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COMPLEMENTARITY OF REGIONAL AND RURAL POLICIES? A STUDY ON REGIONAL PROGRAMMES AND COMMON AGRICULTURAL POLICY PILLAR II MEASURES IN POLAND[1]

KOMPLEMENTARNOŚĆ POLITYKI REGIONALNEJ I WIEJSKIEJ? STUDIUM PROGRAMÓW REGIONALNYCH I DZIAŁAŃ W RAMACH II FILARU WSPÓLNEJ POLITYKI ROLNEJ W POLSCE

Key words: regional policy, CAP, complementariness, regional analysis, public policy, rural development programme, regional operational programme 2007-2013, Poland

Słowa kluczowe: polityka regionalna, WPR, komplementarność, analiza regionalna, polityka publiczna, program rozwoju obszarów wiejskich, regionalny program operacyjny 2007-2013, Polska

JEL codes: R50, R58

Abstract. Building upon Mark Shucksmith et al. [2005], with respect to proposed improvements to this study by Martin Pelucha et al. [2013], work by Richardo Crescenzi et al. [2015] followed by Alan Collins et al. [2017], this empirical analysis explores the role of structural factors (i.e. place-based characteristics) in shaping EU policy. The analysis considers the shape of policy in terms of the allocation of funds, the effects of these allocations (on change in socio-economic features) and the interaction between cohesion and agricultural policy in the context of regional development in Poland in 2007-2013 on a local (NUTS4) level. Results show that a significant relationship between aggregated (total) expenditure from CP regional and Pillar II CAP measures has not been detected in the programming period under consideration. Rural and regional policy instruments in 2007-2013 were complementary to each other, but also strongly related to the characteristics of the region (such as size, population, farmland) and, therefore require greater adaptation to development opportunities and limitations. It was also shown that some synergy of the impact of both programmes can only be indicated in the case of development of technical infrastructure (ie. water supply systems).

Introduction

The EU approach to regional policy has been inspired by different positions, i.e. the 2004 Report *An Agenda for a Growing Europe* [Sapir et al. 2004] reached conclusions that were more in accordance with 'spatial-blind' policies arguing that the EU Cohesion Policy should primarily target member states rather than subnational regions. However, on the Cohesion Policy Reform, Fabrizio Barca [2009, p. 7] pointed out that "there is a strong case, rooted in economic theory and in a political interpretation of the present state of the European Union, for the Union to allocate a large share of its budget to the provision of European public goods through a place--based development strategy aimed at both core economic and social objectives".

The resulting need to embed the planning process of all EU policies in the context of their regional impact is a challenge for successive reforms of Common Agricultural Policy (CAP) and Cohesion Policy (CP). It is connected with the optimal allocation of funds under both policies with an emphasis placed on demarcation lines that determine mutual complementarity of activities. The discussion on the future shape of EU policies is related to the need of developing an evidence-based policy recommendation, based purely on scientific analysis, which

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encompasses practical commentary which will constitute the premise for better design of rural and regional policy [Barca et al. 2012].

Which paradigm prevails is still questioned and only a limited amount of research has currently been developed on this crucial issue [Collins et al. 2017]. Building upon the approach by Richardo Crescenzi et al. [2015], this empirical analysis explores the role of structural factors (i.e. place-based characteristics) in shaping EU policy. The analysis considers the shape of policy in terms of the allocation of funds, the effects of these allocations (on change in socio-economic features) and the interaction between cohesion and agricultural policy in the context of regional development.

Research material and methodology

The paper will focus on the findings related to the study specifically dealing with the 'spatial determinants of policy performance and synergy'. The synoptic view confirms that a deeper analysis of the underlying processes linking distinct aspects of the complex phenomena under consideration is required in order to unveil the main driving factors and contribute to a better identification within the EU discourse. A deeper understanding along with a stylised modelling of the main mechanisms would contribute to answering crucial questions regarding the relationship between EU policies [Chmieliński et al. 2018].

As other studies have shown, broadly defined synergy and trade-offs between different policies have turned out to be relatively small. This study was conducted on a one-country level and concerns cohesion policy instruments and CAP having a bearing on socio-economic development at a regional and local level [Charron et al. 2013, Suddaby, Esposti 2008, Greenwood 2005, Lagendijk, Cornford 2000, Roberts 1993].

