, both within countries and the entire continent, it is significant to counter-act weaker development of particular territories or transferring them in peripheral areas. Accelerating the economic growth of Poland coming from deep transformations gives a possibility to diminish the distance between particular provinces of our country and between them and other regions of the EU.

Podkarpackie voivodship along with other provinces of Eastern Poland constitute a certain problematic area and significant transformations here may improve the socioeconomic situation. The disproportions emerged due to historical reasons must be diminished in these areas more efficiently (Stec, 2011).

Literature review. Socioeconomic development is variously defined in literature. Generally, it means all qualitative and quantitive changes directed at gaining certain aims. These are irreversible changes in the spheres of economic, cultural and social activities as well as social, production and political and systemic relations.

Socioeconomic development requires such actions which will stimulate the development, order and lead it in a proper direction (Delina and Drab, 2010; Dorcak and Delina, 2011; Pridavok and Delina, 2013). Moreover, any proceeded development undertakings require control and assessment, it is necessary to define the obtained effects and verify incurred expenditures (Filip, 2005). Proper assessment shall constitue a reliable source of data on a given country in order to reflect transformations on its territory (Szabo et al., 2013; Mizla and Pudlo, 2012).

Rivalry between particular regions of the country is much more visible and it is worth seeing the position of Podkarpacie in this. The role which is to be played by a region within national economy depends on the level at which the region will find potential in its own resources while using a proper regional policy. Strengthening and creating a competitive region is not a rapid process. Additionally, it is worth emphasizing that a competitive struggle between provinces is a complex issue. In this case, it is not possible to clearly define which measurements may present the existing situation in the best and most full manner. Contrary to economic entities, on which they are standardized (Pukala, 2012), it is only possible to select the most adequate due to the conducted analysis. Authorities are responsible for how internal capital of the region is to be used but the determinants must be efficiently improved for the benefits of entrepreneurship.

Competitiveness of the region has a specific, territory oriented character (Klimovsky, 2008). There are significant relationships between a competitive position of an area and its developmental capabilities. It should be mentioned that entities may lead to achieving the advantage over competitors including better results in particular fields of rivalry. Competitive potential of a region constitutes a certain determinant of developmental capabilities and improves the prosperity of its dwellers.

Definition of the target problem for the analysis. The main aim of the article is an attempt to depict the development level of selected municipal communes in the Podkarpackie voivodship during 2005—2010 with the use of the territorial commune development ratio. The research results on the obtained level of development by the voivod-

ships constitute synthetic assessments on the place of this voivodship in their general set and define the distance between the best in a given field (Kudlacz and Grzebyk, 2002).

The Podkarpackie voivodship has particularly specific determinants influencing the worse economic situation than in other regions. Crossborder location, weak economic efficiency of agriculture and a large number of areas that are legally protected are those problems which negatively influence the level of economic development. Moreover, the region has a great number of rural population, therefore profound expenditures are needed for technical and social infrastructure development. The region of Podkarpacie has significant differentiation due to development of particular poviats. Having this specificity, the region is threatened with unfavourable marginalisation and the achieved results in the spheres of both social and economic ones should improve its position with regard to other locations.

Methodology of the studies. In the research on the level of local development of particular territorial self-government units, various attempts have been made to use quantified approaches. Linear ordering methods are characterised by great usability. Their main aim is to create a particular order of objects: communes, cities, poviats, regions as well as according to a selected criterion for measuring. One of the basic tools for linear ordering is a synthetic measure of the achieved local and regional development being the function that aggregate fractional information which are included in particular attributes (measures) of assessments. Overall assessment relies on the combination of these partial assessments.

The index allows analysing the level of socioeconomic development of particular voivodships and it is known as the territorial commune development ratio. It consists of the following factors (Czyszkiewicz, 2003):

A. Percentage of commune incomes for a given period in comparison to total incomes of the commune gained in the same period (in %).

B. Percentage of investment expenditures in total expenditures incurred by the commune in a given period (in %).

C. Poverty rate (in %). The measure of this factor is the number of commune dwellers obtaining aid from the commune social services.

D. Unemployment rate (in %). The measure of this factor is the number of unemployed commune dwellers registered in a given job agency.

The first two factors inform about the commune's development, the two following — about the burden of this development.

Incomes generated by local economy and investments are the basic determinants of economic development pace. Great percentage of own incomes increases entity's independence and their low value shows the dependence on grants. The number of investments confirms the capability of the voivodship to increase obtained profits. Low investment costs limit the possibilities for further income of resources for the region.

Unemployment and poverty constitute serious problems for voivodships. Allowances for the persons in poor bad material situation are a burden for a region. A great number of the unemployed deprives the region of many budget incomes and limits developmental capabilities.

The territorial community development index is based on the assumption that it is desired to obtain the greatest numbers of the first two factors (A and B) and the lowest numbers of the other two (C and D).

