Lela Tijanić Juraj Dobrila University of Pula Faculty of Economics and Tourism "Dr. Mijo Mirković" P. Preradovića 1/1, 52100 Pula, Croatia letijan@unipu.hr Phone: +38552377063 UDK: 339.9:336 ](4-6 EU) Preliminary communication

Received: September 17, 2017 Accepted for publishing: November 16, 2017

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License



# REALISATION OF THE EUROPE 2020 STRATEGY AND THE STRUCTURAL FUNDS ALLOCATION BY THEMATIC FIELD OF INTERVENTION IN EUROPEAN REGIONS

#### Abstract

The European Union Cohesion Policy provides financial support through EU funds and gives a unique opportunity for member states and their regions to successfully combat the obstacles of a challenging environment as well as to promote its (smart, sustainable, inclusive) growth and development. In the last programming period of 2014-2020 the Policy has been aligned with the Europe's strategy for growth and employment, Europe 2020. The regional allocation of funding has changed, where a more focused thematic concentration of financial resources is needed. There are (constant) discussions about measuring the progress towards meeting the objectives of the Europe 2020 which is connected with the implementation of the Cohesion Policy.

The aim of this paper is twofold: firstly, to give a brief overview of the connection between the reformed Cohesion Policy and strategy Europe 2020 in the last programming period of 2014-2020 and secondly, to empirically analyse whether the allocation of EU funds regarding different thematic fields of intervention can be connected with the success in the realization of the strategy Europe 2020. The findings suggest that the heterogeneity in the realisation of Europe 2020 on a regional level is connected with the structure of EU funds allocation. The conclusions of this paper can be useful in monitoring the achievement of Europe 2020, in evaluating the results and possible recasting of the Cohesion Policy.

Keywords: Cohesion Policy, strategy Europe 2020, EU funds

### 1. Introduction

The European Union (EU) Cohesion Policy has become one of the most important EU policies. This is seen through its role in the European multi-level (economic) governance process, development strategic planning, its share in the EU budget and more importantly, through multiplicative effects of its financial instruments that have been used in different thematic areas in the real economy across EU member states to achieve regional and national developmental goals. The widespread and numerous impacts of the projects financed through EU funds<sup>1</sup> confirm that this policy opens an opportunity for member states and their regions to unleash their resource potential as well as to combat the obstacles of the (post-)crisis environment. In the crisis year, when public investment declined, the importance of investments through EU funds increased (European Commission - Directorate-General for Regional and Urban Policy, 2014)<sup>2</sup>, while at the time when the signs of recovery are seen, the European Funds offer significant opportunities to support growth, employment and structural transformation in the member states and regions which still face fragile growth and structural weaknesses (European Commission, 2016)3.

This important "position" and the development of the Cohesion Policy have a long history. It was faced with reforms that have been implemented in order to respond to integration changes, achieve cohesion and a more focused implementation of the policy (seen through measurable effects on development). One of the reforms in the last programming period (2014-2020) has tried to connect the Cohesion Policy with the main EU strategy for growth and employment, Europe 2020, and with its goals of "smart, sustainable and inclusive growth". In line with this, the Cohesion Policy is guided by a common strategic framework which has to be implemented across EU member states and regions, through the system of multi-level governance, connecting regions and EU member states' needs with the goals of Europe 2020. EU funds represent important instruments in the described process. Even though this can be highlighted as a positive step to achieve better control of the Policy and the progress towards meeting the objectives of Europe 2020, there are discussions about measuring the effects, constant need to evaluate the results as well as the factors which can have an influence on the final outcomes.

Namely, due to the failure to achieve goals of the previous Lisbon strategy (predecessor of Europe 2020), the differences regarding the impacts of the Cohesion Policy across EU member states and regions, the lack of concrete economic effects in some of the EU member states that have absorbed significant amounts of EU funds or in less developed regions (which can be seen also through the so-called "regional policy paradox"), together with the necessity to evaluate the realisation of the Europe 2020 strategy, there arises the motivation of the policy ac-

tors and researchers to determine the possible obstacles in the implementation of the policy as well as in achieving the goals set in Europe 2020. This furthermore opens the question of the investment structure that can be analysed through allocation of EU funds by thematic field of intervention. It is assumed that the regional structure of EU funds investments will have a significant influence on the realisation of the strategy Europe 2020. This is also important at the time when it is necessary to start planning Cohesion Policy post 2020.

The aim of this paper is to explain the relationship between the reformed Cohesion Policy and the strategy Europe 2020 in the last programming period of 2014-2020 and, by using discriminant analysis, to empirically determine whether the structure of regional allocation of EU funds regarding different thematic fields of intervention can be connected with the realisation of the strategy Europe 2020. This approach contributes to previous studies which analyse the success in the realisation of the strategy Europe 2020 as well as the studies on the structure of EU funds investing. Theoretical background that deals with the Cohesion Policy reforms and measuring the progress towards Europe 2020 will be synthesised and elaborated in the next section. The described empirical analysis is presented in the third section, while the final section brings conclusions.

