

THE LEVEL OF VOIVODESHIP DEVELOPMENT IN POLAND AND ITS IMPACT ON FINANCING THE SOCIAL ASSISTANCE SYSTEM

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Abstract: The goal of most countries in the world is to provide a high standard of living for their citizens. To achieve this goal, the social and economic development of a country is essential. Unfortunately, it does not take place evenly across the whole country, which necessitates a policy of territorially balanced development. Hence, there must be some mechanisms to support peripheral regions, such as social assistance. This article aims to determine whether the level of financing of cash benefits paid from the social assistance system is related to the development of individual regions in Poland in terms of demographic and labor market factors. The analyzes carried out indicate that in Poland, through cash benefits paid to the poorest, developed regions are supported more and peripheral regions less.

Keywords: financing of social benefits, Poland, regional development, social assistance scheme, voivodships

1 Introduction

The goal of most countries in the world, especially those with a capitalist system, is to ensure a high standard of living for their citizens. However, to achieve an adequate standard of living for the inhabitants of a given country, the socio-economic development of the country is necessary, which results in the improvement of living conditions and satisfying their necessary needs. The socio-economic development of territorial areas (e.g. countries, regions) has been the subject of analysis of economic and other social studies for a long time. In Poland, in the literature on the subject, many publications attempt to analyze the development of regions, poviats or smaller administrative units. The situation is similar in international literature. Interested readers can familiarise themselves with authors such as: Pike, Rodríguez-Pose, Tomaney, 2011; Pike, Rodríguez-Pose, Tomaney, 2016; Rietveld, 1989; Halkier, Danson, and Damborg 2002; Scott, Storper, 2005; Higgins, Savoie, 2017.

These publications, despite some conceptual differences, show an important premise that one of the basic features of contemporary development conditions is the existence of significant disproportions in the region potential, not only in Poland but also in the world (for more see, e.g., Kudłacz, Woźniak, 2009; Hausner, Kudłacz, Szlachta, 1998). This finding may constitute an important justification for continuous analyzes of regional development carried out within the framework of economic studies, or more broadly, social studies.

When attempts are made to analyze the socio-economic development in the regional perspective and the social welfare scheme, as was done in this article, it becomes necessary to define the basic concepts synthetically.

J. Parysek notices that the term socio-economic development is generally understood as the entirety of changes or transformations that both societies and the economy undergo. It is a complex and lengthy process (Parysek, 2018: 39). U. Ziemiańczyk defines socio-economic development differently, and divided this concept into two parts. The first part is economic development, which she describes as a process of internal, economic, and social transformation of the country leading to the emergence of a society seeking ways to improve its economic situation and organized in a way that enables and encourages citizens to invest in material, human and intellectual capital, necessary for its continuous accumulation. The second part of the term, on the other hand, has been associated with social development.

As socio-economic development is a complex and complicated process, it can be largely simplified that it is the geographical and natural conditions and the effects of heterogeneous socio-economic factors that make individual regions of the country characterized by a different economic situation, and thus a

different level of management and development (Malina, 2020: 138). It is important as these processes translate directly into the living conditions and well-being of the inhabitants. Since socio-economic development is a complex process of quantitative and qualitative changes in the economic, social and cultural spheres, there is no single economic indicator that can be used to holistically describe the social and economic development of a region or a country. Hence, in scientific publications, researchers try to build an appropriate set of measurable economic or social indicators that would allow to determine the level of development of individual territories. An example is the set of economic development and growth indicators prepared by J. Paryska, who noticed that the indicators of economic development include, inter alia, gross domestic product, the volume and structure of exports, the level of urbanization, the structure of employment or the level of consumption. On the other hand, the indicators of economic growth were assigned i.a. to the budget deficit, interest rate, level of debt, level of investment, the standard of living, level of poverty, or level of scolarisation (Parysek, 2018). An example is the set of economic development and growth indicators prepared by J. Paryska, who noticed that the indicators of economic development include i.a. gross domestic product, the volume and structure of exports, the level of urbanization, the structure of employment or the level of consumption.

