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# EU STRUCTURAL FUNDS: DO THEY GENERATE MORE GROWTH? – IN RESPONSE TO PROFESSOR'S SASHA BECKER ASSESSMENT

### 1. Introduction

Our considerations presented herein have been inspired by the seminal analysis of Professor's Sascha O. Becker in his article published by Chatham House in the CAGE Series (No. 3, December 2012). We will start by discussing main formulations presented by Professor Becker in respect to the effectiveness of the EU cohesion policy.

Professor Becker performs an incisive and rather critical analysis of the effectiveness and efficiency of the cohesion policy of the European Union, asserting that the EU multi-annual financial framework's (MFF) negotiations (simply put, the EU budget for seven years) constitute a "constant source of disagreement".

Since the EU spending on Regional Policy constitutes over one-third of the MFF, the effectiveness of it attainment of the policy's objective, namely fostering convergence between the EU's poor and rich regions is not a trifle matter. Author espouses, as the starting point for his analysis the existence of considerable differences in GDP per capita not only across countries but also across regions within countries.

Author poses important questions related to the implementation of the EU cohesion policy, attempting to determine whether the policy in its current form is successful or whether key adjustments should be introduced within its framework. He wonders if the policy's enormous resources are successful in increasing growth rates in the EU poorer regions? He also relates to the recipient regions' absorptive capacity in turning transfers into additional economic expansion, and attempts to assess in what way the impact on growth depends on regional conditions. Subsequently Professor Becker elaborates on the problem whether larger transfers lead to more growth, wondering if there are diminishing returns present in case of cohesion policy's intervention.

## 2. The EU Regional Policy – main facts

The European Union designs its multi-year budgets for the so called programming periods, with the current programming period reaching from 2007 to 2013, and the next one encompassing the period 2014 - 2020. The EU budget is financed from customs duties on imports from outside of the EU, from sugar levies from a standard percentage imposed on the harmonized VAT base of each EU

country and from a standard percentage taxed on the GNI of each EU country. The EU's budget must balance every year; as it cannot issue debt<sup>1</sup>.

Contributions of the EU member states to the budget are "flat", i.e. all member, regardless of their affluence and economic development contribute about 1% of their Gross National Product, while the poorer countries benefit more from the EU expenditures side than the richer ones.

In the 2007-2013 programming period, the EU regional policy expenditures were divided into three areas: the Convergence Objective (formerly Objective 1), the Regional Competitiveness and Employment Objective (formerly Objective 2) and the European Territorial Cooperation Objective (formerly Objective 3). In the financial perspective 2007-2013 resources allotted to the regional and cohesion policy amount to 347 billion euro (i.e. 35.7% of the total Budget), which translates to an annual average of about 49 billion euro. With the co-financing of the cohesion policy programmes by the member states, its total funding approaches –according to professor Becker's calculations- 700 billion euro. The total EU allocation to the Convergence Objective amounts to 283 billion euro (or 81.6% of the total cohesion policy allocation). The Regional Competitiveness and Employment Objective has been allotted 55 billion euro from the EU coffers (15.8% of the total allocation), while expenditures on the for the European Territorial Cooperation Objective were set at 9 billion euro (2.6% of the total)<sup>2</sup>.

Through the convergence objective, which receives the decisive part of the cohesion policy allocation the EU provides transfers to disadvantaged regions which are envisioned to stimulate their bridging of the development gap (measured by the region's GDP per capita at PPP compared the EU average figure). The basic units of the cohesion policy, at which the progress in the policy's implementation is measured, are the so-called NUTS2 regions (in Eurostat's nomenclature regions between 1–3 million of inhabitants). Professor Becker starts his evaluation of the EU Regional Policy, in which he focuses on the already concluded programming periods (namely 1989–93, 1994–99 and 2000–06), by indicating that in the period subject to his analysis the Objective 1 regions received annual financial transfers of the magnitude of 1.1% - 1.8% of their GDP (which translates into an yearly allocation per inhabitant of 125 euro in the period 1989–93 and of 229 euro in the years 2000–06)<sup>3</sup>.

