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Absorption of Structural Funds – International Comparisons and Correlations

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Abstract

Structural Funds represent one of the main instruments which The European Union uses to sustain regional development and to eliminate disparities between members. Specialized literature is relatively poor when it comes to approaching this subject. In the period 2002-2006, several papers were written, which identified the absorption process's influence factors, but all these materials represented ex-ante analysis, the empirical testing of theories being virtually impossible.

The present paper, based on available statistical data related to the absorption process, aims at testing these factors, trying to elucidate the great differences obtained by the EU members within Central and Eastern Europe.

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Keywords: absorption; structural funds; European Union

1. Introduction

Following the expansion between 2004-2007 of the European Union (EU), the issue of the disparities within it has become more striking. The problem of differences between the economic levels of the member states has appeared before, throughout the existence of the European Union, but didn't have the same amplitude.

The policy of stimulating the economic growth, approached by the European Union is based on the endogenous growth models, such as the ones suggested by Robert Lucas in 1988, Grossman and Helpman in 1991.

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The main instruments which the European Union uses in order to accelerate the economic growth of the new members are grants for private and public investments. The funds granted by the EU are awarded based on several framework financing programs. These programs oblige the various entities interested in the implementation of certain investments to conceive projects or financing proposals.

The European Union policies have proved to be effective, if we take a look at the evolution of the countries which adhered in 2004, and we can observe that, within the first three years following the adhering, the rate of growth has been superior to the pre-adhering period. (Cace C., 2011, p. 89, according to RICHTER Sándor - 2007 Scenarios for the Financial Redistribution across Member States in the European Union in 2007-2013, wiiw Research Reports, Vienna, p. 443)

Table 1. Average Increase of GDP for the Countries which joined EU in 2004

	Average for the 2001-2003 period		Average for the 2004-2006 period
A EU 15	1,4%		2,2%
B New Members – 8	3,1%		5,3%
B-A (percentage points)	1,7%		3,1%
Estonia	8,6%	Latvia	10,4%
Lithuania	7,9%	Estonia	10,0%
Latvia	7,2%	Lithuania	7,5%
Hungary	4,2%	Slovakia	6,6%
Slovakia	3,8%	Czech Republic	5,5%
Slovenia	2,9%	Poland	4,9%
Czech Republic	2,7%	Slovenia	4,6%
Poland	2,1%	Hungary	4,3%

Source: Cace C., 2011, p. 89, according to RICHTER Sándor - 2007 Scenarios for the Financial Redistribution across Member States in the European Union in 2007-2013, wiiw Research Reports, Vienna, p. 437

Other authors are less optimistic. According to certain studies, the structural funds may stimulate the GDP growth in the Central and Eastern Europe countries by 0,7 % annually, while some econometric models indicate increase by a little over 0,1%. (Zaman G., 2009, p. 140)

Given all these favorable evolutions, one may appreciate that the policies of reducing the disparities performed by the European Union are effective and similar results should also perpetuate themselves for the future periods of time.

A key-factor of these policies is the budget granted to each member-state. Depending on the objective followed, on the economic level of development and on the size of the population, the budget is negotiated for each individual state; however, there is an upper limit (given by the Absorption capacity), as well as a lower limit (given by the Big Push concept) for the proposed budget.

Big Push: There is a minimum level of resources which must be dedicated to a development program, so that it has a chance of success. The launching of a country in a self-sustained economic growth process is similar to an airplane take-off. There is a minimum speed which the aircraft must reach for it to be airborne (Mikesell R. F., 2009, p. 49, according to The Objectives of the United States Economic Assistance Programs performed by the International Studies Center, Massachusetts Institute of Technology for the Senate Committee for International Help, 1957).

On the other hand, one must also talk about the absorption capacity concept, which represents the degree to which a country is able to effectively and efficiently spend the available financial resources (Oprescu G., 2006, p. 9).

Table 2. EU Funds Granted Compared to Annual GDP

	Bulgaria	Czech Republic	Estonia	Hungary	Latvia
Population (million)	7,6	10,5	1,3	10	2,2
Annual GDP (bil. euro)	36	145,9	14,5	98,4	18
GDP/ inh. (thousands euro)	4,74	13,90	11,15	9,84	8,18
EU Funds 2007-2013 (bil. euro)	6,7	26,3	3,4	24,9	4,5
EU Funds /inh. (thousands euro)	0,88	2,50	2,62	2,49	2,05
EU Funds/GDP	3,10%	3,00%	3,91%	4,22%	4,17%

Source: Data taken from KPMG – EU Funds in Central and Eastern Europe 2010

Table 3. EU Funds Granted Compared to Annual GDP

	Lithuania	Poland	Romania	Slovakia	Slovenia
Population (million)	3,3	38,2	21,5	5,4	2
Annual GDP (bil. euro)	27,4	353,7	121,9	65,9	36,1
GDP/ inh. (thousands euro)	8,30	9,26	5,67	12,20	18,05
EU Funds 2007-2013 (bil. euro)	6,8	65,3	19,2	11,4	4,1
EU Funds /inh. (thousands euro)	2,06	1,71	0,89	2,11	2,05
EU Funds/GDP	4,14%	3,08%	2,63%	2,88%	1,89%

Source: Data taken from KPMG – EU Funds in Central and Eastern Europe 2010

By analyzing the amounts granted to each member state and each country's level of development, we observe that the annual granted funds vary between 1,89% and 4,22% of the 2008 GDP.