M. Stec presented a different approach in her publication, who, in an attempt to define the conditions for the development of voivodships in Poland, sets as many as 55 indicators grouped in five areas: population and labor market; the level of entrepreneurship development; the level of industry and construction development, innovation and research development; the level of agricultural development; the level of sociotechnical infrastructure development (for more see Stec, 2011).

The literature on the subject also presents the view proposed by M. Kola-Bezka, who pointed out that economic growth is a condition for the economic and social development of the region, measured by the Gross Domestic Product (see Kola-Bezka, 2015). It seems, however, that such an approach is unjustified and constitutes an oversimplification that equates socio-economic development with economic development measured by the GDP value.

In recent years, a high rate of economic growth was assumed to be tantamount to the level of development of the country, and "until recently, in economics, only the concept of economic growth and economic development were distinguished, and both concepts were often equated with each other" (Kubiczek, 2014: 42). When the above-mentioned concepts were separated, there was a clear problem with estimating the development of states, because firstly it is not easy to identify all the wealth of a country, and secondly, even if it could be determined, there is a problem with their objective measurement. Then, the concept of sustainable development was introduced, which in Poland in the Great Encyclopedia of PWN was described as follows: sustainable development is meant to meet the needs of the present generation and unlimited opportunities for future generations to satisfy their needs (Wojnowski, 2005: 9).

As already mentioned, the process of socio-economic development is characterized by regional differentiation, distinguishing dynamically developing regions and regions lagging in development. Thus, differences in development between individual regions are a prerequisite for the creation and implementation of regional policies, which will result in positive changes (for more see Domański, 1997; Gawlikowska-Hueckel, 2003; Strzelecki, 2008). It is worth noting, however, that there is no single universal theory of regional development, and the diversity of theories of socio-economic development presented in the literature shows the complexity of this process. Development theories are made on the basis of diagnosed and

revalued known factors generating socio-economic changes and the identification of interactions between these factors and the socio-economic environment. Development factors should be considered not as separate components of the socio-economic system, but as a set of interactions in a given system, and these interactions are characterized by variability in time and space. Development factors should therefore be considered with the use of the theory of regional development. In addition, development factors are often diagnosed and described within specific development strategies and policies and these interactions are variable in time and space.

Contemporary development policies, including regional policy, are created in relation to regional socio-economic conditions with the use of the so-called space factor. The main premise for creating regional development policies are regional development disproportions, and they aim to focus on territorial alignment of diverse economic and social conditions for the functioning and development of areas, including rural areas.

Territoriality is a fundamental feature of regional development and concerns a specific geographical, economic, and social space (Jewtuchowicz, 2016: 224). In government and local government practice, special attention is paid to the place-based approach in programming local and regional development. Territorialization (place-based policy) as a paradigm of the new regional policy was presented by F. Barca in his report, in which he stated that regional (cohesion) policy in the European Union is ineffective and does not take into account the specificity of regions and their territorial development potential (Barca, 2009). A critical assessment of the functioning of regional policies at various territorial levels has resulted in the dissemination of a new paradigm of regional development policy. In the Treaty of Lisbon of 13 December 2007 in Art. 2 clause 3 states that the EU „supports economic, social and territorial cohesion as well as solidarity between member states” (EU, 2009). Particular attention should be paid to territorial factors and instruments that play an important role in the policy of shaping regional development. Territorialization of the regional policy takes into account both the diversified conditions of development and the optimal use of territorial capitals (endogenous potentials) in the process of regional development (Camagni, 2011).

Territorialization of the regional development policy is closely related to the implementation of the development strategy of a given territory along with territorial financial instruments managed, inter alia, by the provincial government bodies. The scope of the intervention must be adjusted to the state and needs of the region.

The EU cohesion policy for 2014-2020 and the policy assumptions for 2021-2027 are focused on the territorial dimension of public policies, defining the goals and scopes of territorial interventions, as well as areas of strategic intervention. These areas are characterized by a set of social, economic, or spatial conditions and features that determine the existence of barriers to development in their area or permanent, possible to activate development potentials (Obrebalski, 2020).