Author underlines the difficulties related to evaluating the effectiveness of the cohesion policy's transfers, by indicating that poor, catching up, regions might observe faster economic growth on account of other factors than the EU financial injections, which rules out the simplistic approach based on straightforward comparison of growth rates of "transfer" regions and "non-transfer" regions. He further points out to the question whether the EU funds result in sufficient economic returns (in terms of additional growth) to justify cohesion policy's expenditures. He quotes various researchers who espoused opposite views on the effectiveness of the

<sup>&</sup>lt;sup>1</sup> S. O. Becker, *EU Structural Funds. Do They Generate More Growth?*, Chatham House Series. No 3. December 2012. p. 4.

<sup>&</sup>lt;sup>2</sup> Ibidem, op. cit., p. 4.

<sup>&</sup>lt;sup>3</sup> Ibidem, op. cit., p. 4.

cohesion policy, starting with Sala-i-Martin<sup>4</sup> (1996) who concluded, upon comparing regional growth and convergence patterns in the EU with that of other federations that do not operate similarly extensive cohesion programmes, that the cohesion policy was a failure; while Boldrin's and Canova's<sup>5</sup> (2001) critical appraisal of the said policy was based on the analysis of regional growth in recipient and non-recipient regions.

Subsequently, Professer Becker quotes more favorable opinions on the effectiveness of the EU cohesion policy, starting with the conclusions of Midelfart-Knarvik and Overman (2002), who ascertained that the said policy had a positive impact on industry location and agglomeration at the national level. Then he adduces the opinion of Beugelsdijk and Eijffinger (2005) and of Ederveen et al. (2006) who, upon analyzing national data, identified positive relationship between spending of the EU funds and the GDP/capita growth (with the reservation that the said observation holds true for countries who posses properly functioning institutional environment). The presence of the positive impact of EU funds on regional growth (at the NUTS1 and NUTS2 level was detected – as Professor Becker adds - by Cappelen et al.<sup>6</sup> (2003) and Ederveen et al.<sup>7</sup> (2002).

He than follows by presenting his own, more recent research<sup>8</sup> which focused specifically on the Objective 1 programmes, since the funds within its framework are the most specifically earmarked for assuring converge between the EU poor and rich regions, form the largest part of the cohesion policy's financing and have been operating in the relatively stable institutional layout throughout all three programming periods subject to his analysis. Simply put the regions eligible for EU financing within the framework of the Convergence Objective have the GDP per capita level below 75% of the EU average.

Becker identifies positive relation between the Objective 1 financing and the growth of per capita income, calculating that 1 euro spent on the Objective 1 transfers yields 1.20 euro of additional GDP, suggesting that the observed effect stems most likely from "stimulus on the volume and structure of investment (e.g. infrastructure) and ultimately to productivity gains", indicating at the same time that the impact on job creation is less pronounced. In his general opinion, "on average, Objective 1 transfers may well be effective and – at least overall – are not wasteful"<sup>9</sup>.

<sup>&</sup>lt;sup>4</sup> Ibidem, op. cit., p. 5, compare X. Sala-i-Martin, (1996), "Regional Cohesion: Evidence and Theories of Regional Growth and Convergence", *European Economic Review*, 40, p. 1325–1352.

<sup>&</sup>lt;sup>5</sup> S.O. Becker, *EU Structural*...op. cit. p 5, compare M. Boldrin, F. Canova, (2001), "Europe's Regions – Income Disparities and Regional Policies", *Economic Policy* 32, p. 207–253.