The manner of calculating the territorial community development index is as follows:
- The first two indices are calculated as follows:

$$W = \frac{X - Min}{Max - Min};$$ (1)

- C and D indices as follows:

$$W = \frac{Min - X}{Max - Min},$$ (2)

where X is the exact number of a given factor achieved by a given commune in a given year; Min is the minimum value of a given factor achieved by communes in a given year (this is the value characterising a given commune); Max means the maximum value of a given factor achieved by communities in a given year (it characterized a given community).

The annual partial indices from the first group of factors (A and B) assume the values within the range (0, +1), the indices from the groups C and D assume negative values in the range (0, -1). The summary development index for a particular community within a given year comes from the standard summary of 4 partial indices, the results are included in the range (-2, +2).

The summed numbers are interpreted by the following scheme:
- Oscillating within the boundary of +2 means high level of development.
- Values close to -2 show low level of development.

Level of socioeconomic development of voivodships in Poland – own research results. To analyse the level of Poland's development, it is needed to calculate the partial indicators determined as A, B, C and D. Table 1 includes the values for partial index A for particular voivodships in the scope of own incomes in the years 2010–2012.

Table 1. **Partial index "A" – own incomes,** *own research*

The name of voivodship	2010	2011	2012
Mazowieckie	1.0000	1.0000	1.0000
Dolnoslaskie	0.6598	0.5923	0.7057
Wielkopolskie	0.6002	0.6037	0.5811
Slaskie	0.5894	0.6586	0.6286
Pomorskie	0.5164	0.4872	0.5404
Lodzkie	0.4703	0.4410	0.4744
Malopolskie	0.2692	0.3578	0.3719
Swietokrzyskie	0.1384	0.1864	0.0669
Lubuskie	0.1374	0.1691	0.0945
Kujawsko-pomorskie	0.0686	0.1577	0.2430
Zachodniopomorskie	0.0616	0.1120	0.1503
Opolskie	0.0453	0.1309	0.1634
Lubelskie	0.0293	0.0107	0.1313
Podkarpackie	0.0000	0.0767	0.0604
Warminsko-mazurskie	0.0616	0.0441	0.0361
Podlaskie	0.0469	0.0000	0.0000

In case of the partial index "A", the best value is the result "+1", the worst situation is the result "0". High level of own incomes within the voivodship is the evidence of a good state of regional economy and people's welfare.

Analysing the values of this parameter, we can see that the Podkarpackie voivodship assumes gets one of the last positions among all voivodships. In 2010, it was on the final position. In subsequent years, only Warminsko-mazurskie, Podlaskie and Lubelskie voivodships (in 2011) were lower than our voivodship with regard to this index. The best situation in the entire period belongs to mazowieckie voivodship, having the first position. The result for Podkarpacie may be regarded as unsatisfactory.

Table 2 shows another significant index − the investment expenditure of particular regions. Investments volume influences significantly the development by multiplying incomes.

Table 2. **Partial index "B" – investment expenditures,** *own research*

The name of voivodship	2010	2011	2012
Zachodniopomorskie	1.0000	0.9371	0.6829
Swietokrzyskie	0.7668	0.7042	1.0000
Warminsko-mazurskie	0.5405	0.4248	0.6239
Podlaskie	0.6337	0.7767	0.5176
Malopolskie	0.9490	1.0000	0.5041
Lodzkie	0.7608	0.6687	0.4752
Podkarpackie	0.8178	0.6020	0.4878
Pomorskie	0.7590	0.6789	0.4164
Slaskie	0.8790	0.6153	0.4042
Dolnoslaskie	0.5061	0.4948	0.3942
Wielkopolskie	0.8105	0.7696	0.3715
Lubelskie	0.4864	0.5561	0.3547
Opolskie	0.9075	0.6154	0.3070
Lubuskie	0.8447	0.4524	0.2590
Kujawsko-pomorskie	0.5818	0.2415	0.1459
Mazowieckie	0.0000	0.0000	0.0000

The results allows us conclude that Podkarpackie voivodship has a relatively high position due to the number of investments in comparison to other regions. The voivodship got the fifth position in 2010. In subsequent years, the amount of expenditures visibly decreased, however, Podkarpacie was still in the middle of the rank. Unlike with the first studied parameter, Mazowieckie voivodship got the final position for 3 subsequent years. It may be the result of a great budget of the region in which significant investment expenditures may seem to be relatively low in the synthetic analysis (Filip, 2006).

Another factor in the study was the unemployment rate in the regions. This unfavourable phenomenon for economy, hinders significantly economic development. Table 3 presents the obtained results on this factor.

The best situation is when the value of this index equals "0" and it is close to this value. Approximate or equal to "-1" values mean that a region has a significant problem with the lack of employment.

