

SPATIAL DIFFERENTIATION IN THE EU FUND ABSORPTION IN POLAND – A REGIONAL OUTLOOK

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Purpose: The purpose of this article is to conduct an analysis of spatial differentiation of the EU fund absorption of the programming period of 2007-2013 as well as the period of 2014-2020 in its regional dimension, i.e. at the level of 380 districts in Poland. The article attempts to test a hypothesis according to which in Poland there exist significant spatial variations in using European funds.

Design/methodology/approach: In order to specify the level of the socio-economic development of districts, the Hellwig method has been used, by means of which a synthetic measure of development has been construed. Moreover, the compilation has examined the correlation between the discrepancies between the socio-economic level in respective districts and the amount of the community funds used in specific regions.

Findings: Based on the research conducted in this paper, one may conclude that the absorption of EU funds stemming from structural funds as well as the cohesion fund is highly spatially varied. In Poland, from the standpoint of districts, there are significant spatial discrepancies in the use of EU funds of the 2007-2013 as well as 2014-2020 financial perspective.

Research limitations/implications: In the future, research can be extended to other countries. The research limitation may be, however, the availability of empirical data.

Social implications: The results of the research may prove useful in the planning and redistribution of EU funds by central and local government in the new financial perspective 2021-2027 in Poland.

Originality/value The article presents a new approach to research on the spatial differentiation of the absorption of EU funds using the Hellwig method and the relationship between the absorption of these funds and the change in the level of socio-economic development.

Keywords: EU funds, spatial differentiation, the socio-economic development, Polish districts.

Category of the paper: Research paper.

1. Introduction

The basic EU funds of the European cohesion policy are structural funds as well as the cohesion fund, which both in the relevant literature and in the economic practice are often termed as "EU funds". An amount of EUR 67.3 bn of the EU based money has been devoted to the realisation of the cohesion policy (the Ministry of Regional Development, 2007).

However, within the programming period of 2014-2020, EUR 82.5 bn from the European Union budget (the Ministry of Infrastructure and Development, 2014). Both in the financial framework of 2007-2013 and within the period of 2014-2020, Poland was the biggest net beneficiary of the European cohesion policy (Mrak, Richter, and Szemler, 2015).

The main principle of spending the European funds is attaining an economic, social and territorial cohesion above all through supporting growth and creating new workplaces in the least developed states and regions (Hall, 2012).

Therefore, mainly regions at the level of NUTS II qualify to receive financial support, regions whose GDP per capita in the case of structural funds is lower than 75% of the average for all the European Union, and in the case of the cohesion fund – states with a GDP per capita amounting to less than 90% of the average for all the European Union who had an agenda geared towards meeting the economic convergence criteria (Sweet, 2012).

The purpose of this article is to conduct an analysis of spatial differentiation of the EU fund absorption of the programming period of 2007-2013 as well as the period of 2014-2020 in its regional dimension, i.e. at the level of 380 districts in Poland. In the publication, the notion of "absorption" is understood as the amount of money actually spent on projects co-funded by the EU, realised within the cohesion policy in Poland, and used interchangeably with the notions: "involvement" and "use". The article attempts to test a hypothesis according to which in Poland there exist significant spatial variations in using European funds.

Moreover, the compilation has examined the correlation between the discrepancies between the socio-economic level in respective districts and the amount of the community funds used in specific regions.

To achieve the above purpose, the descriptive, causal and comparative methods has been used. In order to specify the level of the socio-economic development of districts, the Hellwig method has been used, by means of which a synthetic measure of development has been construed.

Statistical data concerning the level of district development has been extracted from the Bank of Local Data of the Main Statistical Office, and the data of the EU fund involvement in respective districts has been generated from *A list of EU Fund beneficiaries in the years 2007-2013* and *A list of projects realised from the EU Funds in Poland in the years 2014-2020* as of 31 July 2019, published by the Ministry of Development on the website of the EU Fund Portal. All graphics-related compilations have been prepared in the GIS software.

2. The absorption of the EU funds in Poland in their regional aspect

The bases for implementing the EU cohesion policy in Poland are: the National Strategic Reference Framework (the National Cohesion Strategy) for the programming period of 2007-2013 and the Partnership Agreement for the financial perspective of 2014-2020. The said strategic documents specify the priorities and activities for the Polish regional policy. In the said documents, an assumption has been made that the structural funds (among which: the European Regional Development Fund and the European Social Fund) as well as the cohesion fund are the main source of funding of the regional policy in Poland (Spychała, 2017).