# 2. Theoretical Background

# 2.1 Reforms of the Cohesion Policy – towards the Strategy Europe 2020

Cohesion Policy, also known as the EU regional policy, represents different regional and urban development programmes, associated specific policy actions and interventions in conjunction with EU funding (European Commission - Directorate-General for Regional and Urban Policy, 20144; Mc-Cann, Varga, 2015). This policy contributes today to the achievement of EU policy objectives and complements EU policies such as those dealing with education, employment, energy, the environment, the single market, research and innovation (European Commission - Directorate-General for Regional and Urban Policy, 2017b)<sup>5</sup>. In the last programming period, 2014-2020, the main instruments of the Cohesion Policy, the ESI Funds, are directed towards objectives of the Strategy Europe 2020, the Investment Plan for Europe and to Commission's priorities, as can be seen in European Commission – Directorate-General for Regional and Urban policy (2015a)<sup>6</sup>. In the "Winter Package of the European Semester", which was published by the European Commission as the result of the analysis of the economic and social situation in the member states, the role of ESI Funds in the EU economic governance process is affirmed (European Commission – Directorate-General for Regional and Urban Policy, 2017a)<sup>7</sup>. The contribution of the Cohesion Policy in producing tangible results can be observed through indicators presented on the open data portal of the European Commission (2017c)<sup>8</sup>.

But the "story" of EU regional policy begins in 1957 with the Treaty of Rome that highlights the need to tackle regional disparities, a goal which still has a central place in the EU regional policy. The European Commission – Directorate-General for Regional and Urban Policy (2014)<sup>9</sup> describes in more detail the evolution of the Cohesion Policy, where it can be seen that the nature of policy has developed and changed, from the national focus to greater involvement of regional and local policy actors. The significant change towards subnational and European influence was recognized in 1988, 1989, after the integration of the Structural Funds to achieve economic and social cohesion.<sup>10</sup>

Enlargements of the EU with diverse member states and their regions with lower levels of development, as well as further economic challenges have triggered new directions in the EU regional policy, which have resulted in the increase and changes in the distribution of funding for the Policy, more targeted investments, incorporation of the key principles of the regional policy, multiannual programming, the rules on partnership, introduction of territorial cohesion, the need for better evaluation and the implementation of different instruments to facilitate the realisation of the projects. Through the time, the Cohesion Policy has been aligned with the overall policy agenda of the EU. In the programming period 2014-2020 this is recognized in the need for stronger conditionality of the Cohesion Policy, as well as through the necessity for consolidation of outputs and results at the European level. It is planned that member states and regions will direct the funds towards defined investment priorities aligned with the Europe 2020 strategy and its thematic objectives, but according to their developmental needs.

The European Commission – Directorate-General for Regional and Urban Policy (2014)<sup>11</sup> furthermore

describes that the focus of tackling unemployment, mobility of workers, industrial reconversion and modernisation of agriculture has been extended to include infrastructure problems, business support, innovation, education, environmental quality, combating climate change, poverty, social inclusion etc. which was seen in the allocation of funding between thematic objectives, different across the European regions. Dumciuviene, Stundziene (2015) conclude that the right distribution can be an important factor determining the continuity of the integration process and that the EU funds should be used purposefully and efficiently to ensure that the developed mechanisms will meet the national priorities. Crescenzi et al. (2017) analyse 15 EU regions, beneficiary areas, and confirm that the structure of expenditures, concentrations of funding and effective targeting are important for the effectiveness of Cohesion Policy interventions in regional growth.

Even though there are numerous examples where the impacts of EU funds were positive and have contributed towards achieving the goals of the EU funds on national and regional levels (Medeiros, 2014), there are also examples where the Funds do not target the problems regarding the defined goals and priority areas, thus hampering the successful restructuring of regional economy (Kaufmann, Wagner, 2005), which may have implications on the realisation of Europe 2020. This motivates further investigations of the causes that have led to differences in the results. Based on previous theoretical elaboration, the reason can be seen in lacking the right approach to interventions, where the developmental goals and the structure of investments are not interconnected. Here arises the main research question: is the structure of EU funds investments significant for the realisation of Europe 2020? Before investigating the connection between the structure of EU funds (observed in this paper through thematic allocation of EU funds) and the realisation of Europe 2020, a theoretical overview on measuring the progress towards Europe 2020 to define adequate framework for performing the analysis is given in the next section.

# 2.2 Measuring the Progress towards Europe 2020 — Multi-level Monitoring

The importance of the strategy Europe 2020 and the need to monitor its implementation is seen in a number of papers which present the observations about the Strategy, its concept, usefulness, criticism, realisation or possible recasting (e.g. Erixon, 2010; Budd, 2013; Petru, Dobrescu, 2014; Makarovič et al., 2014; Stec, Grzebyk, 2016). Even though there are some criticisms, the European Commission (2017a)<sup>12</sup> presents the results of public consultations that have shown Europe 2020 is still seen as an appropriate framework and it decided to continue with its implementation and monitoring.

