

ABSORPTION OF EU FUNDS AND THE DEVELOPMENT OF RURAL AREAS IN LATVIA AND POLAND

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Abstract

The article presents the findings of research aiming to discover the links between absorption of European funds and the development of rural areas in Latvia and Poland. Based on statistical data and Latvian territorial development index at local level, the value of index for Polish local communities was calculated showing a slightly bigger differences in local development in Poland. Absorption of EU funds was rather concentrated in both countries and its highest level was connected with major infrastructural projects as construction of roads, motorways, etc. The use of EU funds under Cohesion Policy is not correlated with the level of development, neither in Latvia nor in Poland. The only significant negative correlation can be observed between the development and the use of funds under Common Agricultural Policy and Fisheries Policy in Latvia.

Key words: EU funds absorption, local development, rural areas, rural development level, Latvia, Poland.

Introduction

The main aim of the Cohesion Policy (also called regional policy) is to support the process of convergence in selected areas of the EU member states and improve their competitiveness. Regional policy is set to equalize inter-regional differences by supporting development processes in less developed areas, which in the new member states consist mainly of rural areas (European Commission, 2007). Regional Policy in the EU countries is delivered by three main funds: the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund (CF). Additionally, there is a high role of the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), especially in rural areas, where they improve the quality of life of residents, support agriculture, fishery and contribute to the development on a regional and local scale.

From the new member states, which joined the EU after 2004 the amount of allocated funds (in the period 2007-2013) was the highest in Poland (67 billion EUR), and one of the smallest (4.5 billion) in Latvia, although the amount of funds per capita was higher there (KPMG, 2014). European funds and their role in developing the economies is a common topic of academic studies undertaken by many authors (among others: Tetere V., 2009; Pilvere I., Bulderberga Z., 2009; Wojewódzka-Wiewiórska A., 2012), although not every aspect was a subject to detailed studies. Therefore the goal of this research was to discover links between absorption of EU funds and the development of rural areas in Latvia and Poland. In the first part of the article the differences in development level of municipalities are shown. The second part analyzes the amount of EU funds from the period 2007-2013 absorbed on a local level. At the end, the main goal of the paper is discussed with some final conclusions.

Materials and Methods

Development of rural areas was shown on the second Local Administrative Unit (LAU-2) level, in Latvia rural areas were defined as 110 municipalities (without 9 republican cities), in Poland as 2413 municipalities of all types: rural, urban and urban-rural (without 66 city districts).

The research was conducted using statistical data published in local databank by Polish Central Statistical Office (CSO) and data gathered in Regional Development Indicators Module (RDIM) by Latvian State Regional Development Agency (CSO, 2015; RDIM, 2015). As an indicator of local development level the Latvian territorial development index was used. At local level of counties (in Latvian - *novadi*) it consists of 4 elements: level of unemployment, Personal Income Tax revenues of municipalities, demographic load and population change in previous 5 years (SRDA, 2012). The author, due to data availability and comparability decided to use this indicator with consciousness that it does not include all possible components of local development. The data for Latvia were collected from the Regional development indicators module, but for Poland the source was the CSO, whose data were recalculated using the same methodology as in Latvia. To make the data comparable, score standardization was performed using the Formula 1:

$$y = \frac{x - \bar{x}}{s} \quad (1)$$

where:

y – is a specific area indicator characterizing the standardized value,

x – indicator value for territory in their specific units,

\bar{x} – arithmetic mean of the reference area group,

s – standard deviation.

