COHESION POLICY AND REGIONAL COMPETITIVENESS IN THE NEW EU COUNTRIES

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Abstract
The present paper explores the amount of support received by the new member states and the effects of this support in addressing the challenges these economies face and on the regional competitiveness of these countries. The paper analyzes the relation between the absorption of structural funds and the evolution of regional competitiveness level in Romania and Bulgaria. After creating the competitiveness profiles of the selected countries, a correlation analysis between the funds received and several competitiveness indicators is performed. The research of this relation helps us to underline the critical role of cohesion policy and structural funds on the economies of the selected new member states.

Keywords: EU cohesion policy, structural funds, regional competitiveness, economic development

JEL classification: R11, R58, O 11

1. Introduction
Competition policy is of high priority both within the decision-making structures of the European Union as well as in the EU academic environment. This particular attention to competition is paid due to its determinative capacity in assuring progress and development. Usually, the concept of competitiveness is associated with technological growth and high economic efficiency and effectiveness. Yet, the concept is also connected to a multitude of social and economic characteristics including, for instance, population beliefs and values, quality of education, of governance and of policies.
promoted. These factors cumulated either foster competitiveness or slow it down.

The European Union is an integrational structure which comprises countries with specific socio-economic characteristics and level of economic and technological progress. This fragmentation between Western EU and Eastern EU states creates development discrepancies with negative impact on overall economic performance of the EU. Thus, the European Union developed the cohesion policy to reduce the existing differences between the community’s regions and to increase the economic growth perspective of the union as a whole. In such a way, it is proposed to reduce the existing competitiveness gap of the EU as compared to the USA and minimize the future competitiveness threat arousing from Asian countries including China and Japan.

The present research investigates the impact of the Cohesion Policy of the European Union upon the evolution of the competitiveness at regional level in Romania and Bulgaria, EU countries with the lowest socio-economic progress in the union and, therefore, weakest cells in the community. In such a way, it will be possible to assess the competitiveness impact of structural funds, EU non-refundable financial assistance, Romania and Bulgaria have absorbed since their EU accession in the y. 2007. In this context, the research in focused on analyzing the relation between EU funding and competitiveness indicators Romania and Bulgaria have registered during the period since integration into the European Union.

Thus, the paper considers two priorities. First, it creates competitiveness profiles of Romania and Bulgaria. Second, an impact analysis is developed and the relation with competitiveness indicators is performed.

Accordingly, the present paper is structured as follows: section 1 describes the current literature trends on competitiveness, regional development and key assessment indicators; section 2 highlights the profiles of Romania and Bulgaria in terms of economic, social and innovation competitiveness; section 3 analyses the evolution of EU provided funding towards Romania and Bulgaria; in the section 4 it is underlined the relation between competitiveness indicators and received funding while in the section 5 there are drawn relevant conclusions and further research directions.

1. Literature review
Traditionally, competitiveness is of high interest within the academic environment and therefore a myriad of researches has been done on the topic describing its aspects in various ways. In such a way, the World Economic Forum (WEF) defines competitiveness as a set of distinctive characteristics of an economy including institutions, policies and factors which determine the level of productivity of a country both at macro and micro economic levels (Schwab and Porter, 2007). Nevertheless, despite of its extensive general literature coverage, the evolution of competitiveness and its relation with absorbed funding in the new EU member states, Romania and Bulgaria, have been given less attention. Yet, the available material provides deep insight upon the subject highlighting various aspects covering widely differing views of researchers.

So, according to Gligor (2015), the absorption of structural funding has considerably increased the economic potential of Romania and Bulgaria. Moreover, this fact favorably impacted the countries’ regional competitiveness and enhanced business activity. The author also forecasts that absorption of additional funding will further foster regional competitiveness positively effecting socio-economic progress in these countries. However, it is also underlined that the new member states, especially Bulgaria, tend rather to invest the EU funding in the most favored regions giving less priority towards poorer and less protected ones (i.e. Galabinova Yu., 2016).

There is also put an accent upon the EU funding as one of the most important driver of stimulating competitiveness in new EU states. Yet, to maximize the economic and competitiveness impact of funding several adjustments are to be made in terms of financing approaches (either credit or grant, or a mix of them), more facile access for beneficiaries, more effective government policies. Another important issue debated is the way to reach most unflavored regions and minimize the costs and losses (European Parliament, 2017).