The importance of territorially balanced development in Poland is emphasized in the strategic development documents of the country „Strategy for Responsible Development” (Ministry of Development, 2017). The strategy emphasizes the territorial targeting of policies and activities aimed at stimulating internal development potentials and adapting interventions to the local situation. As part of the „National Strategy for Regional Development 2030”, challenges for regional policy have been defined to counter territorial inequalities and spatial concentration of development problems and to eliminate crises in degraded areas (Ministry of Investment and Development, 2019).

The recapitulation of prior information allows, therefore, to conclude that within the framework of sustainable development, regions lagging in development should be more supported by the state than dynamically developing regions.

The second premise on which this text is based is the observation that disruptions in the course of socio-economic development may occur, which will block it and, consequently, will also limit the growth of citizens' welfare. The factors disrupting socio-economic development include social problems (for more see Schwartz, 1997: 278; see also Miś, 2007: 25-38; DeFronzo, Gill, 2019; Fuller, Myers, 1941: 15). The emerging social problems of „too high intensity” can effectively block the economic development and increase the welfare of citizens (for more see: Horodecka, 2011: 21; Helliwell, 2003; Hudson, 2006; Frey, Stutzer, 2002 and 2007). It is worth remembering that traditionally in economics, economic growth has been associated with investments and the dynamics of human capital and employment. Currently, more and more often, in scientific research, econometric models appear that attempt to describe the social aspects of the functioning of the economy (see Sztudynger, 2007). The social factors of economic growth include i.a. such elements as income inequality, distrust of public authorities, unemployment, and crime. They can be treated as direct or indirect characteristics of the quality and cohesion of interpersonal bonds (social capital¹). Undoubtedly, all of them, if their intensity is too high, significantly disrupts interpersonal relations and slow down the economic growth of countries. Moreover, some of these determinants can be attributed to two dangerous characteristics: self-perpetuation and inheritance, with poverty and income inequality being a good example. Therefore, it is in the interest of each state to solve acute social issues, not only to prevent the disintegration of social cohesion² society, but most of all to eliminate factors disturbing the country's economic growth. The accumulation of social problems may not only lead to a slowdown in economic growth but also act as an impulse to destabilize the state. Of course, the dominant capitalist system in most countries in the world is not self-destructive, but in the face of growing social problems, it should not be expected that „the system will reform itself” and lead, for example, to a fairer redistribution of income. It is the politicians or political parties that govern a given country that should undertake reforms in the face of too high an intensity of social problems in order to inhibit their development.

Due to the fact that the socio-economic development of territorial units is not uniform in every country, there must be support mechanisms aiding people who are deprived of income, do not participate in the labor market, or experience difficult situations that they cannot cope with without state support. Such mechanisms include the social welfare system in Poland. It is important, however, that this system should be adapted to the level of socio-economic development of individual regions.

In Poland, the issues of social assistance in Poland are regulated by the Act of 12 March 2004 on social assistance (Journal of Laws of 2018, item 1508, as amended). This legal act defines not only the institutional structure of the social assistance system but also its task dimension. Art. 2 of the Act on Social Assistance states that social assistance is an institution of the social policy of the state aimed at enabling individuals and families to overcome difficult life situations which they are unable to overcome using their powers, resources and possibilities. The first condition for assisting is a difficult situation, the second is the lack of self-sufficiency. This means that the person applying for assistance is obliged to overcome the difficult life situation on their own, and only then, when it is unable to do so, it may be granted assistance (Sierpowska, 2013: 13). Social assistance

¹ According to R. Putnam, social capital is a cultural phenomenon, it is the resource of the community, not the individuals who create it. It includes the civic attitude of members of the society, norms supporting cooperation as well as interpersonal trust and citizens' trust in public institutions. The basic element of social capital is trust, which guarantees the best solution to the prisoner's dilemma, although not necessarily the most beneficial for each of its members: maximizing the common good instead of - as in the case of human capital - maximizing the individual utility function (Putnam, 2003).