The studies mainly show a weak connection between policy tools. This is the outcome of a number studies, i.e. Richardo Crescenzi and Mara Giua [2014], R. Crescenzi et al. [2015], Alan Collins et al. [2017], Sascha Becker, Peter Egger, Maximilian von Ehrlich [2010], Hale Akbulut [2014] arguing that there is weak proof of synergy/trade-offs between CAP and Cohesion Policy at an EU level. Positive per capita GDP growth effects of Objective 1 transfers have been noted, but with no significant employment growth effects and no statistically significant effect of CP on economic growth. Moreover, EU policy areas and their degree of compatibility with the objective of EU territorial cohesion crucially depends upon appropriate 'place-based' allocation mechanisms and structurally disadvantaged regions attract synergy between overall rural policy and cohesion policy expenditure.

The study is based on the approach of Mark Shucksmith et al. [2005], and above mentioned comments to this study by Martin Pelucha et al. [2013], motivating the need for national-level rather than an EU-wide approach in analyzing CAP impact on regions. The authors argue that the relative importance of rural development measures varies widely between EU member states – having different national priorities and national budget constraints. Moreover, the study needs to be extended by other relevant socio-economic indicators and these are rather available in national public statistics, than at an EU level. This calls for county-level analysis. M. Pelucha et al. [2013], also suggest that statistical analyses should contain data on actual payments, not budget allocations (as presented in the study by M. Shucksmith et al. [2005]), which could lead to the measurement of the real impact of public support in regions.

In this paper, analysis covered the real expenditure of funds for individual priority axes in the CAP Rural Development Programme 2007-2013 for Poland (RDP) and 16 Regional Operational Programmes 2007-2013 (ROPs) under the Cohesion Policy, in the period of 2007-2015 (in accordance with the N + 2 rule), and data reflecting the change in socio-economic features at the local (district, NUTS4) level in this period. Data for ROPs was provided by SIMIK 2007-2013 National Information System of the Ministry of Investment and Economic Development [EFP 2007-2013], data on RDP expenditures, as well as socio-economic indicators were collected from the Local Data Bank of the Statistics Poland office [LDB 2007-2015]. Both programmes

Table 1. Expenditures for RDP and ROPs per capita 2007-2015

	Symbol	Variable	Expenditure per capita [PLN] 2007-2015
Regional Operational Programmes	RPO_1	Theme 1. R&D, Technology, Innovation, Entrepreneurship	972.1
	RPO_2	Theme 2. Information society	169.8
	RPO_4	Theme 4. Environment	357.8
	RPO_6	Theme 6. Culture, Tourism, International Cooperation	287.8
	RPO_7	Theme 7. Cities, towns, spatial revitalization	335.8
	RPO_8	Theme 8. Technical infrastructure, incl. transportation	986
	RPO_10	Theme 9-10. Education and Human capital	94.7
	RPO_11	Theme 11-12. Health care and Social infrastructure	162.8
	RPO	Total amount RPO	3428.7
Rural Development Programme	PROW_1	Axis 1. Improving the competitiveness of the agricultural and forestry sector	865.1
	PROW_2	Axis 2. Improvement of the environment and the countryside	572.6
	PROW_3	Axis 3. Quality of life in rural areas, diversification of rural economy	376.3
	PROW_4	Axis 4. LEADER	87.8
	PROW	Total amount PROW	1901.8

Source: own calculation based on SIMIK database [EFP 2007-2013] and Local Data Bank [LDB 2007-2015]

directly influence socio-economic features at the level of rural regions in Poland [Chmieliński et al. 2018]. The Pearson correlation coefficient was used to assess the relationship between the level of expenditure for RDP and ROP per capita and selected indicators describing the level of economic, social and demographic development of local government units at district (NUTS 4) level. The aggregated relative values of these expenditures are shown in table 1.

The research problem we analyse in the paper is connected to the question concerning possible complementaries in rural and regional policies, i.e. complementarity of the instruments of the second pillar of CAP and regional development programmes in Poland during the implementation period 2007-2013. This would lead to the identification of areas in which they can be complementary by responding to specific problems of the EU.

Research results

Broadly defined synergy and trade-offs between different policies has turned out to be relatively small. The study was conducted at a one-country level and concerned cohesion policy instruments and CAP having a bearing on socio-economic development at a regional and local level. The complementarity of instruments of the second pillar of CAP (Rural Development Program 2007-2013 for Poland) and the cohesion policy (16 Regional Operational Programs in 2007-2013) was examined in terms of impact on selected socio-economic features in the spatial dimension (tab. 2).

The correlation analysis showed that regional policy (regional programmes, ROPs) and policy towards rural areas (the second pillar of CAP) in 2007-2013 were complementary in terms of links with the features of socio-economic development of individual regions. The direct correlation between funds from ROP and RDP was close to zero, which indicates that these instruments influenced the development of different socio-economic features. This was confirmed by a more detailed investigation of the relation of expenditure under the framework of each policy instrument and the change of indicators characterizing the region and its socio-economic life.