Cucca R. and Kazepov Y (2015) underline the strategic importance of EU funding in strengthening institutional potential of new member states by promoting a more participatory and inclusive decision making. Nevertheless, when it comes to discussing the EU Cohesion Policy and its impact upon competitiveness some issues arise including those considering rather passive orientation of policy towards efficiency. Nicolae et all (2016) argues that the EU cohesion policy has had an uneven effect upon the regional development in Romania. So, most favored is the region neighboring the capital city and the
disfavored are north-eastern. Moreover, during the period of 2000-2009 these differences in socio economic development increased in intensity. European Commission (2017) underlines the existence of political biased allocation of EU funding in the new member states, while Marcu N. and Dobrotă E. (2016) states that on general level of the state the Cohesion Policy had a favorable development impact, yet some regions have been lacking financing.

Postoiu C. and Beșega I. (2015) state that regions neighboring large cities have shown more visible economic development and enhancement of competitiveness level. At the general level of the European Union the divergences tended to minimize till the 2009 crisis, yet since the recovery they started to increase again. The regional discrepancies within the countries including Romania and Bulgaria are still existing. Ilieva M. (2015) underlines the remaining magnitude of discrepancies between the least and most developed regions at EU level as being alarming.

2. The profiles of Romania and Bulgaria in terms of economic, social and innovation competitiveness

One of the main indicators reflecting the socio-economic development of country or region is the GDP per capita. It is the sum of all economic output or of all gross value added formed within certain territorial borders. Therefore, GDP per capita could be a valuable indicator of socio-economic competitiveness as a higher level of this indicator expresses more complex and efficient production of material and non-material goods and services.

By examining the figure 1, it can be remarked that in dynamics both GDP per capita in Romania and Bulgaria has increased. The same increase could be assessed for all regions (Nuts 1 and Nuts 2). Yet, it is necessary to underline that there are considerable development discrepancies among the regions of Bulgaria or Romania. This fact creates economic misbalances and worsens the countries general economic performance. Therefore, it can be remarked that in Romania, for instance, the Ilfov - Bucuresti region recorded for 2015 a GDP per capita of more than 19 thousand USD, while for example North-East region registered only 4800 USD (figure 1).

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3 The NUTS classification (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU for the purpose of the collection, development and harmonisation of European regional statistics and to perform socio-economic analyses of the regions to frame EU regional policies.
Therefore, the GDP per capita is one of the most relevant indicators showing the degree of socio economic competitiveness characteristic for a specific region. Despite of its generalist aspects it remains applicable showing the cumulated economic productiveness.

**Figure 1: GDP per capita (current market prices) by regions of Romania and Bulgaria (Nuts 1 and 2), EUR**

Source: Designed by the author based on data provided by EUROSTAT
Research and development (R&D) spending is also an important indicator stimulating regional competitiveness leading to innovation. Higher R&D spending fosters the existing research, which generates new knowledge. It also improves the mechanisms of transferring the knowledge, final output of R&D spending, to the marketplaces. Moreover, it helps in reducing risk of doing business by improving the quality of business and of entrepreneurial quality. Rosenberg (2004) comes to underline that innovation is important as it helps in obtaining higher level of production from the same level of inputs. R&D spending is an important indicator showing the existence of financial resources allocated towards searching innovation highlighting stronger concern of enterprises to grow and make more efficient the existing processes. In order to examine the innovation activity at regional level in Bulgaria and Romania, the total R&D expenditure is examined (NUTS 2 regions) (figure 2). This indicator includes the expenditures in R&D made by business enterprise sector, government sector, higher education sector and private non-profit sector.

As it can be observed from the figure 2, Bulgaria registers constant growing dynamics in terms in R&D spending while Romania follows an alternating trend. The highest level of R&D spending is characteristic for Bucharest-Ilfov region (NUTS 2), Romania, while the Yugozapaden leads in Bulgaria.

An important economic role in Romanian and Bulgarian regions is played by agriculture. Aceleanu (2015) underlines the strategic role of agriculture for economy of Romania underlining the importance of implementing innovation in this sector as to increase the output without losing in sustainability. Moreover, environmental concerns should be regarded as in the long run this fact will stand for more competitive agricultural sector. Stoeva (2015) argues that the necessity of developing competitiveness of agricultural sector in Bulgaria for strategic economic reasons, this fact being based on both quality and quantity measures. In such a way, competitiveness of agricultural sector is viewed in strategic terms for both Romania and Bulgaria. Hristcheva (2015) stresses this importance and highlights that much EU funding was directed towards agricultural sector.
A relevant indicator through which it can be assessed the evolution the level of competitiveness of agriculture in both Romania and Bulgaria is total agricultural output per capita. Even a greater role in the economies of Bulgaria and Romania as compared to agriculture is played by the tertiary sector. Yet, the level of competitiveness of this sector at the regional and national level is rather determined by the degree of development of science and high
technology. These are key indicators showing capacity of the country or region to innovate and therefore be productive and competitive. Further, it will be analyzed the total number persons with tertiary education (ISCED) and/or employed in science and technology.