In the 2007-2013 financial perspective, the EU cohesion policy was implemented in Poland based on 16 Regional Operational Programmes as well as five National Operational Programmes: the Infrastructure and the Environment, the Innovative Economy, the Human Capital, the Development of Eastern Poland and Technical Aid (the Ministry of Regional Development, 2007). In the programming period of 2014-2020, apart from 16 Regional Operational Programmes, within the European cohesion policy, 6 National Operational Programmes have also been realised: the Infrastructure and the Environment, the Intelligent Development, Digital Poland, Knowledge Education Development, Eastern Poland as well as Technical Aid (the Ministry of Infrastructure and Development, 2014).

According to the state as of 31 July 2019 in the programming period as of 2007-2013 as well as 2014-2020, in Poland, 278 582 were implemented from projects co-funded by structural funds as well as the cohesion fund (the Ministry of Development, 2019a; the Ministry of Development, 2019b).

Until 31 July 2019, PLN 479 bn of EU funds had been used, which constitutes approximately 80% of worth of all the funds made accessible within the cohesion policy realised in Poland. The spatial differentiation of EU fund absorption in Poland in its regional outlook has been presented in the form of a choropleth map in figure 1. Moreover, in table 1, the districts exhibiting the highest and the lowest values of EU funds used within specific categories being the subject of research are presented, and table 2 presents districts exhibiting the highest and the lowest absorption of EU funds in each province.

Table 1.

Fringe values of EU fund absorption in districts within the respective measures in the subjective dimension

The highest values				The lowest values			
District	Value	District	Value	District	Value	District	Value
The number of projects realised co-funded by the EU funds (per inhabitant)							
szczyeński	651,11	bartoszycki	324,95	Legnica	22,66	Słupsk	25,60
ostródzki	395,97	olsztyński	309,31	Siedlce	23,11	Ruda Śląska	25,80
opolski	395,47	nowomiejski	305,52	Sosnowiec	23,66	Szczecin	26,46
mragowski	378,92	gołdapski	275,87	Jastrzębie-Zdrój	24,91	Skierniewice	27,40
kętrzyński	341,11	iławski	263,33	lubiński	25,13	Gdynia	28,14

Cont. table 1.

The value of co-funding gained from the EU funds (in PLN thousand per inhabitant)							
Świnoujście	68,66	rzeszowski	37,53	rybnicki	3,20	krotoszyński	4,05
nowodworski	56,64	przemyski	31,94	olecki	3,60	gostyniński	4,19
ostródzki	44,69	skierniewicki	31,08	Mysłowice	3,68	kolski	4,23
warszawski zach.	39,08	trzebnicki	30,97	Jastrzębie-Zdrój	3,68	ostrzeszowski	4,50
olsztyński	38,56	elbląski	30,03	śremski	3,79	koniński	4,56
The value of co-funding gained from the EU funds (in PLN mln per 1 km² of the area)							
Wrocław	144,01	Olsztyn	42,63	moniecki	0,14	makowski	0,22
Warszawa	62,15	Rzeszów	40,87	wschowski	0,16	strzelecko-drezd.	0,23
Sopot	55,13	Łódź	39,21	świdwiński	0,17	suleciński	0,23
Lublin	50,31	Toruń	38,84	złotowski	0,19	bieszczadzki	0,24
Białystok	46,19	Gdańsk	36,22	węgorzewski	0,21	łosicki	0,25
The value of co-funding gained the benefit of the human capital (in PLN thousand per inhabitant)							
szczycieński	12,68	bielski	7,81	piaseczyński	0,83	Piotrków Tryb.	1,24
nowodworski	10,12	Olsztyn	7,46	rybnicki	1,19	Mysłowice	1,25
świdnicki	9,49	mragowski	7,18	lubiński	1,22	Warszawa	1,26
opolski	9,45	ostródzki	7,14	Tychy	1,24	pruszkowski	1,29
Rzeszów	7,83	gołdapski	6,74	zgorzelecki	1,24	olecki	1,33
The value of co-funding gained to the benefit of the material capital (in PLN thousand per inhabitant)							
Świnoujście	52,31	trzebnicki	20,57	zwoleński	0,32	radziejowski	0,39
warszawski zach.	26,33	skierniewicki	20,12	gostyniński	0,32	łosicki	0,41
ostródzki	24,18	przemyski	20,08	przysuski	0,33	śremski	0,42
nowodworski	22,60	rzeszowski	19,64	szymborowski	0,34	głubczycki	0,50
olsztyński	22,54	elbląski	18,65	makowski	0,35	prudnicki	0,53
The value of co-funding gained to the benefit of the development of innovativeness (in PLN thousand per inhabitant)							
nowodworski	13,44	świdnicki	6,71	rybnicki	0,57	kolski	0,69
bielski	10,25	Rzeszów	6,43	olecki	0,58	kaliski	0,73
opolski	6,98	szczycieński	6,06	zgorzelecki	0,65	myśliborski	0,77
rzeszowski	6,82	Krosno	5,62	Jastrzębie-Zdrój	0,67	kozienicki	0,77
Lublin	6,80	Wrocław	5,55	gnieźnieński	0,67	ostrzeszowski	0,78
The value of co-funding gained to the benefit of the environmental protection (in PLN thousand per inhabitant)							
Świnoujście	13,83	warszawski zach.	7,30	rybnicki	0,67	śremski	0,74
nowodworski	10,49	szczycieński	7,12	gostyniński	0,70	polkowicki	0,74
ostródzki	9,10	rzeszowski	7,08	kolski	0,71	koniński	0,78
bielski	8,07	opolski	6,99	krotoszyński	0,73	olecki	0,78
olsztyński	8,01	przemyski	6,52	Mysłowice	0,74	żarski	0,83