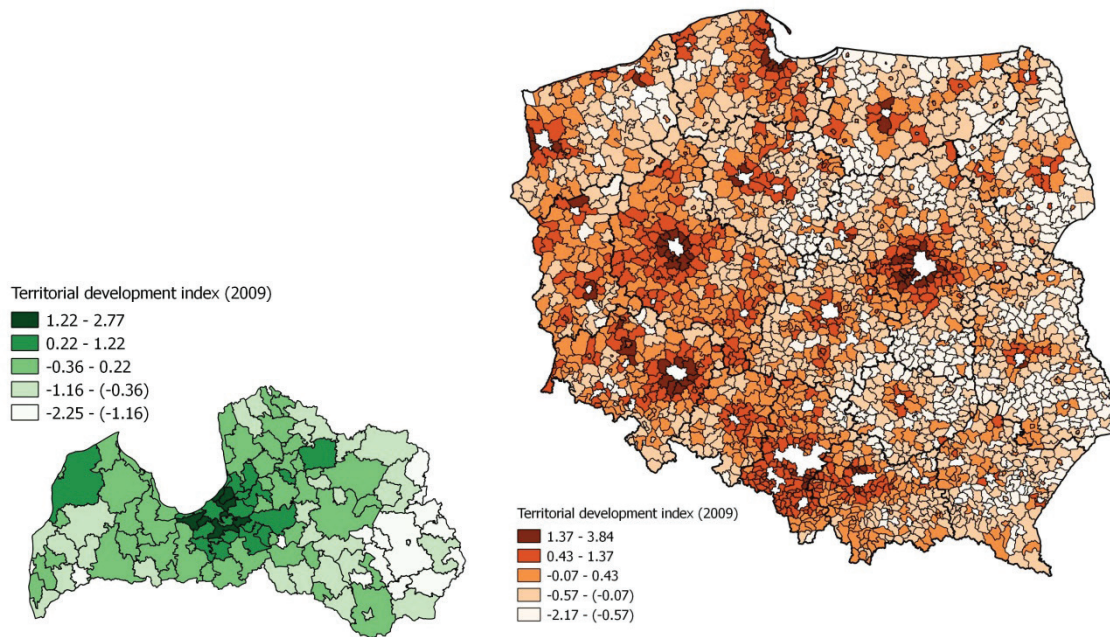


Figure 1. Level of local development in Latvia and Poland.
Source: author's elaboration based on Regional development indicators module data and calculations based on CSO data.

Further, the standardized values of part indicators were summed with the appropriate (same as for Latvia) weighting factors. In this way the territorial development index for Latvia and Poland can be compared, although data for Poland are shown as of 31 December and in Latvia they come from different months during the year. The analyzed variables are normally distributed.

The data of EU funds absorption were also collected from the above mentioned sources: for Latvia it was the sum of ERDF, ESF and CF project funding amount (actually carried out payment amounts). In addition (only for Latvia due to data availability), it was also possible to analyze the EAGGF, EAFRD and EFF funds absorption. In Poland, the total public financing value of completed projects co-financed by the European Union, implemented under the National Strategic Reference Framework 2007-2013 was taken into account. The data of CSO from National Information System (KSI SIMIK 07-13) were used. Polish data refer to projects in a territorial unit, but the designed conversion algorithm causes that the data presented in the reports should be regarded as approximate (in case of projects implemented in many municipalities, their value have equal shares in proportion in each municipality).

The period of analysis covers years 2009-2013, due to the availability of statistical data for both countries at the time of research at the beginning of the year 2015. The data was presented using tables, graphs and maps created using QGIS and Statistica software.

Results and Discussion

Development of rural areas

The level of development of rural communities was analyzed based on the territorial development index prepared by Latvian State Regional Development Agency. As of the beginning of the study period (2009), the development index took a slightly higher spread in Poland, where the highest index value was 3.84, while in Latvia only 2.77. The lowest values were similarly around -2.2.

Level of development of rural areas in Poland and Latvia has similar spatial differentiation (Fig. 1). It is high around the capitals (Warsaw and Riga) and larger cities (Poznan, Wroclaw, Gdansk in Poland, Ventspils in Latvia). This is mainly caused by high inflow of wealthy population to suburban zones. The less developed areas concentrate in central and eastern Poland (besides surroundings of Warsaw), what was caused by high demographic load in communities located in north-eastern Poland or high unemployment in surroundings of Radom. The analysis leads therefore to conclusions similar to those reached by other researchers of rural development in Poland. In Latvia, similarly, the lowest level of development characterizes the peripheral areas in the eastern and also in south-western part of the country.