Namely, R&D personnel play a key role in assuring the economy with new technologies which are imperative for economic development. King (2004) said that “the ability to judge a nation’s scientific standing is vital for the governments, businesses and trusts that must decide scientific priorities and funding.” This fact underlines the determinative effect of national scientific potential on its economic development providing improved competitiveness capacity.

By examining the figure 3, it can be observed that, in dynamics, the number of people having tertiary education employed in science and technology has increased in Romania and Bulgaria. In the years after the world economic crisis it can be highlighted alternating dynamics of this indicator, the fact being a direct consequence of the post crisis fluctuating economic activity.

Firgo M. (2017) underlines the importance of country’s social competitiveness, ensured through national social policies. This fact is of high interests for decision making factors considering the long - run economic development prospective. Namely, a well-managed social policy assures the nation with human capital.
In order to show the social competitiveness of Romania and Bulgaria is used the indicator of people at risk of poverty or social exclusion (%), a lower level being a sign of more favorable social competitiveness (figure 4). Statistics show that a positive general trend is registered in both countries: Romania and Bulgaria, but considerable discrepancies between the regions are still existing. According to European Commission (2016) the reduction of the number of persons at risk of poverty or social exclusion in the EU is one of the key targets of the Europe 2020 strategy.

Source: Designed by the author based on Eurostat data.
3. Analyses the evolution of EU provided funding towards Romania and Bulgaria, different instruments

As it can be remarked in the figure 6, the size of European Union expenditure in the selected for analysis new member states has constantly grown during the period of 2006-2015. The financing provided is based on different instruments aimed at fostering sustainable growth; preservation and management of natural resources; citizenship, freedom, security and justice; and others. For the period of 2014-2015, the EU funding was allocated towards smart and inclusive growth; sustainable growth (natural resources); security and citizenship; special instruments etc.

Figure 4: People at risk of poverty or social exclusion by NUTS 1 and 2 regions, %

Source: Designed by the authors based on Eurostat data.

Nevertheless, it should be mentioned that in 2006 Bulgaria and Romania have benefited also from EU financing by participating at pre-
accession programme aimed at strengthening countries’ economic and institutional potentials. It is necessary to notice that during the researched period the average per year financing in Romania was more than 3.4 billion EUR, while in Bulgaria this indicator almost reached the value of 1.4 billion EUR. (Fig. 5)

In such a way, it can be stated that the EU funding to the new member states has been a stable source of financing development projects, both at national and regional level.

Figure 5: EU expenditure provided to Romania and Bulgaria, EUR billion

Source: Designed by the author based on data provided by EUROSTAT.

4. The relation between competitiveness indicators and funding

Table 1 informs regarding the correlations of EU funding with the selected indicators. White colour reflects strong positive correlation, White cells in the table, but underlined show a medium, but still positive correlation between the indicators, light grey - weak negative or positive correlation and dark grey - strong or medium negative correlation. As it can be remarked, the green colour is dominant in the table, showing strong correlation between the EU financing at the national level and the evolution of selected regional competitiveness indicators.
Table 1: Correlation between EU funding and regional competitiveness indicators