Source: authors' own elaboration.

In every district out of 180 districts, projects co-funded from the EU funds have been realised. On average in one district 733 such undertakings have been realised. The lowest number of projects has been realised in Skierniewice (132), and the highest in Warsaw (5 244), the Olsztyn district (3 241), and the Poznań district (2 822). The highest amount of EU funds has been involved in the realisation of projects in Warsaw (PLN 32.1 bn) and in Wrocław (PLN 12.2 bn), and an average worth of the total co-funding paid out in one district was PLN 1.26 bn.

Table 2.

The districts of the highest and lowest values of the co-funding gained as well as the number of projects within the respective provinces together with their location in Poland

Province	The number of projects per 10 000 inhabitants				The co-funding obtained per inhabitant			
	The highest values		The lowest values		The highest values		The lowest values	
	District	Place in PL	District	Place in PL	District	Place in PL	District	Place in PL
Dolnośląskie	średzki	30	lubiński	376	trzebnicki	9	zgorzelecki	362
	wałbrzyski	57	Legnica	380	milicki	24	ząbkowicki	368
Kujawsko-Pomorskie	grudziądzki	65	Grudziądz	363	Toruń	32	radziejowski	334
	radziejowski	68	Włocławek	364	bydgoski	87	mogileński	340
Lubelskie	świdnicki	25	Zamość	305	puławski	15	łęczyński	275
	tomaszowski	27	Biała Podlaska	308	świdnicki	18	lukowski	287
Lubuskie	sulęciński	192	żarski	321	gorzowski	26	strzelecko-drezd.	336
	zielonogórski	202	Gorzów Wlkp.	361	zielonogórski	37	żarski	367
Łódzkie	brzeziński	38	Piotrków Tryb.	352	skierniewicki	8	Piotrków Tryb.	355
	skierniewicki	41	Skierniewice	372	wieruszowski	48	radomszczański	358
Małopolskie	proszowicki	35	nowotarski	331	tarnowski	41	limanowski	357
	gorlicki	162	Kraków	345	krakowski	67	wadowicki	361
Mazowieckie	lipski	16	Warszawa	366	warszawski zach.	4	zwoleniński	363
	przysuski	19	Siedlce	379	otwocki	13	gostyniński	374
Opolskie	opolski	3	kluczborski	116	Opole	44	namysłowski	328
	namysłowski	34	Opole	209	opolski	81	głubczycki	339
Podkarpackie	leski	81	jarosławski	335	rzeszowski	6	jarosławski	273
	bieszczadzki	90	Tarnobrzeg	336	przemyski	7	jasielski	321
Podlaskie	sejneński	40	Łomża	324	zambrowski	29	kolneński	277
	suwalski	48	Białystok	329	suwalski	46	moniecki	365
Pomorskie	nowodworski	14	Gdynia	371	nowodworski	2	starogardzki	302
	bytowski	70	Słupsk	375	Sopot	20	chojnicki	306
Śląskie	cieszyński	203	Jastrzębie-Zdrój	377	Katowice	112	Mysłowice	378
	bieruńsko-łędz.	207	Sosnowiec	378	będziński	119	rybnicki	380
Świętokrzyskie	opatowski	44	starachowicki	242	kazimierski	108	pińczowski	249
	kielecki	88	Kielce	279	buski	130	starachowicki	289
Warmińsko-Mazurskie	szczyceński	1	olecki	178	ostródzki	3	węgorzewski	364
	ostródzki	2	Elbląg	283	olsztyński	5	olecki	379
Wielkopolskie	grodziski	20	Kalisz	360	leszczyński	23	krotoszyński	375
	słupecki	28	Leszno	362	grodziski	65	śremski	376
Zachodniopomorskie	łobeski	85	Koszalin	370	Świnoujście	1	policki	308
	choszczeński	98	Szczecin	373	koszaliński	54	świdwiński	313

Source: authors' own elaboration.