There has also been a growing number of studies on the relationship between regional development and the Europe 2020 strategy (Eurostat, 2016)13. Mc-Cann (2015) writes about the Europe 2020 strategy and its regional and urban dimensions, where it is highlighted that the multi-dimensional approach in the Europe 2020 strategy must be observed with regional and local challenges, while confirming that Cohesion Policy plays a significant role in driving Europe 2020. In the Eurostat Regional Yearbook (Eurostat, 2016)<sup>14</sup>, the importance of territorial dimension for Europe 2020 is explained. One of the important documents in this context, the Athens Declaration<sup>15</sup>, "called for the introduction of the monitoring system for Europe 2020 at regional level, which requires adequate statistical basis at regional and local levels and possible development of regional progress indicators" (Eurostat, 2016: 24)<sup>16</sup>. Eurostat (2016)<sup>17</sup> furthermore confirms the arising need to align and match regional funding with the Europe 2020 strategy and to monitor the regional performance according to Europe 2020 targets.

In observing the implementation of the strategy Europe 2020 on the regional level, different approaches, indicators and methods are used. Here it can also be useful to take into account the possibilities to monitor the results on integration and national level, which must be complemented with the regional evaluations. The European Commission (2017a<sup>18</sup>, 2017b<sup>19</sup>) describes the implementation, monitoring of the strategy and gives an overview of the Europe 2020 targets on the EU member states level. It has an important role in analysing the EU member states' efforts towards the targets (which is seen in the context of the European Semester, explained in European Commission, 2017d<sup>20</sup>). The EU statistical office, Eurostat (2017a<sup>21</sup>, 2017b<sup>22</sup>, 2017c<sup>23</sup>), publishes Europe 2020 indicators on the national and EU level, as well as cohesion indicators, grouped according to the objectives of Europe 2020, at the sub-national level. Analyses of the available EU Member States regional indicators relating to a range of Europe 2020 indicators are presented in the Eurostat (2016)<sup>24</sup>, where diverse patterns of socio-economic development with respect to the targets are confirmed.

The Europe 2020 Monitoring Platform (European Committee of the Regions, 2017)<sup>25</sup> is a network of regions and cities that was set by the European Committee of the Regions, to monitor the implementation of the Europe 2020 strategy at regional and local levels. There can be found monitoring reports on Europe 2020 and the European Semester, territorial analysis of the main documents of the European Semester, good practices, guidelines in order to explain how local and regional units can contribute to the implementation, proposals of the Steering Committee of the Committee of the Regions' Europe 2020 Monitoring Platform and other important publications. The mentioned publications imply that regions have a significant role in accomplishing the Europe 2020 targets.

In Eurostat (2016)<sup>26</sup> it is synthesized that Joint Research Centre and the European Commission's Directorate-General for Regional and Urban Policy have released studies based on composite indicators linked to the socio-economic performance of EU regions. These studies are also important because some of them represent regional analyses in relation to the Europe 2020 strategy (Athanasoglou, Dijkstra, 201427; Dijkstra, Athanasoglou, 2015). Athanasoglou, Dijkstra (2014)<sup>28</sup> develop a composite indicator "Europe 2020 Regional Index" to measure regional progress in meeting the objectives of the Europe 2020. According to the authors, the index is developed on regional NUTS (Nomenclature of territorial units for statistics) 2 level to obtain a spatially refined appreciation of the strategy's goals and future challenges. They hope that European policy makers will find the Regional Europe 2020 Index useful in gauging current regional performance with respect to Europe 2020 objectives, and designing the next steps of Europe 2020's successful implementation (Athanasoglou, Dijkstra, 2014: 39)<sup>29</sup>. Methodologically, the index follows the approach of the previous Lisbon Index (Dijkstra, 2010), which is recognized as relevant to the Europe 2020 index together with the Competitiveness indices (Dijkstra et al., 2011; Annoni, Dijkstra, 2013<sup>30</sup>; Annoni et al., 2017). Among other, the results have confirmed significant inter-regional heterogeneity of Europe 2020 performance. Dijkstra, Athanasoglou (2015), in the final version of the Europe 2020 Index extend the

analysis to three composite indicators to measure the progress of EU countries, regions and cities to the objectives of the Europe 2020 strategy.

Valuable measuring based on Europe 2020 indicators can be found in the following works. By using selected methods of multivariable objects hierarchy and classification, Klonowska-Matvnia, Sasin (2015) have used indicators described in the framework of the Europe 2020 strategy to isolate groups of EU countries with similar development levels. The significant differences between the new and old member states due to the level of fulfilment of the aims of Europe 2020 were confirmed by using the zero unitarization method in Barcerzak (2015). Pasimeni, Pasimeni (2016) perform evaluation of countries' performances using the Europe 2020 Index and by using multiple linear regression analysis confirm the importance of formal and informal institutions and especially institutional variables, such as good governance and social capital. The territorial dimension of the Europe 2020 strategy can be seen in the ESPON (2013)<sup>31</sup>. Through different indicators (of smart, sustainable and inclusive growth), ESPON Atlas illustrates the differentiated regional contributions to the mentioned Strategy and confirms that achieving a smart, sustainable and inclusive growth has a territorial dimension.