<table>
<thead>
<tr>
<th>Region</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V^4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>0.91</td>
<td>0.98</td>
<td>0.77</td>
<td>0.96</td>
<td>-0.60</td>
</tr>
<tr>
<td>Severna i Yugoiztochna NUTS 1</td>
<td>0.94</td>
<td>0.93</td>
<td>0.79</td>
<td>0.95</td>
<td>-0.71</td>
</tr>
<tr>
<td>Severozapaden</td>
<td>0.91</td>
<td>0.93</td>
<td>0.73</td>
<td>0.26</td>
<td>-0.85</td>
</tr>
<tr>
<td>Severen tsentralen</td>
<td>0.95</td>
<td>0.93</td>
<td>0.70</td>
<td>0.63</td>
<td>-0.90</td>
</tr>
<tr>
<td>Severoiztochen</td>
<td>0.93</td>
<td>0.89</td>
<td>0.86</td>
<td>0.93</td>
<td>-0.05</td>
</tr>
<tr>
<td>Yugoiztochen</td>
<td>0.94</td>
<td>0.84</td>
<td>0.69</td>
<td>0.86</td>
<td>-0.56</td>
</tr>
<tr>
<td>Yugozapadna i yuzhnata tsentralna NUTS 1</td>
<td>0.88</td>
<td>0.97</td>
<td>-0.36</td>
<td>0.94</td>
<td>-0.39</td>
</tr>
<tr>
<td>Yugozapaden</td>
<td>0.87</td>
<td>0.97</td>
<td>-0.32</td>
<td>0.92</td>
<td>-0.51</td>
</tr>
<tr>
<td>Yuzhen tsentralen</td>
<td>0.92</td>
<td>0.66</td>
<td>-0.32</td>
<td>0.93</td>
<td>-0.08</td>
</tr>
<tr>
<td>Romania</td>
<td>0.93</td>
<td>0.14</td>
<td>0.41</td>
<td>0.89</td>
<td>-0.76</td>
</tr>
<tr>
<td>Macgregiunea unu NUTS 1</td>
<td>0.92</td>
<td>0.55</td>
<td>-0.21</td>
<td>0.86</td>
<td>-0.58</td>
</tr>
<tr>
<td>Nord-Vest</td>
<td>0.91</td>
<td>0.14</td>
<td>-0.32</td>
<td>0.82</td>
<td>-0.80</td>
</tr>
<tr>
<td>Centru</td>
<td>0.92</td>
<td>0.64</td>
<td>-0.07</td>
<td>0.77</td>
<td>-0.18</td>
</tr>
<tr>
<td>Macgregiunea doi NUTS 1</td>
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<td>0.12</td>
<td>0.46</td>
<td>-0.42</td>
<td>-0.53</td>
</tr>
<tr>
<td>Nord-Est</td>
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<td>0.44</td>
<td>0.28</td>
<td>-0.53</td>
<td>-0.85</td>
</tr>
<tr>
<td>Sud-Est</td>
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<td>-0.54</td>
<td>0.54</td>
<td>0.02</td>
<td>0.06</td>
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<tr>
<td>Macgregiunea trei NUTS 1</td>
<td>0.91</td>
<td>0.01</td>
<td>0.64</td>
<td>0.87</td>
<td>-0.79</td>
</tr>
<tr>
<td>Sud - Muntenia</td>
<td>0.94</td>
<td>0.53</td>
<td>0.62</td>
<td>0.77</td>
<td>-0.65</td>
</tr>
<tr>
<td>Bucuresti - Ilfov</td>
<td>0.86</td>
<td>-0.16</td>
<td>0.39</td>
<td>0.83</td>
<td>-0.80</td>
</tr>
<tr>
<td>Macgregiunea patru NUTS 1</td>
<td>0.89</td>
<td>0.30</td>
<td>0.46</td>
<td>0.58</td>
<td>-0.69</td>
</tr>
<tr>
<td>Sud-Vest Oltenia</td>
<td>0.91</td>
<td>0.11</td>
<td>0.39</td>
<td>0.80</td>
<td>-0.80</td>
</tr>
<tr>
<td>Vest</td>
<td>0.86</td>
<td>0.32</td>
<td>0.48</td>
<td>0.08</td>
<td>0.31</td>
</tr>
</tbody>
</table>

**Legend:** Correlation of received EU funds and 1) GDP per capita at regional level; 2) regional R&D spending; 3) regional agricultural output; 4) persons with tertiary education and/or employed in science and technology; 5) people a risk of poverty or social exclusion

**Source:** Own calculations

^4 The higher the negative correlation, stronger is the effect of EU funding in reducing poverty or risk of social exclusion.
The average correlation index between the received EU funds and all five selected competitiveness indicators registered for Bulgaria is 0.84, while for Romania - 0.63. Both Bulgaria and Romania have leading regions recording higher correlation between the EU funding and the selected competitiveness indicators, such as Severna i yugoiztochna (NUTS 1), or Severen tsentralen, (NUTS 2) in Bulgaria, or Macroregiunea 3 (NUTS 1) or Sud-Muntenia (NUTS 2) in Romania (Fig.6).

The countries also have regions with lower levels of correlation as Sud-Est for Romania and Yushen-tsentralen, Bulgaria. As it can be remarked, the average total correlation between the EU funding and regional competitiveness indicators is 0.58, which is relatively high, reflecting positive influence of EU funds upon the GDP per capita at regional level and regional competitiveness. The indicator with the highest correlation is the first correlation relation, while lowest is the third one.

**Figure 6: Average regional correlation all five indicators**

Source: Designed by the author based on own calculations
5. Conclusion

The research shows that the EU funding had a positive impact upon the regional competitiveness of Bulgaria and Romania, being registered a relatively high correlation index (0.84 and 0.63 respectively). The Cohesion Policy of the European Union brings contributes to the creation of value added and increase in the competitiveness of the new member states, being an important tool in fostering the social and economic development of the regions. Therefore, further allocation of funds is supposed to reduce even at a greater extent the existing regional disparities. Yet, due to weak sensibility of competitiveness indicators to EU funding in some regions, it is necessary to implement some additional tolls and mechanisms that would be able to foster and to maximize the efficiency of using EU finds in Romania and Bulgaria.

References:

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