<sup>&</sup>lt;sup>6</sup> S.O. Becker, *EU Structural*...op. cit., p. 5, compare K. Midelfart-Knarvik, H. Overman, (2002), "Delocation and European Integration – Is Structural Spending Justified?", *Economic Policy* 17, p. 323–359; M. Beugelsdijk, S. Eijffinger (2005), "The Effectiveness of Structural Policy in the European Union: an Empirical Analysis for the EU-15 in 1995–2001", *Journal of Common Market Studies* 43, p. 37–51; A. Cappelen, F. Castellacci, J. Fagerberg, B. Verspagen, (2003), "The Impact of EU Regional Support on Growth and Convergence in the European Union", *Journal of Common Market Studies* 41, p. 621–44.

S.O. Becker, EU Structural... op. cit., p. 5.

<sup>&</sup>lt;sup>8</sup> S.O. Becker, P. Egger, M. von Ehrlich, "Absorptive Capacity and the Growth Effects of Regional Transfers: a Regression Discontinuity Design with Heterogeneous Treatment Effects", University of Warwick CAGE Working Paper No. 89.

<sup>&</sup>lt;sup>9</sup> S.O. Becker, EU Structural...op. cit., p. 7.

However, he subsequently qualifies the above-stated general observation by referring to individual regions' differing capacities in translating the external financial resources into additional growth. Becker adverts to. Pisani-Ferry et al. (2011) who analyzing the Greece's lack of success in using up the EU funding attribute it to the poor performance of the country's institutions. He further professes that "improving human capital and the quality of institutions may be viewed as two dimensions of enhancing absorptive capacity".

Becker presents his findings related to the three programming periods (1989–93, 1994–99 and 2000–06) indicating considerable differences between different types of regions in terms of the EU funds impact on the growth and investments. He finds out that the Objective 1 recipient regions characterized an educational attainment of the labor force lower than the EU average were not able to record additional growth on the basis of the external transfers, while regions endowed with better educated workers observed faster growth that the average recipient region. He has also identified similar relations between the region's governance quality and its ability to channel the EU funds towards additional growth (for example improvement of the quality of governance by one standard deviation in relation to the average leads to an additional 0.41 percentage points of per capita growth annually)<sup>11</sup>.

Professor Becker concludes that the most under-performing regions, that receive Objective 1 funds, are located not only in Greece, Italy, Portugal and Spain, but also in Malta and France, and asserts that if the given region hasn't built sufficient absorptive capacity, the EU structural funds do not result in medium-term growth effect.

Author further expands his evaluation of the Structural Funds effectiveness by analyzing the relationship between the amount of funds allotted to specific regions (of Objectives 1,2 and 3 combined) and the resultant impact on growth in the period 1994-1999 and 2000-06. He finds it striking that about 90% of all NUTS3 regions were the beneficiaries of the Regional Policy transfers (with the average annual cohesion policy transfers amounting to 23 million euro per NUTS 3 region), though he further explains than in some regions the received transfers were really tiny – for example, in the period 2000–06, transfers to the Swedish region of Hallandlän amounted to mere 5,345 euro, or 0.00009% of its GDP. At the same time he points at the, where in the programming period 1994-99 the transfers to the Greek state of Grevena stood at 29.1% of the regional product<sup>12</sup>.

Professor Becker duly notices the significant changes observed in the geographical distribution of the cohesion policy transfers which resulted from the EU expansion in 2004 (10 new members, including Poland )and in 2007 (Romania and Bulgaria). He underlines that the expansion of the EU to Central and Eastern Europe brought about a shift towards this part of Europe in 2000–06.

Author than states that from the theoretical perspective higher cohesion policy transfers might be expected to lead to higher greater additional growth, and contradicts this assertion by the evidence of decreasing returns from investment and

<sup>&</sup>lt;sup>10</sup> Ibidem, op. cit., p. 6.

<sup>&</sup>lt;sup>11</sup> Ibidem, op. cit., p. 7.