The spatial differentiation of EU fund absorption in relation to the size of variables – the number of projects per 10 000 inhabitants, the value of funds per inhabitant, as well as the value of funds per square kilometre (table 1). Most EU projects per 10 000 inhabitants have been realised in the districts of the warmińsko-mazurskie province: the szczyceński district (651) and the ostródzki district (396), and the least – in Legnica and Siedlce (23 each). It is well worth noting all 10 districts with the highest number of projects per 10 000 inhabitants are

located in the area of the warmińsko-mazurskie province. The abovementioned situation is a result of a few factors: first of all – the regional authorities have adopted a rule of preferring a bigger number of smaller projects; second of all – in the area of the province, a relatively high unemployment has been registered in the years researched, therefore more projects involving human capital and the job market have been realised in the area; third of all – the beneficiaries from the warmińsko-mazurskie province may apply also for funding from operational programmes geared towards the development of Eastern Poland; fourth of all – a province is one out of not many which have had additional means rendered accessible from the so called initiative towards employing young people.

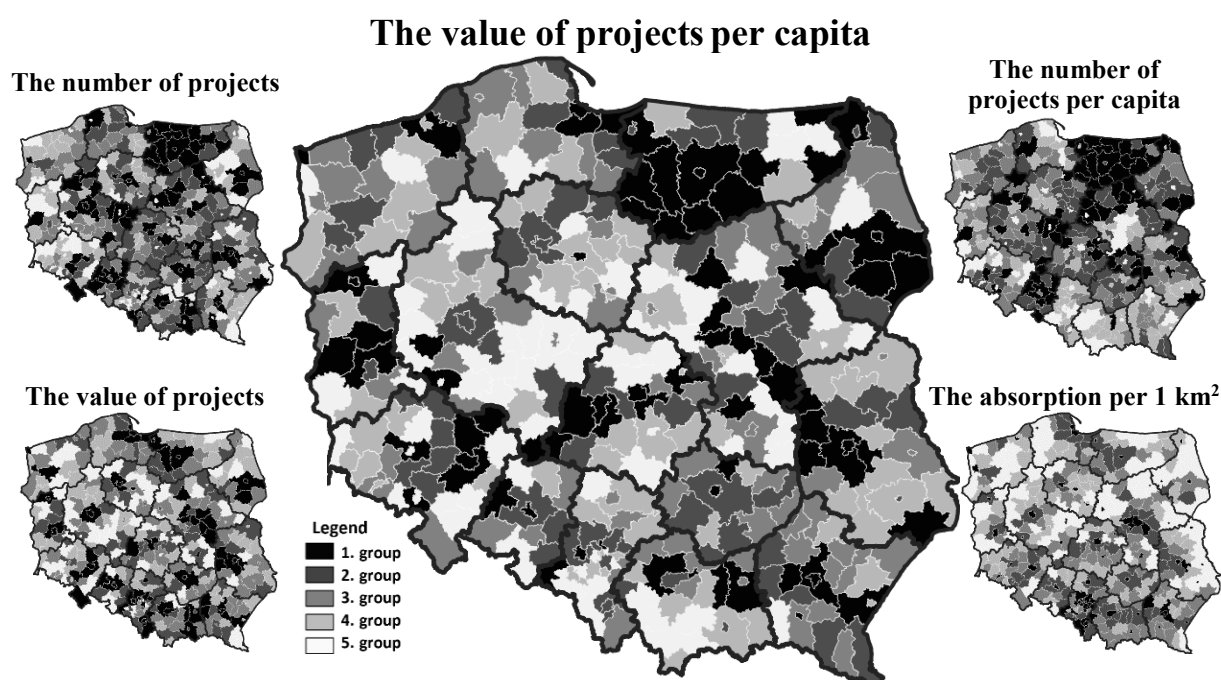


Figure 1. Spatial differentiation of the EU fund absorption in the regional outlook. Source: authors' own elaboration.

The highest number of the EU funds per inhabitant used has been registered in Świnoujście (PLN 68.7 thousand) as well as the nowodworski district (PLN 56.6 thousand) and the ostródzki district (PLN 44.7 thousand). The lowest value of the Community funds ascribed to one inhabitant has been observed in the following districts: the rybnicki district (PLN 3.2 thousand), the olecki district (PLN 3.6 thousand), and Mysłowice (PLN 3.7 thousand). Taking into account the amount of European funds used per each square kilometre of each district area (the so-called soaking of the region with EU funds), the highest number has been observed in Wrocław, Warsaw and Sopot (the first 45 items in the category given are taken up by cities with the rights of a district, and the first rural district is the rzeszowski district), and the lowest – in districts comprising large areas: the moniecki, wschowski and świdwiński district.