² Social cohesion - is of interest to many countries and international organizations. It is difficult to give an unequivocal definition of this term. This term appears in the achievements of many scientific disciplines, including economics, sociology, social policy or political science. According to one definition created by the Council of Europe, social cohesion is "society's ability to provide welfare to all its members, minimize disparities and prevent marginalization" (Council of Europe, 2008: 14; see also Jensen, 1998; Hulse, Stone, 2007).

supports the individual and the family in their efforts to meet the necessary needs.

The information presented earlier allows us to notice that in Poland it becomes important to determine whether the level of financing of cash benefits from the social welfare system, which is to support the poorest people, is related to the socio-economic development of individual regions. It is this problem that has been analyzed in this article. In the light of economic and social theories and activities undertaken by international entities, such as the European Union, related to the concepts of sustainable development or cohesion policy, it seems reasonable to say that poorer regions, with lower socio-economic potential, should have a higher level of financing cash benefits from the social welfare system than richer regions.

2 Materials and Methods

Measuring the socio-economic development of voivodships requires the selection of appropriate measures or indicators. Based on the literature on the subject, universal and generally recognized solutions in this area cannot be applied.

An important issue concerning the diversification of regional development is the choice of regional development factors. The set goal of the research and the research methodology used determine the selection of measures of regional development and are the result of data availability and arbitrary decisions of the researcher (Stanny, 2012). The most general groups of criteria for selecting factors for regional development include: content-related, formal, and statistical (Strahl, 2006: 33; Markowska, Sobczak, 2002).

The tool used in the research to compare voivodeships and their classification in the multidimensional space of features was the method of linear ordering by Z. Hellwig (1968). The synthetic measure of development (also known as the Hellwig development measure) is calculated by measuring the distance between the reference object and the observed objects and is used for the linear ordering of objects described by many diagnostic variables, which are replaced by one synthetic variable (Panek, Zwierzchowski, 2013).

In Hellwig's method, the distance of each element from the pattern is calculated according to the Euclidean metric:

$$d_{i0} = \sqrt{\sum_{j=1}^m (z_{ij} - z_{0j})^2} \quad (1)$$

where z_{ij} and z_{0j} are standardized values of diagnostic variables for the i -th object and the reference object ($i = 1, \dots, n; j = 1, \dots, m$). Standardization of features follows the formula:

$$z_{ij} = \frac{x_{ij} - \bar{x}_j}{s_j} \quad (2)$$

where:

z_{ij} - standardized value of the j -th variable for the i -th object,

x_{ij} - value of the j -th variable for the i -th object,

\bar{x}_j - arithmetic mean of variable X_j ,

s_j - standard deviation of the variable X_j .

As a result of this transformation, the variable Z_j was obtained with the mean value equal to 0 and the standard deviation equal to 1.

For each object, a synthetic measure of development s_j was calculated, according to the formula:

$$s_i = 1 - \frac{d_{i0}}{d_0} \quad (3)$$

wherein:

$$d_0 = \bar{d} + 2s_d \quad (4)$$

where \bar{d} is the arithmetic mean of the distance from the pattern, and s_d - the standard deviation of the distance between the objects and the average distance from the pattern.

The calculated measure of development s_i usually takes values in the interval $[0, 1]$. Gauge values close to value 1 indicate greater similarity to the reference object. For objects further away from the reference object, the value of the synthetic development measure takes lower values. In justified cases, when the object differs from the others in terms of development, the value of the development measure may exceed the range $[0, 1]$.

Based on the value of the taxonomic measure of s_i development calculated for all research objects, a ranking of provinces was created based on their ranking according to the value of this measure. The voivodeships with the highest value of the synthetic measure of development are characterized by a high level of development.