In analysing the implementation of Europe 2020 on regional level, cohesion indicators can be also useful. Rakauskienė, Kozlovskij (2013) explain that the indicators of economic, financial and technological/ innovative cohesion can be used in the analysis of the economic aspect of cohesion. In the Sixth report on economic, social and territorial cohesion (European Commission - Directorate-General for Regional and Urban Policy, 2014)<sup>32</sup>, separate chapters (among others) discuss the results regarding smart, inclusive and sustainable growth and how Cohesion Policy made a contribution to these goals, where different regional aspects (indicators, impacts) are observed. The Seventh progress report on economic, social and territorial cohesion also shows urban and regional dimensions of the Europe 2020 strategy (European Commission, 2011)<sup>33</sup>.

This overview of measuring the progress towards Europe 2020 has confirmed that it is important to monitor the realisation of the Strategy on the regional level and to try to find the causes of differences between countries and regions in their success to achieve the defined strategic goals. Empirical investigation which starts with the assumption that the allocation of EU funds by different thematic fields of intervention has a significant influence on the success in the realisation of the Europe 2020's goals will be presented in the next section.

# 3. Empirical Analysis

# 3.1 Methodology, Units of Analysis and Data

The aim of the empirical part of this paper was to analyse whether there are significant differences between the European NUTS 2 regions in the realisation of the Europe 2020 strategy regarding the allocation of EU funds and to describe the variables that discriminate these two groups if they exist. Discriminant analysis was chosen as a possible suitable method that can be used to empirically investigate the defined question. The application of this method was used in different studies which aimed to identify the variables that distinguish different groups of entities (e.g. Božić, 2007; also in regional studies (e.g. Pompili, 1994; Kurnoga Živadinović, 2007; Salvati, Sabbi, 2014)).

The first problem that arises in this analysis is how to measure the realisation of the Europe 2020 strategy? The importance of setting the adequate performance framework and indicators that can be used for this purpose are described in the previous section. "The Europe 2020 Regional Index" (Dijkstra, Athanasoglou, 2015) is included as a relevant composite indicator in our analysis, as the unique, the most complete composite indicator that measures the realisation of Europe 2020 on the EU regional level (with the limitations of composite indicators that have to be taken into account when using these or similar indicators). It extends and updates the analysis of the urban and regional dimensions of Europe 2020 that were first examined in the Seventh progress report on economic, social and territorial cohesion in 2011 and in the Sixth cohesion report in 2014 (Dijkstra, Athanasoglou, 2015). We have chosen to use the last available data of the Europe 2020 index, expressed as the distance to 4 EU headline targets (where 100 meets or exceeds all targets, 0 means farthest removed from all targets). The regions which have the values of the Europe 2020 index – 4 EU headline targets below 60 are categorized as regions which are less successful in the realisation of Europe 2020 in comparison with the regions which have this index in the values above 60. This represents the two-group single nonmetric dependent variable (VAR 1).

The data on estimated total allocation 2007-2013 (ERDF, ESF and Cohesion Fund) by NUTS 2 regions and by theme (based on the European Commission – Directorate-General for Regional and Urban Policy, 2015b<sup>34</sup>) were taken into consideration to define the independent variables (expressed per capita). These allocations are also in line with the previous theoretical observations on the structure of investing. The independent variables can be seen below.

- VAR 2 innovation and research and development
- VAR 3 assistance to small and medium enterprises and business support
- VAR 4 business infrastructure
- VAR 5 basic infrastructure
- VAR 6 energy
- VAR 7 environment
- VAR 8 culture, heritage and tourism
- VAR 9 human resources, social infrastructure and integrated projects for urban and rural regeneration

The sample consists of 272 NUTS 2 regions, where according to the defined criteria explained above, 168 were determined successful in achieving the

goals of Europe 2020 and 104 had less successful results. Other preconditions for the discriminant analysis were checked and resolved. Due to correlations, VAR 3 (assistance to small and medium enterprises and business support), VAR 7 (environment), VAR 8 (culture, heritage and tourism) were not included in the further analysis. The results and the interpretation of the results are presented in the next section.

#### 3.2 Results and Discussion

Discriminant analysis was used to classify the observation in the defined groups of the dependent variable, based on the chosen independent variables (Kurnoga Živadinović, 2007). Regarding the previous works that present or have used this method of analysis (e.g. Božić, 2010), as well as guidelines and applications in Hair et al., 2010), forward stepwise analysis was performed to determine if the independent variables are able to discriminate these groups. The variables which have a statistically significant influence in differentiating between groups of regions successful and less successful in the realisation of Europe 2020 are presented in Table 1.

	Wilks' Lambda: .65843 approx. F (4.267)=34.627 p<0.0000					
N=272	Wilks' Lambda	Partial Lambda	F-remove (1.267)	p-level	Toler.	1-Toler. (R-Sqr.)
VAR 9	0.699594	0.941163	16.69167	0.000058	0.448489	0.551511
VAR 4	0.693366	0.949616	14.16617	0.000206	0.395999	0.604001
VAR 2	0.706521	0.931934	19.50085	0.000015	0.480216	0.519784
VAR 5	0.666511	0.987878	3.27640	0.071407	0.401328	0.598672

#### Table 1 Variables in the model

Source: Author's calculation

The significant value of Wilks' lambda implies that two groups have different arithmetic means. It can be seen that ERDF, ESF and Cohesion fund allocations in human resources, social infrastructure and integrated projects for urban and rural regeneration, business infrastructure, innovation and research and development and basic infrastructure represent the variables which significantly contribute to the differentiation between the groups of regions that are successful and less successful in achieving the results of Europe 2020. The variable which is not included in the model (refers to investment in the field of energy) is presented in Table 2.