Absorption of EU funds

The absorption of European funds among analyzed countries was higher in Poland (67 billion EUR) in comparison to 4.5 billion EUR in Latvia, although the amount of funds per capita and the average

project value was higher there. The mean value of conducted projects per Latvian municipality was 11.2 million EUR and 1085 EUR per inhabitant. In Poland, the average value was two times smaller and amounted 5.01 million EUR and 476 EUR per capita. According to the RDIM data, Latvian municipalities located in rural areas acquired around 1.2 billion EUR from funds implemented under the Cohesion Policy (SRDA, 2015). The largest amount of funds went to municipalities located around Riga: Mārupes nov. (development of infrastructure at the Riga international airport), Inčukalna nov. (establishment of wood pellet manufacturing plant and water system enhancing)

and Babītes nov. (reconstruction of motorways A5, A9 and A10) and around Ventspils - Ventspils nov. (reconstruction of motorway A10 and other roads) (Fig. 2). The funds use was quite concentrated: 15% of communities raised the half of all funds.

The EAGGF, EAFRD and EFF funds absorption is clearly connected with the division for central and peripheral areas and employment in agriculture. Higher amount of these funds was acquired in rural communities with lower development level, located not in the vicinity of Riga, mainly in the southern part of Latvia (Fig. 3).

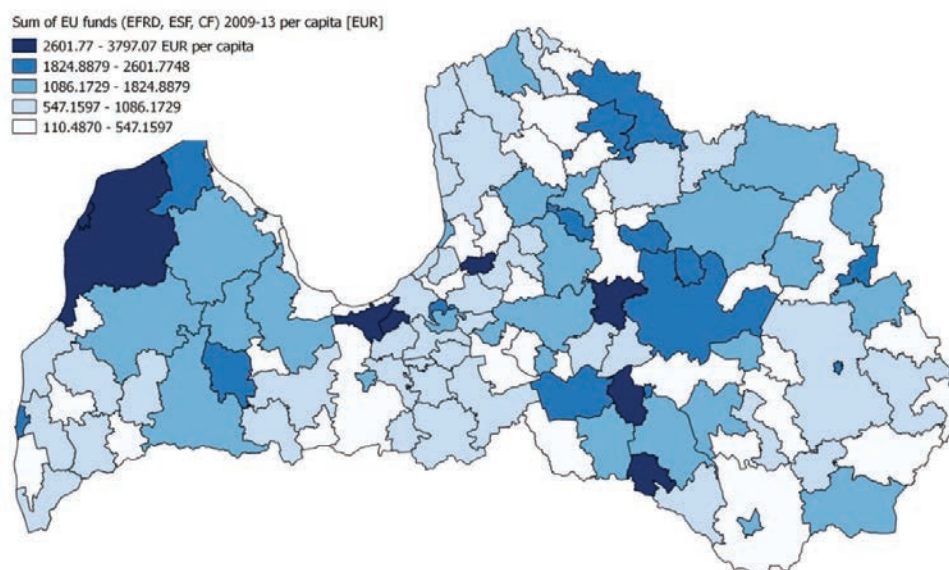


Figure 2. Absorption of EU funds in Latvian communities.

Source: author's elaboration based on Regional development indicators module data.

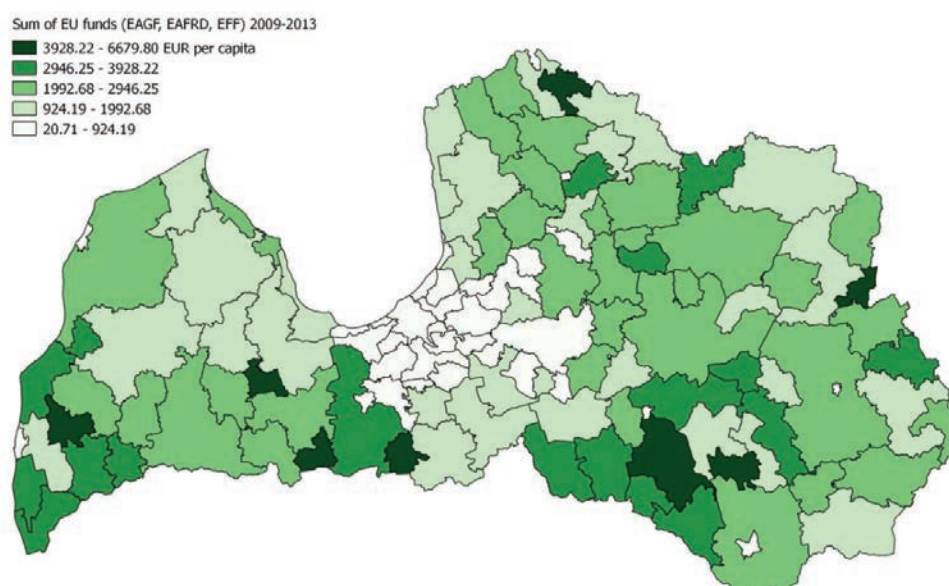


Figure 3. Absorption of EU funds for rural development in Latvian communities.