In 2010−2012, Wielkopolskie voivodship got the best results. Each year, the lowest result was obtained by warminsko-mazurskie voivodship. Podkarpackie voivodship, in the analysed period, reached the values better than those of Kujawsko-pomorskie, Zachodniopomorskie and Warminsko-mazurskie voivodships. Similar intensity of this phenomenon was observed for Swietokrzyskie and Lubelskie voivodships. The region may be recognised as burdened with the problem of unemployment.

Table 3. **Partial index "C" – the rate of unemployment,** *own research*

The name of voivodship	2010	2011	2012
Warminsko-mazurskie	-1.0000	-1.0000	-1.0000
Zachodniopomorskie	-0.7963	-0.7658	-0.7304
Kujawsko-pomorskie	-0.7222	-0.7117	-0.7217
Podkarpackie	-0.5741	-0.5766	-0.5391
Swietokrzyskie	-0.5556	-0.5496	-0.5391
Lubuskie	-0.5833	-0.5676	-0.5304
Podlaskie	-0.4259	-0.4505	-0.4261
Opolskie	-0.4074	-0.3784	-0.4000
Lubelskie	-0.3611	-0.3694	-0.3826
Lodzkie	-0.2778	-0.3423	-0.3652
Dolnoslaskie	-0.3611	-0.2973	-0.3217
Pomorskie	-0.2870	-0.3063	-0.3130
Malopolskie	-0.1111	-0.1261	-0.1391
Slaskie	-0.0740	-0.0991	-0.1130
Mazowieckie	-0.0463	-0.0631	-0.0783
Wielkopolskie	0.0000	0.0000	0.0000

The final factor to be considered is the poverty rate. This is the second index causing the deterioration of the situation in the region. Table 4 presents this index in the studied period for particular voivodships.

Table 4. **Partial index "D" – poverty rate,** *own research*

The name of voivodship	2010	2011	2012
Warminsko-mazurskie	-1.0000	-1.0000	-1.0000
Podkarpackie	-0.7209	-0.7000	-0.6914
Kujawsko-pomorskie	-0.6861	-0.7125	-0.6914
Swietokrzyskie	-0.6977	-0.6750	-0.6667
Podlaskie	-0.5233	-0.5875	-0.5432
Zachodniopomorskie	-0.5465	-0.5625	-0.5309
Lubelskie	-0.5116	-0.5500	-0.5185
Lubuskie	-0.5349	-0.5250	-0.4691
Lodzkie	-0.2907	-0.3250	-0.4464
Pomorskie	-0.3837	-0.4250	-0.3951
Wielkopolskie	-0.2674	-0.2750	-0.2592
Mazowieckie	-0.2907	-0.2125	-0.1728
Malopolskie	-0.1511	-0.1750	-0.1605
Dolnoslaskie	-0.1512	-0.1500	-0.0864
Opolskie	-0.0930	-0.1125	-0.0741
Slaskie	0.0000	0.0000	0.0000

The poverty rate year to year is decreasing slightly in case of Podkarpackie voivodship. Moreover, it has one of the highest parameters regarding this phenomenon along with such voivodships as Swietokrzyskie, Kujawsko-pomorskie and Warminsko-mazurskie. The lowest scale of this unfavourable phenomenon belongs to Slaskie voivodship. It is proven by the value that equals "0" in each year of the conducted analysis.

After having summed up the results of partial parameters, Table 5 presents the obtained values for the index of territorial communities development in the studied period.

Podkapackie voivodship, in all analysed years, obtained a negative value of the index. It is worth adding that the regional result is one of the lowest among all studied entities. Only Kujawsko-pomorskie and Warminsko-mazurskie voivodships got

significantly low values in the years 2010–2012. The highest values of the defined index were observed in the voivodships Slaskie, Malopolskie and Wielkopolskie.

Table 5. **Values for the Index of Territorial Communities Development, 2010–2012,** *own research*

The name of voivodship	2010	2011	2012
Lodzkie	0.5705	0.2489	0.4236
Mazowieckie	0.7328	0.7244	0.7489
Malopolskie	1.0069	0.5608	1.0213
Slaskie	1.1307	0.9638	1.3945
Lubelskie	-0.2874	-0.5540	-0.2834
Podkarpackie	-0.6930	-0.7121	-0.3523
Podlaskie	-0.1256	-0.5203	-0.3356
Swietokrzyskie	-0.4106	-0.0381	-0.3721
Lubuskie	-0.5284	-0.6645	-0.0604
Wielkopolskie	1.1023	0.7002	1.1323
Zachodniopomorskie	-0.3442	-0.5334	-0.1111
Dolnoslaskie	0.6423	0.5392	0.8037
Opolskie	0.1604	-0.0530	0.5968
Kujawsko-pomorskie	-1.0982	-1.1206	-0.5883
Pomorskie	0.5245	0.1723	0.5894
Warminsko-mazurskie	-1.5136	-1.3320	-1.4234

The conducted studies confirm that Podkarpackie voivodship has rather unfavourable parameters of socioeconomic development. Exclusively, due to assumed investments, the region seems to be favourable in comparison to the entire country. It may be noticed, however, that in one partial index only the voivodship obtained the lowest result.