In the research, using the values of the development measure, objects were grouped into classes with a similar level of development. Objects (voivodeships) were divided into four classes according to the rule based on the mean and standard deviation of the synthetic measure of development (see Nowak, 1990; Malina, 2004):

group I (the highest level of development): $s_i \geq s(\text{avg}) + s(s)$;

group II (high level of development): $s(\text{avg}) \leq s_i < s(\text{avg}) + s(s)$;

group III (average level of development): $s(\text{avg}) - s(s) \leq s_i < s(\text{avg})$;

group IV (low level of development): $s_i < s(\text{avg}) - s(s)$.

For the purposes of this article, a study using the Hellwig method (1968) was carried out, which made it possible to evaluate changes in the development of individual provinces in Poland in 2007, 2015, and 2019. The research used statistical data from Statistic Poland - *Local Data Bank*, which took into account regional demographic and labor market conditions. To assess the spatial diversity of voivodeships, the following features adopted for the study were taken into account:

1. Demography and the labor market

X1 -population per 1 km² of the area (S),

X2 -the balance of internal and foreign migrations for permanent residence per 1 thousand population (S),

X3 -the balance of inter-voivodeship migration for permanent residence (migration balance coefficient) (S),

X4 -natural increase per 1000 population by place of residence (S),

X5 -post-working age population per 100 people of pre-working age (D),

X6 -non-working age population (before and after working age) per 100 persons of working age (D),

X7 -working-age population as % of the total population (S),

X8 -total unemployment rate (Poland = 100) (D).

The next stage of the research was to analyze the general expenditure incurred by the state on the social welfare system in Poland in 2007, 2015, and 2019. For the purposes of the article, an analysis of the existing documents was carried out, i.e. legal acts that regulate expenditure from the state budget for the social welfare system and other tasks in the field of social policy (including the Ordinance of the Minister of Finance of March 2, 2010 on the detailed classification of income, expenses, revenues and expenses as well as funds from foreign sources and the Regulation of the Minister of Finance of July 25, 2016 amending the regulation on the detailed classification of income, expenses, revenues and expenses as well as funds from foreign sources). Statistical data were analyzed.

For scientific research, the main research hypothesis was formulated, which contained the statement that in Poland the level of financing cash benefits from the social welfare system is not related to the development of individual regions in terms of demographic factors and the labor market. This situation may be a significant obstacle in counteracting territorial inequalities in Poland. This hypothesis is part of the discussion in the scientific literature, in which some authors, when analyzing social problems, focus only on the scale of a given social phenomenon. Without questioning this position, it should be noted that the analysis and discussion of problematic social issues should take place rather in the context of the economic and social conditions

of a given country. The promoter of such a position was S.M Miller (1976: 4), who already in the 1970s indicated that it is not so much important to describe the size of individual social problems as to analyze them in the context of the economic and social conditions of a given country or region. The very existence of social problems in modern countries is not, after all, something „new” or „exceptional”. What is important, however, is how a country is prepared to deal with social problems and whether „aid mechanisms” are adapted to economic and social conditions taking into account the country's level of regional development.

3 Results

During the analyzes for individual provinces in Poland, synthetic measures of Hellwig's development were calculated in terms of factors related to demography and the labor market for 2007, 2015, and 2019.

Tab. 1: Values of Hellwig's development measures for voivodeships in Poland in 2007, 2015, and 2019 by belonging to the development group and position among voivodeships

Voivodeship	2007			2015			2019		
	A*	B**	C***	A*	B**	C***	A*	B**	C***
Lower Silesia	0.372	2	6	0.458	1	1	0.452	1	1
Kuyavian-Pomeranian Voivodeship	0.324	2	8	0.166	3	11	0.144	3	12
Lublin Province	0.103	4	15	0.115	3	13	0.135	3	13
Lubuskie	0.326	2	7	0.185	3	10	0.168	3	11
Lodzkie	0.167	3	12	0.264	2	7	0.27	2	7
Lesser Poland	0.551	1	1	0.328	2	5	0.338	2	4
Masovian Voivodeship	0.467	1	4	0.376	1	2	0.421	1	2
Opole Province	0.175	3	11	0.261	2	8	0.247	2	8
Podkarpackie Province	0.267	3	10	0.165	3	12	0.196	3	10
Podlasie	0.143	4	13	0.094	4	14	0.117	3	14
Pomeranian	0.516	1	3	0.281	2	6	0.277	2	6
Silesian	0.377	2	5	0.338	2	4	0.332	2	5
Świętokrzyskie Province	0.1	4	16	0.082	4	15	0.077	4	15
Warmia and Mazury	0.133	4	14	0.033	4	16	0.037	4	16
Greater Poland	0.517	1	2	0.357	1	3	0.353	2	3
West Pomeranian	0.273	3	9	0.234	2	9	0.204	3	9