Table 2. Pearson correlation coefficients of socio-economic indexes and RDP/ROP expenditures per capita in districts (NUTS4)

Class	Name	Pearson correlation coefficients	
		RDP	ROP
Economic activity	Newly registered economic entities (average total number 2008-2016)	-0.163	0.739
	Newly registered economic entities (on 10 thous. population, average 2008-2016)	-0.331	0.524
	Newly registered economic entities (average change 2008-2016)	0.207	0.089
	Economic entities (on 10 thous. population, average 2008-2016)	-0.465	0.529
	Economic entities (average change 2008-2016)	-0.067	0.402
	Natural persons conducting economic activity (average total number 2008-2016)	-0.182	0.787
	Natural persons conducting economic activity (on 10 thous. population, average 2008-2016)	-0.374	0.430
	Natural persons conducting economic activity (average change 2008-2016)	0.383	0.004
Demography	Age dependency ratio (average value 2008-2016)	-0.293	0.316
	Age dependency ratio (average change 2008-2016)	-0.649	0.350
	Unemployment rate (average value 2008-2016)	0.134	-0.270
	Unemployment rate (average change 2008-2016)	-0.104	0.251
	Net migration rate (migration balance) (average value 2008-2016)	0.144	0.205
	Population density in people on km^2 (average value 2008-2016)	-0.566	0.533
Agriculture	Area of agricultural land [ha] (2005)	0.907	-0.196
	Share of agricultural land in total area (2005)	0.415	-0.155
Technical infrastructure	Length of the sewerage network [km] (average value 2008-2016)	0.083	0.523
	Density of the sewerage network on 100 km^2 (average value 2008-2016)	-0.562	0.486
	Length of the sewerage network [km] (average change 2008-2016)	0.229	-0.127
	Length of the water supply network [km] (average value 2008-2016)	0.672	0.243
	Density of the water supply network on 100 km^2 (average value 2008-2016)	-0.446	0.477
	Length of the water supply network [km] (average change 2008-2016)	0.013	0.067
	Length of the gas network [km] (average value 2008-2016)	-0.007	0.501
	Density of the gas network on 100 km^2 (average value 2008-2016)	-0.509	0.519
	Length of the gas network [km] (average change 2008-2016)	0.164	-0.018
	Share of population using the water supply network (average value 2008-2016)	-0.228	0.091
	Share of population using the sewerage network (average value 2008-2016)	-0.636	0.325
	Share of population using the gas network (average value 2008-2016)	-0.592	0.356
Society and human capital	Voter turnout in parliamentary elections in 2015	-0.346	0.491
	Voter turnout in the EU accession referendum in 2003	-0.552	0.395
	Share of ‚yes' votes in the EU accession referendum in 2003	-0.634	0.192
	Number of people with at least secondary education (2011)	-0.231	0.839
	Number of people with higher education (2011)	-0.233	0.788
	Share of people with at least secondary education (2011)	-0.666	0.436
	Share of people with higher education (2011)	-0.561	0.636
Size	Population (average value 2008-2016)	-0.154	0.831
	Place in the ranking in terms of area	-0.101	-0.303
	Place in the ranking in terms of population	0.228	-0.403
	Area [km^2]	0.760	-0.180

Source: see tab. 1

The study showed that in the case of RDP (rural policy), there has been a positive correlation between its outlays, with the size (area) of the administrative unit; the area of agricultural land in the district, the growth rate of the number of natural persons conducting economic activity, total incomes and expenditures of local government units and the level of technical infrastructure development.

It should be emphasized that in the case of links between the development of socio-economic features of the region and per capita expenditure related to the implementation of the rural development policy are strongest in the case of districts with a large share of arable land. This is related to RDP expenditure on agri-environmental measures and payments to farms located in less-favoured areas (LFA). It is interesting to note that in addition to Axis 4 RDP – Leader, expenditure within all remaining RDP axes challenged a very strong relationship with the size of land in use of farms in the total area of a territorial unit. In addition, a positive impact of RDP funds on some aspects of local development related to the development of economic activity was observed, especially in the case of average change 2008-2016 in the number of natural persons conducting economic activity. The analysis of the survey data clearly indicated positive links between RDP expenditure and the development of a water supply network and a gas network in rural areas.