Conclusion. The achieved assessment and analysis of Podkarpackie voivodship is essential and should provide the basis source of knowledge on the changes inside it. Moreover, it should be used by regional government to enhance the constant socioeconomic development, including activities of local society. This is especially important in the period of stimulating the development after the world financial crisis 2007–2011 (Pukala, 2012).

The specific feature of Podkarpackie voivodship is its lower socioeconomic development as compared to others regions in Poland. This is a big challenge for local government. A lot of changes in policy are necessary in order to eliminate disparities in development and to make the mentioned level similar to other Polish regions.

While accessing the development and competitive potential of Podkarpackie region it can be seen that it shows better perspectives than in the previous years. It is possible that activities on strengthening the competitive position are here the key to success. Podkarpackie voivodship despite negative conditioning can become competitive in the future.

References:

Delina, R., Drab, R. (2010). Socio-economic aspects of trust building for the electronic business platforms. E & M Economie a Management, 13(4): 110–122.

Dorcak, P., Delina, R. (2011). Impact of E-marketing Services on Economic Performance. Ekonomicky casopis, 59(1): 44–58.

Filip, P. (2005). Audyt wewnetrzny jako narzedzie wspomagajace procesy zarzadzania w jednostkach sektora finansow publicznych. W: Sprawozdawczosc i rewizja finansowa w procesie poprawy bezpieczenstwa obrotu gospodarczego (pp. 139–146). Wyd. AE w Krakowie, Krakow.

Filip, P. (2006). Instruments for financing development of enterprises with national and EU means. Regional transborder co-operation in countries of central and eastern Europe-balance of achievements, PAN Instytutu Geografii Przestrzennego Zagospodarowania, Warszawa, Geopolitical Studies, 14: 345—355.

Klimovsky, D. (2008). Reform of the public administration system at the local and regional levels in the Slovak republic: Working Paper 1-2008. Iceland: University of Iceland, 28, p. 9.

Kudlacz, T., Grzebyk, M. (2002). Zroznicowanie gmin pod wzgledem poziomu rozwoju spoleczno-gospodarczego w regionie rzeszowskim. Zeszyty Naukowe Akademii Ekonomicznej w Krakowie, No 588, Cracow.

Mizla, M., Pudlo, P. (2012). Struktura nakladov kvality a citlivost podnikov na vykyvy ekonomiky. Economics and management, 15(1): 44—56.

Ochotnicky, P., Lajzova, B., Kisel'akova, D. (2011). Cenova konkurencieschopnost a zdanenie energetickych vstupov. Price Competitiveness and Taxation of Energy Inputs. Journal of Economics (Bratislava: Slovak Academy of Research), 59(8): 786—801.

Olak, A. (2008). Rola marketingu terytorialnego w rozwoju miast. In: Przedsiebiorstwo i region (pp. 280—295). Redakcja R. Fedan i M. Smolen. Wydz. Ekonomii UR Rzeszow.

Pridavok, M., Delina, R. (2013). Effective spend management through electronic reverse auction configurations. Quality Innovation Prosperity, 17(1): 1—8.

Pukala, R. (2012). Impact of the Financial Crisis on the Development of Polish and Ukrainian Insurance Market, Contemporary Economy in Times of The Global Crisis. In: Economic, social and legal aspects (pp. 239—255). Edited by R. Borowiecki, A. Jaki, T. Rojek. Cracow University of Economics, Foundation of the Cracow University of Economic, Cracow.

Pukala, R. (2012). Ubezpieczenie jako element wsparcia ciaglosci dzialania przedsiebiorstw. In: Zarzadzanie podmiotami gospodarczymi i instytucjami. Wybrane zagadnienia (pp. 117—141). Red. R. Pukala. Wydawnictwo PWSTE w Jaroslawiu.

Stec, M. (2011). Uwarunkowania rozwojowe wojewodztw w Polsce-analiza statystyczno-ekonometryczna. W: Nierownosci spoleczne a wzrost gospodarczy. Uwarunkowania sprawnego dzialania w przedsiebiorstwie i regionie (pp. 232—251). Red. M.G. Wozniak, R. Fedan. Z. 20. Wyd. UR w Rzeszowie.

Szabo, S, Ferencz, V., Puciha, A.A.R. (2013). Trust, Innovation and Prosperity. Quality Innovation Prosperity, 17(2): 1—8.

Стаття надійшла до редакції 24.07.2014.