<sup>&</sup>lt;sup>12</sup> Ibidem, op. cit., p. 7.

investment-stimulating transfers. In this context he introduces the concept of "a maximum desirable level of the treatment intensity of EU transfers". Once this level of transfer is exceeded, no additional per capita income growth could be expected than below it. He underlines, that it would be highly beneficial to identify the said maximum desirable level of treatment intensity as well as a minimum necessary level of regional transfer intensity (below which no growth effects can be expected). He professes that such a delineation would, allow to achieve significant efficiency gains in the cohesion policy interventions by cutting transfers to regions that are above the former level and redistributing these funds to regions that are below the latter. He further calculates that, beyond a treatment intensity of 1.3%, per capita income growth no longer necessarily leads to additional economic expansion. According to his calculations in the programming periods 1994-1999 and 2000-06 cohesion policy transfers to approximately 18% of NUTS3 exceeded the level defined by him as the maximum desirable treatment intensity. However when it comes to the validity of the minimum desirable level of treatment intensity, he disproves his hypothesis by stating that "even for low levels of treatment intensity, additional transfers generate a significant amount of additional growth"<sup>13</sup>.

Having presented his incisive evaluation of the effectiveness of cohesion policy in the period 1994-2006, Professor Becker moves forward to present his proposals for the policy's improvement. Among his prepositions are: 1) imposition of an upper limit on the transfer intensity as a way of eliminating a further waste of policy's resources. 2) either reducing, thanks to the savings made thanks to the application of the above-mentioned threshold, of the overall budget of the cohesion policy or –if the size of the total budget is to remain unchanged - spending the "freed" resources on regions below the maximum desirable treatment intensity. 3) Since the effectiveness of transfers to regions with a poorly educated workforce and those with low quality of institutions and governance is dubious, they could be relocated to regions better posed to utilize them efficiently or, alternatively, 3b) the funds should be used in a more discretionally fashion to assure the formation of human capital and institution building and consequently leading to improved quality of governance. Author also admonishes that since the formation of human capital and institution building are time-consuming (and will take one generation rather than merely a few years) such a sea-change in cohesion policy would not lead to "miracles" in short-term or even in the medium-term, though it would be instrumental to building up absorptive capacity in the longer run and therefore have positive impact in the long-term <sup>14</sup>.

## 3. Regional Differences in the EU

Professor Becker illustrates such differences by indicating the disparities in terms of GDP per capita (at PPP) in the EU-25 observed in the year 1999 (the introduction of the "common currency" – Euro). Based upon his presentation, we have constructed our own comparative table analyzing the disparities observed on the level of the NUTS-2 regions in the 27 current members of the EU, using Eurostat's

<sup>&</sup>lt;sup>13</sup> Ibidem, op. cit., p. 10.

<sup>&</sup>lt;sup>14</sup> Ibidem, op. cit., p. 10.

data to compare the situation observed in 1999 with one which existed in 2009 (the last year for which regional data at the NUTS-2 level are available at the Eurosta's website). However we have expanded Professor Becker's approach not only by adding the data for 2009 but also by calculating –for each country presented hereinthe relation in GDP per capita between the richest and the poorest region. We have also calculated the degree of change in the latter ratio, in order to find out in which countries the disparities between the poorest and the richest regions are narrowing and in which they are becoming more pronounced.

Table 1
Disparities in the EU-27, GDP per capita (euro PPP) in 1999 and in 2009 (NUTS-2 level).