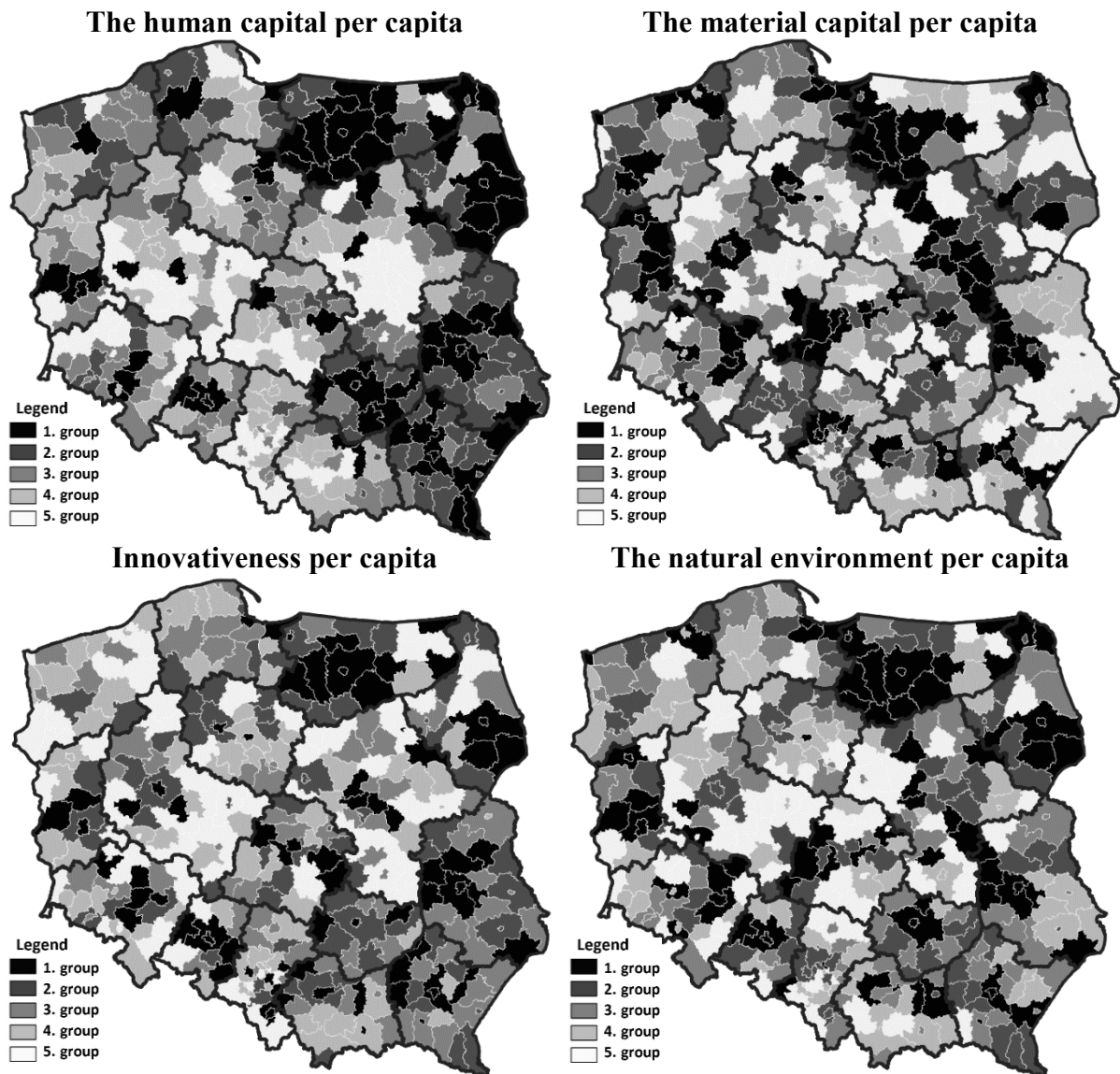


Figure 2. Spatial differentiation of the EU fund absorption in terms of the factors related to the socio-economic development. Source: authors' own elaboration.

An analysis of the spatial differentiation in the EU fund absorption has been conducted according to the intervention structure in relation to factors of the socio-economic development: the human capital, the material capital, innovativeness and the natural environment (figure 2). Funds from the European Social Fund which were made accessible within the Operational Programmes: Human Capital, Knowledge Education Development and partly within every Regional Operational Programme, were directed to the development of human capital. The funds from Regional Operational Programmes have also been partly devoted to the environmental protection and the development of innovativeness as well as the improvement in the material capital. The selected activities of the Infrastructure and the Environment Operational Programmes have supported the development of the material capital and the environmental protection. The following Operational Programme funds to support innovativeness have been devised: the Innovative Economy, Digital Poland as well as Intelligent Development. The research conducted has established that in Poland, according to

the state as of 31 July 2019, the most means – 36.3% - have been directed towards the development of the material capital. Another 24.9% of the EU fund worth has been used to the benefit of the development of the human capital, 20.2% of the funds made accessible have been devoted to environmental protection, and 18.6% - to support innovativeness.