The process of implementing these framework programs (absorption process of European funds) seems a relatively simple one, since any entity interested in the realization of an investment will conceive a project; among the requests received, authorities will choose the best financing proposals and will grant them funds.

One can make a distinction between the two sides specific to the absorption process, the side of the offer represented by the institutions which manage the funding programs – management authorities, intermediary bodies, regional centers, etc. and the side of the offer represented by the institutions and entities which wish to access funds (Oprescu G., 2006, p. 9).

The main factors which influence the level of absorption, identified in the previous studies, are: (NEI, 2002 pp. 2)

- The macro-economic absorption capacity, a factor which is based on the GDP evolution and on other macro-economic factors;
- The financial absorption capacity, being based on the capacity of co-funding projects;
- The administrative absorption capacity: this factor quantifying the institutions' capacity of evaluating, contracting, implementing and monitoring a level of projects which is suitable, both from the quantity point of view, as well as from the quality point of view.

If we analyze the results obtained by the Central and Eastern European countries which adhered to EU in 2004-2007, we observe that there is an extremely complex process.

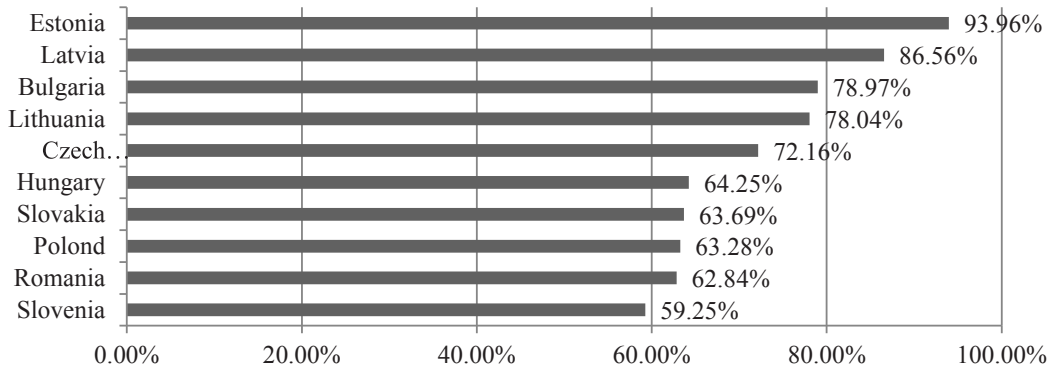


Fig. 1. Contracting Degree 2007-2011

Source: Data taken from KPMG – EU Funds in Central and Eastern Europe

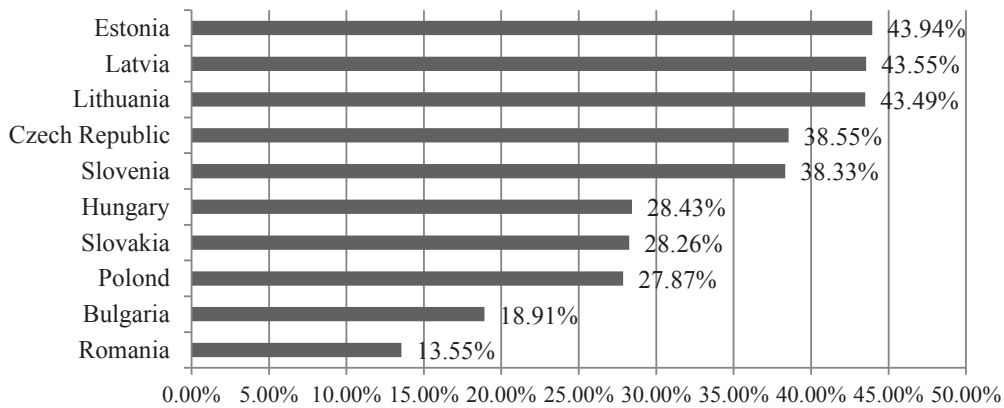


Fig. 2. Payment Degree 2007-2011

Source: Data taken from KPMG – EU Funds in Central and Eastern Europe 2011

The position occupied by Romania is unfavorable in both situations, the penultimate from the point of view of contracting degree for available funds and the last one considering the degree of payments performed within the implemented projects.

A very interesting thing is that the problem of low absorption had been discussed even before the adhering, in the introduction of the Analysis of Absorption Capacity of The EU Funds in Romania 2006 study, the coordinator of the paper, Gheorghe Oprescu, emphasizing: „At the present moment, in the relations with the European Union, the real stake for Romania is not accession. This will certainly take place sooner, or a little later. The real stake is how well-prepared will Romania be at the time of accession to absorb the significant funds it will have access to.”