Disparities in the EU-27, GDP per capita (euro PPP) in 1999 and in 2009 (NUTS-2 level).							
	1999			2009			Change 1999-
						2009 (p.p.).	
	minimum	maximum	% rate	minimum	maximum	% rate	
			(max/min)			(max/min)	
			19				
Austria	13400	26500	7,8	19800	37900	191,4	-6,4
Belgium	14500	44600	7,6	18100	52500	290,1	-17,5
	3700	6800	183,8	6400	17700	276,6	92,8
Bulgaria							/
Cyprus	15500	15500	100,0	23500	23500	100,0	0
Czech Republic	10300	15500	150,5	15500	41200	265,8	115,3
Denmark	17400	28300	162,6	21100	34900	165,4	2,8
Estonia	7600	7600	100,0	14900	14900	100,0	0
Finland	14700	28400	193,2	20000	38500	192,5	-0,7
France							
(metropolitan)	15500	31800	205,2	19400	41500	213,9	8,7
Germany	13900	36600	263,3	18400	44100	239,7	-23,6
Greece	11400	20400	178,9	15300	29100	190,2	11,3
Hungary	6200	14800	238,7	9300	25500	274,2	35,5
Italy	12900	29900	231,8	15800	34700	219,6	-12,2
Latvia	6400	6400	100,0	12000	12000	100,0	0
Lithuania	6900	6900	100,0	12800	12800	100,0	0
Luxembourg	42400	42400	100,0	62500	62500	100,0	0
Malta	14400	14400	100,0	19200	19200	100,0	0
Netherlands	17100	29300	171,3	22700	40000	176,2	4,9
Poland	6100	13200	216,4	9600	22800	237,5	21,1
Portugal	11900	20500	172,3	14900	26400	177,2	4,9
Romania	3400	8600	252,9	6900	26100	378,3	125,4
Slovakia	6800	19200	282,4	11500	41800	363,5	81,1
Slovenia	12200	17200	141,0	16900	24600	145,6	4,6
Spain	10900	23200	212,8	16900	31900	188,8	-24
Sweden	18800	30400	161,7	23500	40400	171,9	10,2
United Kingdom	11800	53900	456,8	16100	78000	484,5	27,7

Source: Eurostat. Database. In case of Latvia, Lithuania, Malta, Cyprus and Luxembourg the country consist of the single NUTS2 unit, hence the minimum and maximum values are the same. Authors' calculations.

From the table 1, it can be ascertained that in 1999 the poorest region in the EU (with the GDP per capita at PPP amounted to 3400 euro) was located in Romania, while the most affluent (regional GDP per capita at almost 54 thousand euro) one was located in the United Kingdom. Therefore the poorest region was almost 16-times poorer than the richest one. When difference within individual countries are taken into account, the largest difference in the GDP per capita level could be observed in the United Kingdom - where the richest region was over 4,5 times more affluent that the poorest one; while the lowest disparities existed in Slovenia (the GDP of the

richest NUTS-2 region was only 40% higher than that of the poorest one. In case of Poland the ratio was almost 2.2.

However for the year 2009 the dubious distinction of having the poorest (6400 euro of GDP per capita, at PPP) region has been awarded to Bulgaria, while the richest one (78 thousand euro, at PPP) was, again, located in the United Kingdom. Consequently the difference between the richest EU region and the poorest one has narrowed significantly (to 12.2 times, as opposed to the ratio of 16 in 1999). On the national level the greatest differences in regional product were observed in the United Kingdom (with the ratio of 4.8), while Slovenia remained the least diversified EU country at the NUTS-2 level (with the richest region's product exceeding that of the poorest one by 45%). For Poland the analyzed ratio grew in the same period to 2.4

When it comes to cross-country comparisons of the regional disparities (at the NUTS2 level) in the European Union, our calculations show that between 1999 and 2009 of the 22 countries, for which the analysis of this level of territorial division was possible, such differences actually narrowed in 6 countries (Belgium, Germany, Italy, Spain, Finland and Austria - net contributors to the EU budget), and grew in the rest of the analyzed group (that is also in the EU funds beneficiaries). Though such a comparison can be somewhat misleading – one has to remember that in 2004 and 2007 two waves of EU expansion added 12 new member states, however they point out to the general trend toward diversification observed in the majority of EU countries - as we will later show, in case of Poland the EU funds cannot overcome these processes, but are instrumental in alleviating them to make the process of economic development more balanced regionally that it would have been under the "lack of EU-funds scenario".

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