Taking account of the value of funds per capita directed towards the support of the respective factors of development, in the case of human capital, the most EU funds have been used in the szczycieński district (PLN 12.7 thousand per person), and the least in the piaseczyński district (PLN 0.8 thousand per person). Within the framework of the material capital, decidedly the most EU funds have been obtained in Świnoujście (PLN 52.3 thousand per person), and the least in the zwoleński district (PLN 0.3 per person). Innovativeness has been supported to the largest extent in the nowodworski district (PLN 13.4 per person), and to the lowest extent in the rybnicki district (PLN 0.6 thousand per person). The most EU funds to the benefit of the environmental protection have been obtained in Świnoujście (PLN 13.8 thousand per person), and the least – in the rybnicki district (PLN 0.7 thousand).

All in all, the spatial structure of using the EU funds within the Polish framework changes according to the indicator adopted for the analysis, the latter measuring the involvement of European funds in respective districts. However, irrespective of whether absolute measures or relative measures are used, among the districts with the highest involvement of Community funds are Warsaw, Wrocław, Świnoujście, as well as other economically strong city-districts.

3. EU funds and the level of the socio-economic development

The problem of the influence of the EU funds on the level of the socio-economic development is, on one hand, currently on the agenda, and extremely important in terms of the economic policy as well as the economic development, and on the other – insufficiently researched and very often treated superficially.

The difficulties in portraying the interrelations between using the Community funds and the changing level of development concern several issues (Krugman, 1991; Kehagia, 2013). First of all, investment projects realised from the structural funds as well as the cohesion fund are not the only factors of the economic growth, and their separation from other causes of the level of development is an intensely refined and time-consuming procedure (Grosse, 2004; Kozarova, 2013). Second of all, the results of projects co-financed from the EU funds are visible in the sphere of the real economy after some time has elapsed since certain undertakings finished, and the funds used influence the change in the level of development (Iyer, Kitson and Toh, 2005; Kološta, 2016). Third of all, in line with the rule of $n+3$ in force in the procedure of spending the EU funds, the member state has an opportunity to settle EU funds for the three subsequent years following the year that the third part of the allocated Community funds have

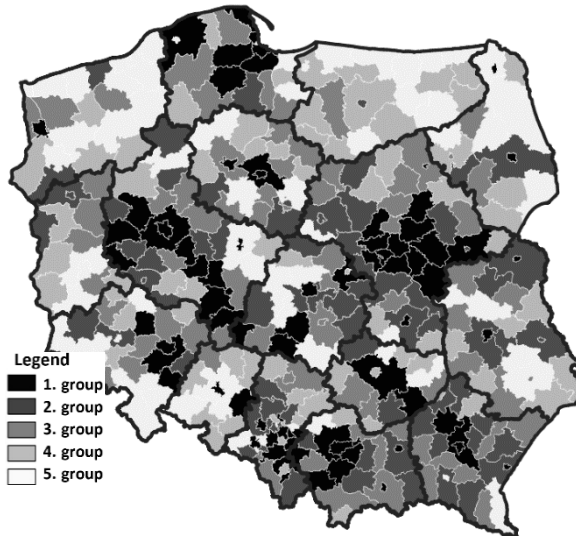
come from, which increases the delays of the impact of the inflow of funds on the change of the level of development (Tkaczyński, and Świstak, 2013; Korneluk, 2015). Due to the intention to portray the most up-to-date data concerning the use of the EU funds in Poland, the article omits the issue of time delay.

In order to portray the correlation between the absorption of the EU funds and the level of the socio-economic development, in the first instance, the change of the development in the years of 2008-2018 has been specified. The change in the socio-economic development of districts in Poland has been indicated based on a synthetic measure of distance from the role model. The research procedure consisted of four concurrent stages. In the first, a matrix of geographical information has been constructed based on 40 indicators related to the level of human capital development, the change of the material capital stock, the environmental protection as well as the innovativeness. Next, the co-efficients of Pearson's linear correlation between the base indicators researched have been calculated. The indicators chosen for further procedure should be weakly correlated with one another in order for the information capacity of those variables to be different (Spychała, 2018). The reduction in base variables has come by means of the Z. Hellwig method, the specificity of which is pinpointing the diagnostic criteria, i.e. the indicators that shall be taken into account in the further research procedure.

As a result of the conducted Hellwig's reduction method, the indicators significantly statistically correlated with the diagnostic method have been eliminated. In the further step of the research, a role model as well as an anti-role model of regional development have been specified - the minimal values of diagnostic criteria. In the next stage, a taxonomic distance of each researched district from the benchmark of development has been measured. In the last stage of research for every district, a synthetic gauge has been devised, indicating the level of development of every district.