Source: author's elaboration based on Regional development indicators module data.

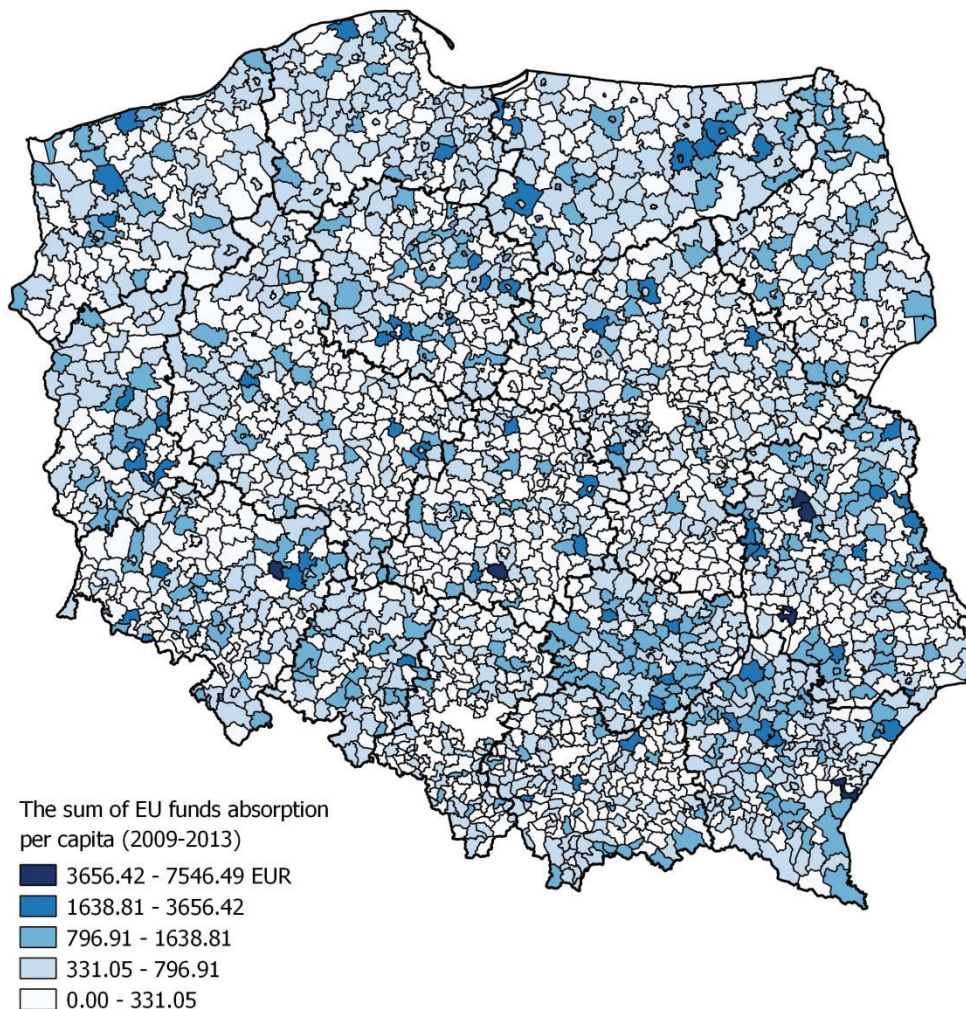


Figure 4. Absorption of EU funds in Polish communities in rural areas.
Source: author’s elaboration based on data of local databank of CSO.