Note: A* S₁- synthetic measure of Hellwig's development. B** belonging to a development group: group I the highest level of development; group II - high level of development; group III average level of development; group IV low level. The values of the ranges of individual groups in the analyzed period: 2007 group I: S₁ >= 0.458, group II: 0.3036 <= S₁ < 0.458, group III: 0.303 <= S₁ < 0.148, group IV: S₁ < 0.148; 2015 group I: S₁ >= 0.354, group II: 0.234 <= S₁ < 0.354, group III: 0.234 <= S₁ < 0.113, group IV: S₁ < 0.113; 2019 group I: S₁ >= 0.359, group II: 0.238 <= S₁ < 0.359, group III: 0.238 <= S₁ < 0.116, group IV: S₁ < 0.116.

C*** position among voivodeships in Poland according to the measure of Hellwig's development

Source: Own study.

Based on the obtained results, it was found that in Poland there is a large spatial regional differentiation in terms of development related to demographic factors and the labor market. The highest level of development in this regard in the analyzed period was recorded in the following voivodeships: Małopolskie (2019 S₁ = 0.338), Mazowieckie (2019 S₁ = 0.421), Dolnośląskie (2019 S₁ = 0.452) and Wielkopolskie (2019 S₁ = 0.353). On the other hand, the lowest level of development was recorded in the following voivodeships: Warmińsko-Mazurskie (2019 S₁ = 0.037), Świętokrzyskie (2019 S₁ = 0.077) and Podlaskie (2019 S₁ = 0.117). This means that these regions were characterized by the best situation among voivodeships in Poland, e.g. in terms of population density, net migration, birth rate, or unemployment. The conducted analyzes allowed us to notice that in Poland, despite the constant socio-economic development of the country, there are quite well-established differences in the field of regional development. This means that the country has voivodeships with an established position in terms of demographic development and the labor market, but some regions are characterized by a low pace of development measured with the use of Hellwig's taxonomic development measure. However, it is disturbing that the group of voivodeships with the lowest development standard in terms of demographics and the labor market remained practically unchanged throughout the analyzed period. This may mean that the state policy pursued

in Poland, which is aimed at minimizing spatial regional differentiation, is not very effective.

The next stage of the analyzes was to estimate the expenditure on cash benefits paid under the social assistance system, which were implemented in individual voivodeships in Poland.

Tab. 2. Expenditure on cash benefits^a from social assistance schemes in Poland by voivodship in 2007, 2015, and 2019 (in PLN)