The results of the research conducted have been presented in figure 3. Based on the calculated indicators, 380 districts have been divided into five groups: of an extremely high (20% of the districts of the highest value of the synthetic gauge – 1. group), large (the next 20% of districts – 2. group), average (the districts located on positions 153-228, taking account of their diminishing placing based on the given synthetic gauge – 3. group) as well as the small (the districts on positions 229-304 – 4. group) and very small (20% of the districts of the lowest value of the synthetic gauge – 5. group) change in the level of development of the researched phenomenon.

The change in the level of development



Classification of districts

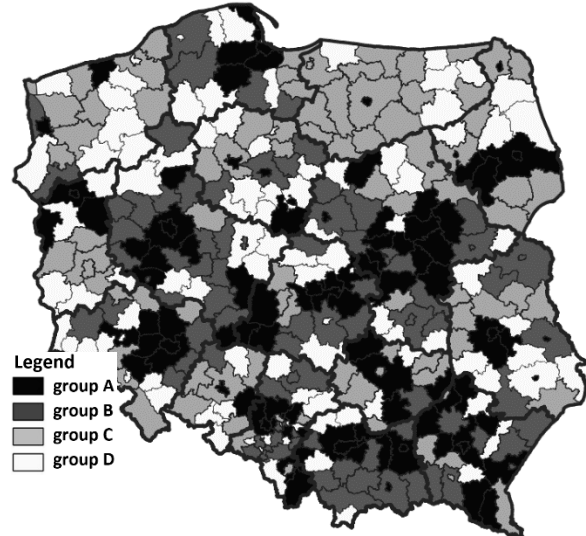


Figure 3. The differentiation in the socio-economic level of the districts in Poland and a classification of districts based on the absorption of EU funds and the change in the level of development. Source: authors' own elaboration.

At the last stage of the research, the results of the analysis of the spatial differentiation of the EU fund absorption with the results of the procedure of establishing the changes in the level of the socio-economic development of the districts in Poland have been compiled. Based on that, a classification of all the units researched has been devised and four groups have been secluded:

- group A – containing districts of a large or extremely large change in the level of socio-economic development as well as a relatively high absorption of EU funds per inhabitant;
- group B – containing districts of a large or an extremely large change in the level of socio-economic development as well as a relatively low absorption of EU funds per inhabitant;
- group C – containing districts of an average or low change in the level of socio-economic development as well as a relatively high absorption of EU funds per inhabitant;
- group D – containing districts of an average or low change in the level of socio-economic development as well as a relatively low absorption of EU funds per inhabitant.

Group A thus contains districts in which both a high level of EU fund absorption and a significant level of socio-economic development measured by a synthetic gauge have been observed. Group B contains districts in which a big change in the level of development was not related to the use of EU funds, as their absorption in those units was relatively low. A reverse situation has been reversed in case of districts classified as group C, in which a high absorption of EU funds has not been transposed onto the change in the level of development. Districts counted as group D have turned out to be rather not active both in relation to the level of development and in terms of using the European funds.

Regions of the highest change in the level of socio-economic development as well as a high absorption of EU funds comprise above all highly developed areas of the following agglomerations: the warszawska, krakowska, poznańska, łódzka, trójmiejska and part of the Silesian agglomerations. Moreover, in group A there have also been districts in the area of Białystok, Gorzów Wielkopolski or a border of the wielkopolskie-łódzkie area. The least active areas in terms of the EU fund absorption as well as an increase in the level of development have comprised, among other, districts of the kujawsko-wielkopolski border. It is well worth noting that in almost all districts of the warmińsko-mazurski province, in which most EU projects per 10 000 inhabitants have been realised, have demonstrated one of the lowest changes in the level of socio-economic development. Based on that, the aforementioned districts have been classified as the rather ineffective group C, which also comprises, among other, a large part of the districts of the opolski, lubuski or zachodniopomorski districts.