In Poland 50% of funds were acquired by 13.5% of communities (Fig. 4). The total amount of conducted projects in Poland amounts 12.1 billion EUR. In Poland, no clear spatial concentration can be seen. The highest amount of funds went to the communities where major infrastructural projects were conducted. These were mainly motorway and other road constructions or railway modernization projects, as the motorway A8 near Wrocław, express road S19, infrastructure development of Rzeszów-Jasionka airport, construction of sewage or water supply systems (MID, 2015). Other types of projects were investments in wind farms and other industries: flue gas desulphurization installation in Belchatow power plant, installation of solar collectors, waste recycling plants and implementation of other new technologies.

Links between EU funds and rural areas’ development

Figures 5 and 6 show the dispersion of communities according to their level of development and the

amount of EU funds absorption per inhabitant. Also, linkages between absorption of European funds and the level of development of analyzed communities at the beginning of studied period can be seen.

On the basis of the above placed scatterplots, the use of EU funds under Cohesion Policy (ERDF, ESF, CF) seems weakly correlated with the level of development, both in Latvia and in Poland and it does not have a linear dependence. Although one can see a very slight connection between the territorial development index and the absorption of funds (the higher development, the higher absorption), the correlation coefficients are statistically insignificant. The study does not allow to state clearly if the variables are independent or not, however in Latvian communities a group of better developed units (with territorial development index >1.5) with relatively high absorption can be observed. These are mainly the *novadi* located in the vicinity of Riga, for example Mārupe, Babīte, or Stopiņi. In Poland,

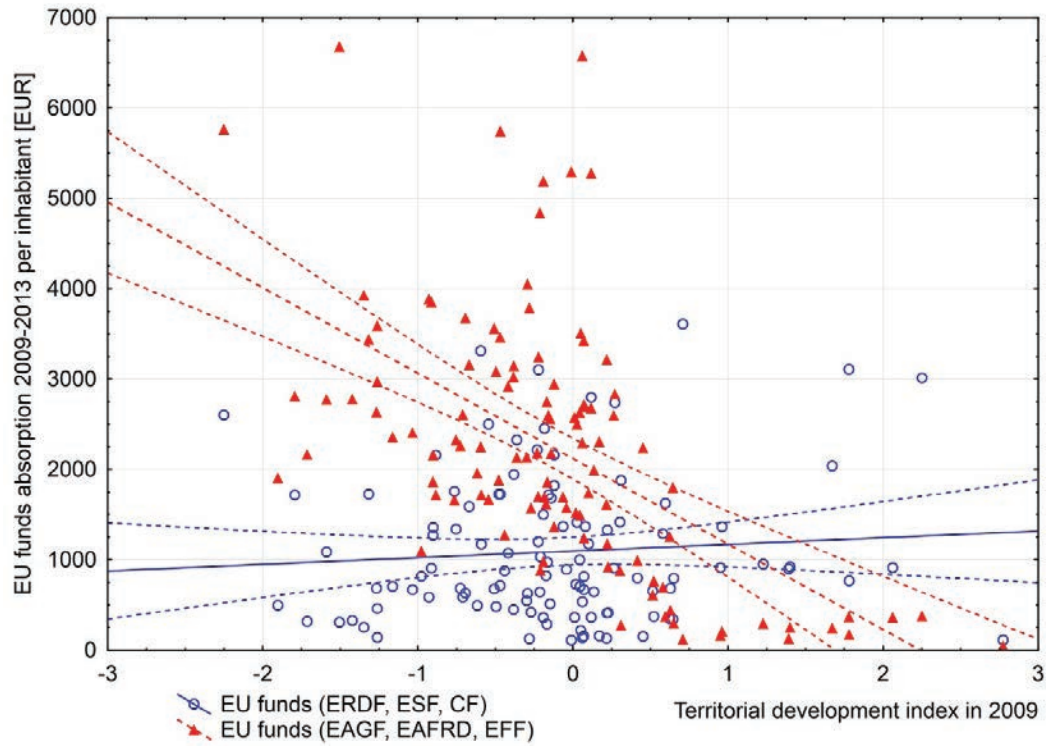


Figure 5. Absorption of EU funds and the development of rural areas in Latvia.
Source: author's elaboration based on Regional development indicators module
and data of local databank of CSO.