Voivodeship	2007				2015				2019			
	A*	B**	C***	D****	A*	B**	C***	D****	A*	B**	C***	D****
Lower Silesia	57 848	384 970	89 676 187	4	50 187	356 683	139 643 272	5	34 038	253 459	115 130 832	5
Kuyavian-Pomeranian Voivodeship	65 863	451 547	95 244 494	3	61 745	436 375	165 047 662	3	40 137	288 315	124 430 701	3
Lublin Province	42 722	276 325	67 035 850	11	37 100	245 018	99 044 127	12	26 098	184 370	86 702 687	10
Lubuskie	32 593	209 636	45 272 567	13	27 955	193 568	73 893 734	14	18 811	135 883	61 603 449	15
Lodzkie	57 773	376 162	87 138 030	5	53 055	394 735	141 809 210	4	37 922	283 068	122 124 568	4
Lesser Poland	42 311	293 636	75 472 527	6	37 523	271 225	103 291 950	10	36 320	282 534	115 086 623	6
Masovian Voivodeship	70 875	478 236	128 797 599	1	60 066	439 176	182 790 096	1	46 086	360 189	178 003 866	1
Opole Province	16 579	116 518	26 956 478	16	17 176	128 938	49 363 310	16	11 908	91 592	798 798 768	16
Podkarpackie Province	36 136	239 284	57 645 873	12	38 144	266 517	105 764 517	9	26 115	192 085	86 689 519	11
Podlasie	28 295	188 605	41 078 261	14	30 834	220 653	83 764 122	13	20 969	157 127	67 471 493	13
Pomeranian	40 569	267 888	71 427 826	9	39 171	273 697	110 903 943	8	28 226	211 954	104 003 919	9
Silesian	80 538	531 867	127 586 671	2	71 172	498 481	173 434 681	2	47 125	337 882	142 606 941	2
Świętokrzyskie Province	27 743	162 805	39 72 923	15	24 619	176 653	69 277 310	15	18 024	135 285	64 858 125	14
Warmia-Mazuria Province	50 558	319 610	73 434 409	7	51 046	358 878	138 403 317	6	33 655	235 631	105 211 817	8
Greater Poland	48 063	301 088	011 042	8	46 844	309 445	119 801 929	7	32 933	230 759	107 929 817	7
West Pomeranian	48 498	315 513	71 071 871	10	40 817	278 433	102 587 751	11	26 410	185 520	113 074 698	12
Together	746 964	4 210 289	169 210 528		687 454	4 608	860 375 250		485 377	3 653	1 605 626 401	

Note: ^acash benefits - for the analysis, three main forms of cash benefits were selected, i.e. permanent benefit, periodic benefit, and specific benefit.

A* the number of people who were granted benefits in the form of permanent, periodical, or specific benefit

B** number of benefits

C*** the amount of benefits in PLN

D**** position among voivodeships in Poland according to the amount of expenditure in PLN (1 - the highest expenditure of a voivodship nationwide, 16 - the lowest expenditure)

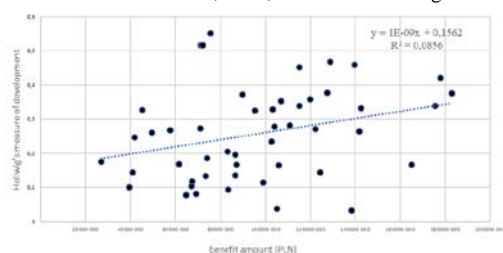
Source: Own study.

The collected numerical data made it possible to determine the level of cash benefits paid in the social assistance scheme in Poland, the number of benefits paid, and the number of people who received these benefits in 2007, 2015, and 2019. In 2007, in Poland, under the social assistance scheme, cash benefits were paid out to a total of PLN 1 169 210 528 for 746 964 people. The largest amounts of benefits were paid in the Mazowieckie voivodship (PLN 128 797 599, for 70 875 people). The lowest expenses were recorded in the Opole region (PLN 26 956 478 for 16 579 people). The situation was similar in 2015 and 2019 when the largest amounts of money were allocated to cash benefits in the Mazowieckie voivodship (2015 - 182 790 096 PLN and 2019 - 178 003 866 PLN), despite the fact that the number of recipients of these benefits decreased in this region (2007 - 70 875 people; 2019 - 46 686 people). A similar tendency as in the Mazowieckie region was recorded throughout the country, where despite the decrease in the number of beneficiaries of social benefits (2007 - 746 964 people; 2019 - 485 377 people), an increase in the amounts allocated to social benefits can be noticed (2007 - PLN 1 169 210 528; 2019 - PLN 1 605 626 401). In turn, the lowest expenditure on cash benefits from social assistance scheme in the entire analyzed period was recorded in the Opolskie Voivodeship (2007 - PLN 26 956 478; 2019 - PLN 41 798 768). After analyzing the presented data, we can notice a disturbing phenomenon in which the highest

expenditure on cash benefits from the social welfare scheme was recorded in regions with a high level of development in terms of demographic factors and the labor market, based on the Hellwig's measure.