	Df for all F-tests: 1.266					
N=272	Wilks' Lambda	Partial Lambda	F to enter (1.267)	p-level	Tolerance	1-Toler (R-Sqr.)
VAR 6	0.657061	0.997918	0.554917	0.456973	0.517225	0.482775

#### Table 2 Variables that are not in the model

Source: Author's calculation

Detailed analysis has confirmed that one discriminant function creates the difference between successful and less successful regions. According to the means of canonical variables, the author has also determined that the discriminant function discriminates the most the regions which are less successful. Below are presented the results important in deriving further conclusions. Namely, Table 3 presents the factor structure matrix (used to give discriminant functions an interpretative meaning), which shows the variables that determine the discriminant function.

#### Table 3 Factor Structure Matrix

Variable	Root 1
VAR 9	0.815186
VAR 4	0.793504
VAR 2	0.332697
VAR 5	0.756009

Source: Author's calculation

From the presented structure coefficients in Table 3 it can be seen that allocation to human resources, social infrastructure and integrated projects for urban and rural regeneration, business infrastructure and basic infrastructure contribute the most to differences between less successful and successful regions in achieving the results of the Europe 2020 strategy. Allocations to innovation and research and development follow. Regarding the above described results, it can also be seen that the allocations to innovation and research and development for successful regions.

The classification matrix (based on two classification functions determined by the author in the detailed analysis) presented in Table 4 implies that 82.35% of regions are correctly classified.

#### Table 4 Classification Matrix

Variable	Percent correct	No p=.38235	Yes p=.61765
No	71.15385	74	30
Yes	89.28571	18	150
Total	82.35294	92	180

Source: Author's calculation

The results confirm that inter-regional heterogeneity of Europe 2020 performance found in Dijkstra, Athanasoglou (2015) (as well in Athanasoglou, Dijkstra, 2014<sup>35</sup>), is connected with the structure of EU funds allocations. This implies that the significant differences between regions regarding the structure of investing will also influence the appropriate policy interventions. The importance of focusing on different determinants, depending on the region's assets, was seen in Berkowitz et al. (2015). The authors explain that according to place-based approach it is possible to tailor policies to local conditions, and that policy mix may need to focus on different determinants. We agree with Dijkstra, Athanasoglou (2015) that spatially-blind policies are not sufficient to address the performance gaps in Europe 2020 index within a single member state, as well as with the European Commission - Directorate-General for Regional and Urban Policy (2014)<sup>36</sup> which states that it is necessary to identify the appropriate policy mix in addressing determinants responsible for lagging development, through a multi-level governance process.

#### 4. Conclusions

Reforms that have aligned Cohesion Policy with the European economic governance have contributed to better coordination and more focused implementation towards the strategy Europe 2020. This study confirms that the implementation of the strategy Europe 2020 must be observed on the regional level regarding significant differences across regions in achieving the results.

The paper furthermore deals with the analysis of the underinvestigated relationship between the realisation of the strategy Europe 2020 on the regional level and the structure of EU funds by thematic field of intervention. The results imply that regional and thematic tailored interventions are necessary in achieving the goals of Europe 2020, as well as adequate monitoring of the results. Allocations connected with human resources, social infrastructure, integrated projects for urban and rural regeneration, business and basic infrastructure, innovation and research and development provide significant differentiation between the groups of regions regarding their success in the realisation of the strategy Europe 2020. The conclusions can be useful in monitoring the results of Europe 2020, in measuring the effects of the EU funds absorption and in possible recasting of the Cohesion Policy.

Future researches should observe these significant determinants in more detail to partially evaluate their connections with the strategy Europe 2020 performance and possibly to suggest how to maximise the impact of investments. Data on payments should be included in the analysis to compare the given conclusions. Because the variables in this analysis are grouped according to thematic field of intervention, it would be useful to test the stability of results by using a different (more detailed) structure of thematic axes. It would also be desirable to investigate if the results differ by changing the threshold criteria for the less successful and more successful regions. Due to heterogeneity of the regions it will be valuable to study the differences between different typology of regions.