In the case of ROPs (regional programmes), there were positive relationships between expenditures under ROPs instruments and district size, measured by population number. This was furthermore characteristic in the economic activity category, the level of investment expenditure (but to a lesser extent) as well as the state of technical infrastructure development and the level of development of human and civic capital. There was also a positive impact of support under ROPs on the decrease in unemployment at the district NUTS4 level (i.e. a negative correlation between expenditure and local unemployment rate).

In particular, it should be emphasized that regional programmes, due to their quite extensive construction, covering various issues of socio-economic life at a regional level, were relatively more often reflected in their financial expenditure in the changes of selected socio-economic indicators.

ROPs positively influenced the development of education (changes in the number of people with secondary and higher education), the increase in the number of natural persons conducting economic activity, or increasing the number of new business entities.

Due to the method of calculating the allocation of regional policy, the study showed a natural relationship between the volume of outlays from ROPs and the number of inhabitants in the region. It was shown that some synergy of the impact of both programmes can be indicated in the case of the development of water supply systems in the regions. Both programmes contributed to the development of the length of the water supply network (absolute increase in km). Both programmes related to the size of the district (especially ROPs) and the amount of agricultural land (RDP) and the number of inhabitants in this area.

The study confirms a high level of the synergy effect of their impact. Similar conclusions were drawn from research conducted with representatives of regional self-government authorities, who pointed to the good organization of the planning process, social consultations and inter-sectoral cooperation in the process of creating policy documents in the region [Chmieliński et al. 2017]. Other studies of this type indicate the need to maintain and increase "place-specific' processes in the course of designing non-governmental solutions for economic development policy at a regional level (including those related to rural development). Drawing attention to regional specificity and unique local needs may be a key factor in further improving the impact of EU policies on reducing regional disparities and improving the quality of life and the level of convergence in European regions [see Barca et al. 2012].

Conclusions

More flexibility during the implementation of regional programmes is necessary to allow the adaptation of actions to changes in regional circumstances based on regular public consultations on regional emerging issues that could result in a reorientation of regional intervention undertakings during the programming periods. On the example of Poland, it was underlined that rural and regional policy instruments in 2007-2013 were complementary of each other, but also strongly related to the characteristics of the region (such as size, population, farmland) and, therefore require greater adaptation to development opportunities and limitations. As a result, in the upcoming programming period, integration support in the process of planning the instruments of both policies may result in: the better targeting of positive support effects, improve the perception of policies by inhabitants and support the multiplication and use of local resources.

This is also evidence to support the presence of "pro-cohesion" policies that exert a cumulative impact by focussing on structurally disadvantaged regions. Thus, careful coordination between policies would increase the possibility of cumulative impacts of EU funds.

EU support policies should be better integrated with the MSs own policies and structural reforms, taking into account country characteristics as well as regional specificity, and ensure that the policy mix is well tailored to developmental needs.

Whilst place-based development is already part of cohesion, rural and urban policies, they have now been well linked to each other. Improving integration between policies can be achieved by cooperation in designing policy programmes, so that planned measures ensure maximization of synergy and create additional value [Collins et al. 2017].

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Streszczenie

Celem artykułu jest analiza roli czynników strukturalnych (tj. cech charakterystycznych dla danego miejsca) w kształtowaniu polityki UE. Oparto się na metodyce Marka Shucksmitha i współautorów [2005] oraz komentarzu Martina Pelucha i zespołu badawczego [2013] do tego badania. Wykorzystano także podejście prezentowane w pracy Richardo Crescenzi i jego zespołu badawczego [2015], a następnie przez Alana Collinsa i współautorów [2017]. W analizie uwzględniono także dane dotyczące alokacji funduszy regionalnych (regionalnych programów operacyjnych) oraz wiejskich (II filara WPR), a także skutków tych alokacji w odniesieniu do cech społeczno-ekonomicznych. Zbadano stopień interakcji (komplementarności) między polityką spójności i polityką rolną w kontekście rozwoju regionalnego w Polsce w latach 2007-2013 na poziomie lokalnym (NUTS4). W rozważanym okresie nie wykryto istotnej zależności między zagregowanymi (całkowitymi) wydatkami instrumentów polityki regionalnej (programów regionalnych) i programu rozwoju obszarów wiejskich. Instrumenty polityki wiejskiej i regionalnej w latach 2007-2013 były względem siebie komplementarne, ale także silnie powiązane z specyficznymi cechami regionu (wielkość populacji, użytków rolnych), a zatem wymagały większego dostosowania do możliwości i ograniczeń rozwoju. Wykazano również, że efekty synergii oddziaływania obu programów można wskazać tylko w przypadku niewielu obszarów, w tym m.in. w zakresie rozwoju infrastruktury technicznej (wodociągowej).

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