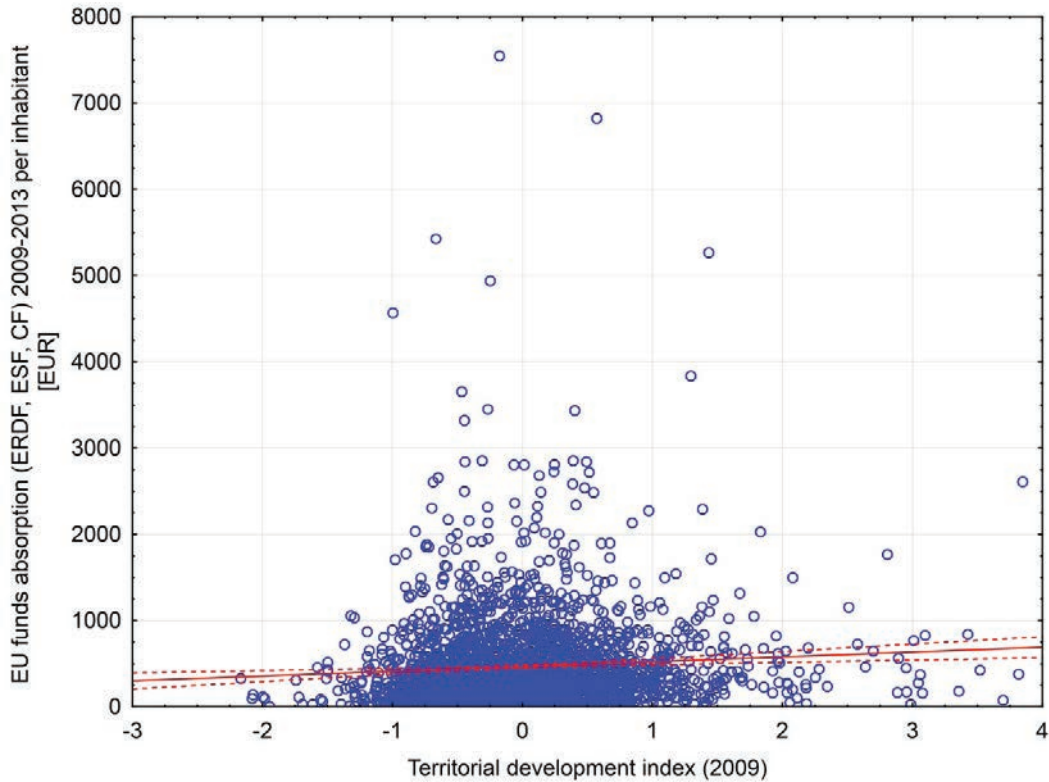


Figure 6. Absorption of EU funds and the development of rural areas in Poland.
Source: Source: author's elaboration based on data of local databank of CSO.

on the contrary, the relatively highest absorption characterized the middle-developed mainly rural communes, which were often located close to middle-size towns or cities. The only significant negative correlation ($p < 0.05$) can be observed between the development and the use of funds under Common Agricultural Policy and Fisheries Policy in Latvia. In most cases less-developed communities acquired more funds, which can be seen on Fig. 5. Due to the lack of publication of such data for local level in Poland, it was not possible to compare the situation in both countries.

Conclusions

On the basis of this study, it seems that the level of development of rural areas in both analyzed countries is comparable. The values of territorial development indicator take a similar, although higher in Poland, rate of dispersion. The level of development of rural areas in Poland and Latvia has also quite similar spatial differentiation. It is high around the capitals and larger cities and low in peripheral (mainly eastern) regions. Other conclusions are as follows:

- The definition of rural areas according to the availability of statistical data is comparable in communities in both analyzed countries.
- Latvian territorial development index because of its simplicity and easy availability of statistical data can be used to measure rural development level in other countries.
- The concentration of EU funds absorption is comparable in both countries and slightly higher in Latvia.
- The Cohesion Policy funds (ERDF, ESF and CF) go to the municipalities regardless of their level of development, and the highest amount of conducted projects characterizes the communities where major infrastructure projects were implemented.
- The funds for agricultural, fishery and rural development were (in the case of Latvia) implemented in higher values in less developed areas, a negative correlation was observed.

As the study was quite general in nature, it could be followed by further more detailed studies on differences, factors and dynamics of local development, as well as the in-depth analyses of EU funds absorption and its effects.

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