#### References

- Annoni, P., Dijkstra, L., Gargano, N. (2017), "The EU Regional Competitiveness Index 2016", Working Paper WP 02/2017, A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban Policy, available at: http://ec.europa.eu/regional\_policy/ sources/docgener/work/201701\_regional\_competitiveness2016.pdf (Accessed on: January 10, 2017)
- Bachtler, J., Mendez, C., Wishlade, F. (2013). EU Cohesion Policy and European Integration. The Dynamics of EU Budget and Regional Policy Reform. London and New York: Routledge, Taylor & Francis Group.
- 3. Barcerzak, A. P. (2015), "Europe 2020 Strategy and Structural Diversity Between Old and New Member States. Application of Zero Unitarization Method for Dynamic Analysis in the Years 2004-2013", Economics and Sociology, Vol. 8, No. 2, pp. 190-210.
- 4. Berkowitz, P., Von Breska, E., Pieńkowski, Catalina Rubianes, A. (2015), "The impact of the economic and financial crisis on the reform of Cohesion Policy 2008-2013", Working Paper WP 03/2015, A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban Policy, available at: http://ec.europa.eu/regional\_policy/en/information/publications/ working-papers/2015/the-impact-of-the-economic-and-financial-crisis-on-the-reform-of-cohesionpolicy-2008-2013 (Accessed on: January 10, 2017)
- 5. Božić, Lj. (2007), "Suradnja hrvatskih poduzeća na razvoju inovacija", Privredna kretanja i ekonomska politika, Vol. 17, No. 111, pp. 51-67.
- 6. Budd, L. (2013), "Europe 2020: a strategy in search of a regional policy rationale?", Policy Studies, Vol. 34, No. 3, pp. 274-290.
- 7. Crescenzi, R., Fratesi, U., Monastiriotis, V. (2017), "The EU Cohesion Policy and the Factors Conditioning Success and Failure: Evidence from 15 Regions," Regions Magazine, Vol. 305, No. 1, pp. 4-7.
- 8. Dijkstra, L. (2010), "The Regional Lisbon Index," Regional Focus No. 3/2010, A series of short papers on regional research and indicators produced by the Directorate-General for Regional Policy, available at: http://ec.europa.eu/regional\_policy/sources/docgener/focus/2010\_03\_lisbon\_index.pdf (Accessed on: January 10, 2017)
- Dijkstra, L., Annoni, P., Kozovska, K. (2011), "A New Regional Competitiveness Index: Theory, Methods and Findings", Working Paper No. 02/2011, A series of short papers on regional research and indicators produced by the Directorate-General for Regional Policy, available at: http://ec.europa.eu/regional\_policy/hr/information/publications/working-papers/2011/a-new-regional-competitiveness-index-theory-methods-and-findings (Accessed on: January 10, 2017)
- Dijkstra, L., Athanasoglou, S. (2015), "The Europe 2020 Index: the Progress of EU Countries, Regions and Cities to the 2020 Targets", Regional Focus No. 01/2015, A series of short papers on regional research and indicators produced by the Directorate-General for Regional and Urban Policy, available at: http://ec.europa.eu/regional\_policy/sources/docgener/focus/2015\_01\_europe2020\_index.pdf (Accessed on: January 10, 2017)
- 11. Dumciuviene, D., Stundziene, A. (2015), "The efficiency of structural support and impact on economic and social indicators", Technological and Economic Development of Economy, Vol. 21, No. 4, pp. 660-675.
- 12. Erixon, F. (2010), "The Case Against Europe's 2020 Agenda", ECIPE Policy Brief, No. 1/2010, European Centre for International Political Economy, Brussels, available at: http://www.ecipe.org/app/up-loads/2014/12/the-case-against-europes-2020-agenda.pdf (Accessed on: January 4, 2017)
- 13. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2010), Multivariate Data Analysis. 7th edition. Upper Saddle River: Pearson Education, Inc.
- 14. Kaufmann, A., Wagner, P. (2005), "EU regional policy and the stimulation of innovation: The role of the European Regional Development Fund in the objective 1 region Burgenland", European Planning Studies, Vol. 13, No. 4, pp. 581-599.
- 15. Klonowska-Matynia, M., Sasin, M. (2015), "EU Countries Socio-Economic Development in the Context of Europe 2020 Strategy", Rocznik Ochrona Środowiska, Vol. 17, No. 1, pp. 771-791.

- 16. Kurnoga Živadinović, N. (2007), "Multivarijatna klasifikacija županija Hrvatske", Zbornik Ekonomskog fakulteta u Zagrebu, Vol. 5, No. 1, pp. 1-15.
- 17. Makarovič, M., Šušteršić, J., Rončević, B. (2014), "Is Europe 2020 Set to Fail? The Cultural Political Economy of the EU Grand Strategies", European Planning Studies, Vol. 22, No. 3, pp. 610-626.
- 18. McCann, P. (2015), The Regional and Urban Policy of the European Union. Cohesion, Results-Orientation and Smart Specialisation. Cheltenham, Northampton: Edward Elgar Publishing.
- 19. McCann, P., Varga, A. (2015), "Editorial: The Reforms to the Regional and Urban Policy of the European Union: EU Cohesion Policy", Regional Studies, Vol. 49, No. 8, pp. 1255-1257.
- 20. Medeiros, E. (2014), "Assessing Territorial Impact of the EU Cohesion Policy: The Portuguese Case", European Planning Studies, Vol. 22, No. 9, pp. 1960-1988.
- 21. Pasimeni, F., Pasimeni, P. (2016), "An Institutional Analysis of the Europe 2020 Strategy", Social Indicators Research, Vol. 127, No. 3, pp. 1021-1038.
- 22. Petru, F., Dobrescu, E. M. (2014), "The European Union's 2020 Strategy. Some Observations", Transylvanian Review, Vol. 23, No. 2 (supplement), pp. 304-310.
- 23. Pompili, T. (1994), "Structure and performance of less developed regions in the EC", Regional Studies, Vol. 28, No. 7, pp. 679-693.
- 24. Rakauskienė, O. G., Kozlovskij, V. (2013), "Trends and Features of EU Cohesion Policy Implementation for Old and New Member States", Intelektinė Ekonomika, Vol. 7, No. 2, pp. 141-160.
- 25. Salvati, L., Sabbi, A. (2014), "Identifying urban diffusion in compact cities through a comparative multivariate procedure", Annals of Regional Science, Vol. 53, No. 2, pp. 557-575.
- 26. Stec, M., Grzebyk, M. (2016), "The implementation of the Strategy Europe 2020 objectives in European Union countries: the concept analysis and statistical evaluation", Quality and Quantity, pp. 1-15, available at: https://link.springer.com/article/10.1007/s11135-016-0454-7 (Accessed on: March 10, 2017)