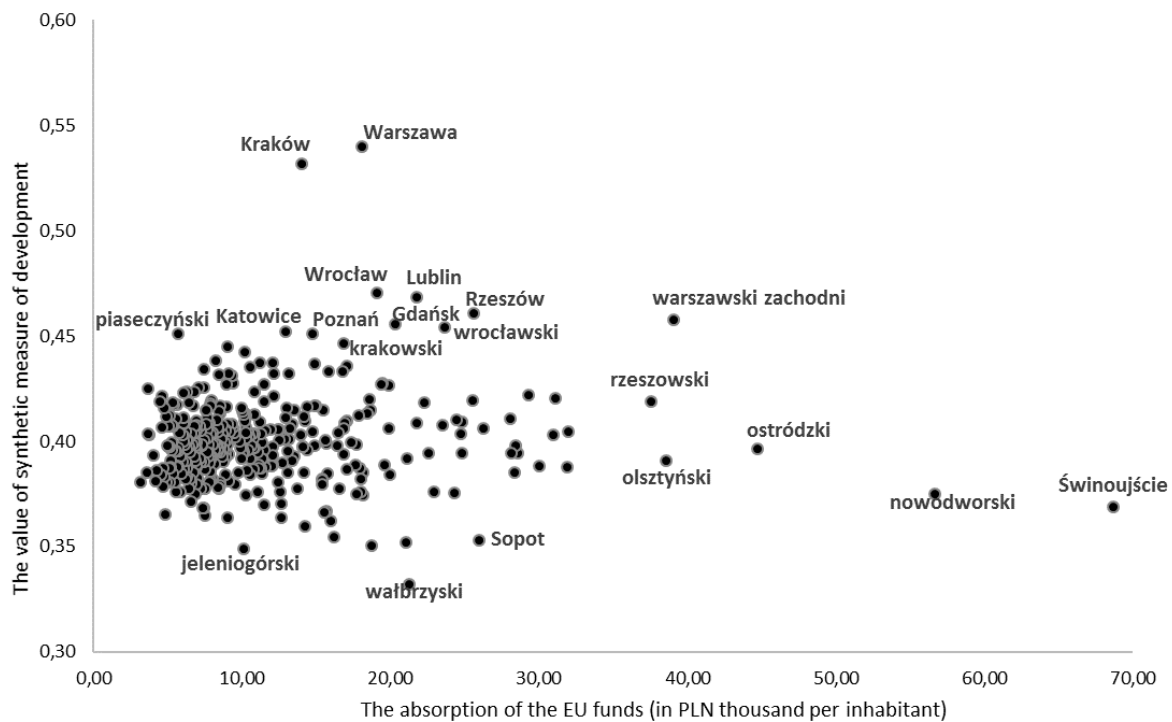


Figure 4. The change in the socio-economic level in the years of 2008-2018 and the use of EU funds in the regional dimension. Source: authors' own elaboration.

The change in the level of the socio-economic development is little correlated with the value of European funds spent in respective districts. In figure 4, the interdependencies between the change in the level of development measured by a synthetic gauge and the absorption of EU funds per capita are shown. The points representing respective districts in figure 4 are to a large extent gathered in one area, which attests to the low correlation between the variables researched. The districts that stand out against the backdrop of others are, among other: Warszawa and Kraków, in which the highest growth in the level of the socio-economic development has been registered, or Świnoujście as well as the nowodworski and ostródzki districts in which the highest level of EU absorption has been demonstrated. However in most

of the districts researched, the high absorption of EU funds has not translated into the above average growth in the socio-economic development, and the significant change in the level of development was not correlated with the use of the EU funds.

4. Conclusion

Based on the research conducted in this article, one may conclude that the absorption of EU funds stemming from structural funds as well as the cohesion fund is highly spatially varied. In Poland, from the standpoint of districts, there are significant spatial discrepancies in the use of EU funds of the 2007-2013 as well as 2014-2020 financial perspective. The highest amount of EU funds has been used in Warsaw, where the value of the funding obtained was over 180 times higher than in the zwoleński district - a unit of the lowest amount of the EU funds used. In Warsaw, the highest number of projects co-funded from community funds has also been realised – nearly 40 times more than in Skierniewice being characterised by the lowest number of EU projects.

A slightly smaller differentiation may be observed in case of the size of variables. In terms of the values of the funds engaged per one inhabitant, the absorption in Świnoujście was approximately 21 times higher than in the rybnicki district. Taking account of the value of the European funds used per capita, the absorption in the szczycieński district was approximately 28 times higher than in Legnica.

In the article, the correlation between the amount of the Community funds used in respective districts and the changes of the socio-economic level has been specified. There has, however, been no statistically significant correlation between the variables researched. It stems from the fact that the level of development is determined by many other factors, and the impact of EU funds on the development of the Polish regions shall be visible with some delay. Some regularity has been observed, in line with which both the highest values of the absorption of EU funds as well the biggest differences in the level of socio-economic development has been registered in the economically strongest cities: Warszawa, Wrocław, Kraków, Poznań and Gdańsk. A faster growth of the socio-economic development in better developed regions as well as a higher level of the EU fund absorption in economically stronger districts might equal the deepening of the differences in the regional development of Poland, which stands in opposition to the main goal of the cohesion policy, which is the convergence understood as the lowering of differences in the level of development of the respective EU regions.

The issue of spatial differentiation of the EU fund absorption and the influence of the absorption on the changes of the socio-economic level seems to be extremely intriguing and important in contemporary science and economic practice. The research conducted as well as the results obtained might constitute an inducement to take more in-depth and extended research on that matter.

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