To determine whether in Poland the level of financing of cash benefits from the social welfare scheme is related to the level of development of individual regions, an analysis of the correlation between these factors was carried out.

Graph 1: Correlation analysis using the chi-square test of independence* for the variables: Hellwig's development measure in a voivodeship and expenditure on cash benefits from the social welfare scheme in 2007, 2015, and 2019 in the region



Note: *R² - Pearson's r correlation coefficient

Source: Own calculations using Statistica 12.0.

The analysis of the correlation between the measure of Hellwig's development in individual provinces and the expenditure on cash benefits from the social welfare scheme in 2007, 2015, and 2019 in the region showed a weak correlation between these variables ($R^2 = 0.0856$). This means that in Poland there is no statistically significant correlation between the level of development of the voivodeship in terms of demographic factors and the labor market (i.e. population density, net migration, birth rate, post-working age population, unemployment rate) and the level of cash benefits paid under the social welfare scheme in individual regions.

4 Conclusion

The socio-economic development of territorial areas is of interest to many studies, including economics. One of the features of contemporary development conditions is the presence of significant disproportions in the potential of regions, not only in Poland but also in the world. The goal of each country should be to pursue a public policy that will reduce these disproportions and will lead to the sustainable development of the entire country. This means that regions with a lower development potential should be more supported by the state than dynamically developing regions.

In the course of socio-economic development, however, certain disruptions may appear, which will block it and limit the growth of citizens' welfare. One such factor is social problems, and the state plays an important role in limiting their scale. Therefore, it is in the interest of each state to solve acute „social issues” and to use support mechanisms for this purpose, such as the social welfare scheme. These activities, however, should be adapted to regional differences in socio-economic development.

The aim of the research was to determine whether the level of financing of cash benefits paid from the social assistance scheme is related to the development of individual regions in terms of factors related to demography and the labor market.

During the analyzes, it was found that in Poland in 2007, 2015, and 2019 there was a large spatial differentiation of regions in terms of the level of development. The highest level of development, measured by the Hellwig taxonomic index, was found in the Mazowieckie, Małopolskie, and Dolnośląskie voivodships. On the other hand, the lowest level of development was recorded in the Warmińsko-Mazurskie and Świętokrzyskie voivodships. It is disturbing that in Poland, despite the sustainable development policy, there were persistent differences

in regional development, which indicates that public policy in this area is ineffective.

In Poland, the greatest amount of financial resources in the social welfare scheme was allocated to cash benefits in regions that had a high level of development in terms of demographic and labor market factors. It was also found that in Poland there is no statistically significant correlation between the development in terms of demographic factors and the labor market of individual voivodships, and the level of cash benefits paid out under the social welfare scheme. The conducted research and analyzes allow for the full confirmation of the main hypothesis of this article and at the same time indicate that the state, through the payments made to the poorest, supports more "developed" regions and, to a lesser extent, peripheral regions. This may be a significant barrier in eliminating the spatial differentiation in the development of voivodships in Poland.

The issues of demography and the labor market are one of the factors determining the level of development of the region and should be taken into account in the implemented regional policies. The research confirmed the authors' assumptions that the regional development policy should be aimed at improving the demographic situation of the region, stimulating the labor market in the regional perspective and effective distribution of social assistance. Moreover, the conducted research does not refer to intra-regional differences in the demographic situation and the labor market of voivodships, which are usually concentrated around large cities. Because of the above, when analyzing the problems of demography, the labor market and social welfare, research should be continued to broaden the scope of research and diagnose the occurrence of intra-regional differences in this respect.

It should be noted, however, that the analyzes carried out for the purposes of this article are not comprehensive. Only selected factors related to demographic conditions and the labor market were analyzed with the use of the Hellwig's measure. For example, factors related to economic development, entrepreneurship or innovation in individual regions in Poland were not analyzed. The presented article, however, may be a contribution to a further in-depth discussion on the development of regions in Poland and the use of schemes such as social assistance to reduce the differences in the standard of living of the population living in different parts of the country.

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