#### (ENDNOTES)

- European Structural and Investment (ESI) Funds in 2014-2020 programing period are: European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Funds, European Agricultural Fund for Rural Development (EAFRD) and European Maritime and Fisheries Fund (EMFF) (more in European Commission – Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/ information/cohesion-report/ (Accessed on: January 10, 2017)). In 2007-2013 the most important EU funds were Structural (ERDF, ESF) and Cohesion Fund and they will be used in the empirical part of this paper.
- 2 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)
- 3 European Commission (2016), "Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, European Structural and Investment Funds 2014-2020 2016 Summary Report of the programme annual implementation reports covering implementation in 2014-2015", available at: http://ec.europa.eu/regional\_policy/en/information/publications/reports/2016/european-structural-and-investment-funds-2014-2020-2016-summary-reportof-the-programme-annual-implementation-reports-covering-implementation-in-2014-2015 (Accessed on: February 21, 2017)
- 4 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)
- 5 European Commission Directorate-General for Regional and Urban Policy (2017b), "What is Regional policy The EU's main investment policy", available at: http://ec.europa.eu/regional\_policy/en/policy/what/investment-policy/ (Accessed on: March 10, 2017)
- 6 European Commission Directorate-General for Regional and Urban policy (2015a), "Contribution of the European Structural and Investment Funds to jobs and growth, the Investment Plan and the Commission's priorities", available at: http://ec.europa.eu/regional\_policy/en/policy/what/investment-policy/esif-contribution/ (Accessed on: March 10, 2017)

- 7 European Commission Directorate-General for Regional and Urban Policy (2017a), "European Semester Winter Package: how ESI Funds contribute to Member States' economic and social priorities", available at: http://ec.europa.eu/regional\_policy/en/newsroom/ news/2017/02/22-02-2017-european-semester-winter-package-how-esi-funds-contribute-to-member-states-economic-and-social-priorities (Accessed on: April 12, 2017)
- 8 European Commission (2017c), "European Structural and Investment Funds Data", available at: https://cohesiondata.ec.europa.eu/ (Accessed on: February 21, 2017)
- 9 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)
- 10 More about the reforms and importance of Cohesion Policy can be found in Bachtler et al. (2013), Berkowitz et al. (2015) and special issue of Regional Studies (2015), Theme Issue: Place-based Economic Development and the New EU Cohesion Policy, Vol. 49, No. 8.
- 11 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)
- 12 European Commission (2017a), "Europe 2020 strategy", available at: https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy\_en#howisthestrategymonitored (Accessed on: January 10, 2017)
- 13 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 14 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 15 More in Committee of the Regions (2014), "Athens Declaration on the mid-term review of Europe 2020, a 'Territorial Vision for Growth and Jobs'", available at: https://portal.cor.europa.eu/europe2020/Documents/2210%20Athens%20declaration%20A5%20indd.pdf (Accessed on: January 10, 2017).
- 16 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 17 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 18 European Commission (2017a), "Europe 2020 strategy", available at: https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy\_en#howisthestrategymonitored (Accessed on: January 10, 2017)
- 19 European Commission (2017b), "Europe 2020 targets: statistics and indicators at EU level", available at: https://ec.europa.eu/info/ strategy/european-semester/framework/drafteurope-2020-strategy/europe-2020-targets-statistics-and-indicators-eu-level\_en (Accessed on: January 10, 2017)
- 20 European Commission (2017d), "The European Semester: why and how", available at: https://ec.europa.eu/info/strategy/europeansemester/framework/european-semester-why-and-how\_en (Accessed on: March 10, 2017)
- 21 Eurostat (2017a), "Cohesion indicators", available at: http://ec.europa.eu/eurostat/web/cohesion-policy-indicators/cohesion-indicators (Accessed on: February 21, 2017)
- 22 Eurostat (2017b), "Europe 2020 indicators", available at: http://ec.europa.eu/eurostat/data/database (Accessed on: February 21, 2017)
- 23 Eurostat (2017c), "Smarter, greener, more inclusive? Indicators to support the Europe 2020 strategy", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-EZ-17-001 (Accessed on: July 22, 2017)
- 24 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 25 European Committee of the Regions (2017), "Europe 2020 Monitoring Platform", available at: http://cor.europa.eu/en/activities/ networks/Pages/europe-2020-monitoring-platform.aspx (Accessed on: June 10, 2017)
- 26 Eurostat (2016), "Eurostat regional yearbook 2016", Statistical books, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-HA-16-001 (Accessed on: February 21, 2017)
- 27 Athanasoglou, S., Dijkstra, L. (2014), "The Europe 2020 Regional Index", European Commission Joint Research Centre Scientific and Policy Reports, Report EUR 26713 EN, Publications Office of the European Union, Luxembourg, available at: http://publications. jrc.ec.europa.eu/repository/bitstream/JRC90238/reqno\_jrc90238\_the%20europe%202020%20regional%20index\_final\_online.pdf (Accessed on: January 10, 2017)
- 28 Athanasoglou, S., Dijkstra, L. (2014), "The Europe 2020 Regional Index", European Commission Joint Research Centre Scientific and Policy Reports, Report EUR 26713 EN, Publications Office of the European Union, Luxembourg, available at: http://publications. jrc.ec.europa.eu/repository/bitstream/JRC90238/reqno\_jrc90238\_the%20europe%202020%20regional%20index\_final\_online.pdf (Accessed on: January 10, 2017)
- 29 Athanasoglou, S., Dijkstra, L. (2014), "The Europe 2020 Regional Index", European Commission Joint Research Centre Scientific and Policy Reports, Report EUR 26713 EN, Publications Office of the European Union, Luxembourg, available at: http://publications. jrc.ec.europa.eu/repository/bitstream/JRC90238/reqno\_jrc90238\_the%20europe%202020%20regional%20index\_final\_online.pdf

(Accessed on: January 10, 2017)

- 30 Annoni, P., Dijkstra, L. (2013), "EU Regional Competitiveness Index RCI 2013", European Commission Joint Research Centre Scientific and Policy Reports, Institute for Security and Protection of the Citizens, Report EUR 26060 EN, Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/sources/docgener/studies/pdf/6th\_report/rci\_2013\_report\_final.pdf (Accessed on: January 10, 2017)
- 31 ESPON (2013), "ESPON Atlas Territorial Dimensions of the Europe 2020 Strategy", available at: http://interreg.no/wp-content/ uploads/2015/10/2013\_espon\_atlas.pdf (Accessed on: February 10, 2017)
- 32 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)
- 33 European Commission (2011), "The urban and regional dimension of Europe 2020. Seventh progress report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/hr/ information/publications/reports/2011/7th-progress-report-on-economic-social-and-territorial-cohesion-the-urban-and-regional-dimension-of-europe-2020 (Accessed on: January 10, 2017)
- 34 European Commission Directorate-General for Regional and Urban Policy (2015b), "Database: Total allocations 2007-2013 (ERDF, ESF and Cohesion Fund) by NUTS 2 regions and by theme", provided by the Europe Direct Contact Centre.
- 35 Athanasoglou, S., Dijkstra, L. (2014), "The Europe 2020 Regional Index", European Commission Joint Research Centre Scientific and Policy Reports, Report EUR 26713 EN, Publications Office of the European Union, Luxembourg, available at: http://publications. jrc.ec.europa.eu/repository/bitstream/JRC90238/reqno\_jrc90238\_the%20europe%202020%20regional%20index\_final\_online.pdf (Accessed on: January 10, 2017)
- 36 European Commission Directorate-General for Regional and Urban policy (2014), "Investment for jobs and growth. Promoting development and good governance in EU regions and cities. Sixth report on economic, social and territorial cohesion", Publications Office of the European Union, Luxembourg, available at: http://ec.europa.eu/regional\_policy/en/information/cohesion-report/ (Accessed on: January 10, 2017)

Lela Tijanić

# Realizacija strategije Europa 2020 i tematska alokacija sredstava iz strukturnih fondova u europskim regijama

#### Sažetak

Kohezijska politika Europske unije pruža financijsku pomoć kroz EU fondove, otvara jedinstvenu priliku državama članicama i njihovim regijama da se uspješno suoče s preprekama izazovnog okruženja, kao i da ostvare (pametan, održiv, uključiv) rast i razvoj. U posljednjem programskom razdoblju 2014. – 2020. kohezijska politika usklađuje se s Europom 2020, europskom strategijom za rast i zapošljavanje. U skladu s potrebama, regionalna alokacija sredstava se promijenila te je u novom razdoblju potrebno koncentrirati sredstva prema usmjerenim tematskim prioritetima, kako bi učinak ulaganja bio veći. Mjerenje rezultata ostvarenja ciljeva strategije Europe 2020 koje je povezano s implementacijom kohezijske politike područje je (konstantnih) rasprava.

Cilj rada je ponajprije sažeto prikazati povezanost između reformirane kohezijske politike i strategije Europa 2020 u posljednjem programskom razdoblju 2014. – 2020., a nakon toga empirijski analizirati je li različita tematska alokacija sredstava iz EU fondova povezana s uspjehom u realizaciji strategije Europa 2020. Rezultati upućuju da je heterogenost u realizaciji Europe 2020 na regionalnoj razini povezana sa strukturom alokacije sredstava iz EU fondova. Zaključci rada mogu biti zanimljivi u praćenju ostvarenja Europe 2020, u evaluaciji rezultata i mogućim promjenama kohezijske politike.

Ključne riječi: kohezijska politika, strategija Europa 2020, EU fondovi