In 2006, a first comparative analysis was performed regarding Romania’s preparing from the Administrative Absorption Capacities point of view, by the European Institute of Romania. At that moment, Romania had a backward position (obtaining a single B, only Slovenia having a worse result).

Table 4. Results of Comparative Analysis undertaken by European Institute of Romania

	RO	HU	CZ	SK	EE	SLO
Horizontal Evaluation						
Management	C (72%)	B (87%)	B (75%)	C (63%)	B (87%)	C (71%)
Planning	C (52%)	B (80%)	B (80%)	D (40%)	B (87%)	B (80%)
Implementation	C (53%)	C (72%)	C (56%)	C (52%)	C (68%)	C (52%)
Vertical Evaluation						
Structure	B (76%)	B (84%)	B (79%)	B (79%)	A (95%)	B(74%)
Human Resources	C (51%)	C (74%)	C (71%)	D (41%)	B (82%)	C(59%)
System and Procedures	D (45%)	C (60%)	C (50%)	D (40%)	C (60%)	C (50%)

Source: Oprescu G., 2006, p. 20

This study also emphasized the fact that many of the technical assistance programs that Romania was benefiting from at the time were simple formalities, the involvement of European partners being an unilateral one. The courses and seminars were focused on what the European Institutions could offer, but there wasn't any laborious analysis of the necessities which Romanian institutions were having. (Oprescu G., 2006, p. 60)

The paradox is the fact that, even though alarm signals had been drawn even before the adhering, Romanian authorities chose to ignore them.

2. Analysis of the results obtained

As for the EU funds' absorption, Romania's results are unfavorable, on December 31st 2011 the contracting degree being 63% while the degree of payments performed was of approximately 14%. That means that 63% of the available funds (aprox. 15.000 mil. euro) have been engaged in several projects, while only 14% of the available funds (aprox. 2.500 mil. euro) have been granted to entities which had contracted and implemented projects.

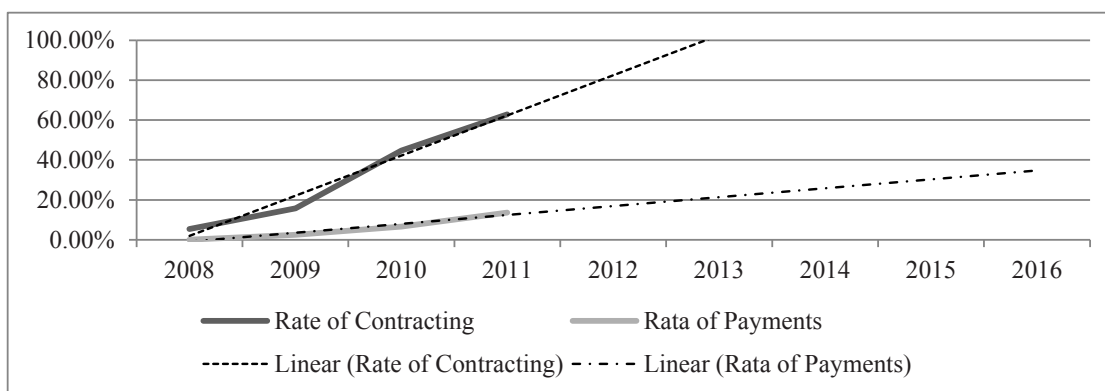


Fig. 3. Romania – Contracting Rate, Payments' Rate

Source: Data taken from KPMG publications

By graphically representing the evolution of the two rates, we observe that they describe an approximately linear movement. By analyzing the two indicators' trends, we see the fact that the contracting rate would reach the value of 100% by 2013. Basically, by the end of 2007-2013 period, the funds must be contracted, otherwise they will be decommitted.

The problem that arises is related to the rate of payments performed, which would have a value of below 40% in 2016 if will continue with the evolution that has happened until now. This evolution raises major problems, basically the Romanian state and its institutions being unable of reimbursing the money to the entities which had implemented projects.

This deadline (2016) cannot be extended, thank to the „n+3” regulation, which stipulated the fact that a contracted project must be implemented within 3 years. (Zaman G., 2009, p. 145)

The differences which appear among states are notable, regardless of talking about the level reached at the end of the programming period, or the growth rhythm of contracting funds, or the volume of payments performed to the beneficiaries. There is a set of factors which can explain the difference in evolution. Both analysis and research performed so far have focused on the states’ institutional absorption capacity (that is, on the quality of existent instruments and procedures), the impact of this factor being presented in the first part of this paper.

But this factor cannot be the only one responsible for the differences observed, the studies made on this particular issue identifying at theory level, two categories of factors: macro-economic factors and financial factors. (NEI 2002, Horvat 2004, Oprescu 2006).

3. Correlations

Within this section, we will try to explain three key-indicators of the absorption process (allocated budget, contracted funds and funds which were reimbursed to beneficiaries), with the help of several variables (especially, from the macro-economic and financial factors) of the states within the 2004-2007 adhering wave.

The first element which we want to analyze is the allocated budget, considering the 2007 GDP volume as an independent variable.

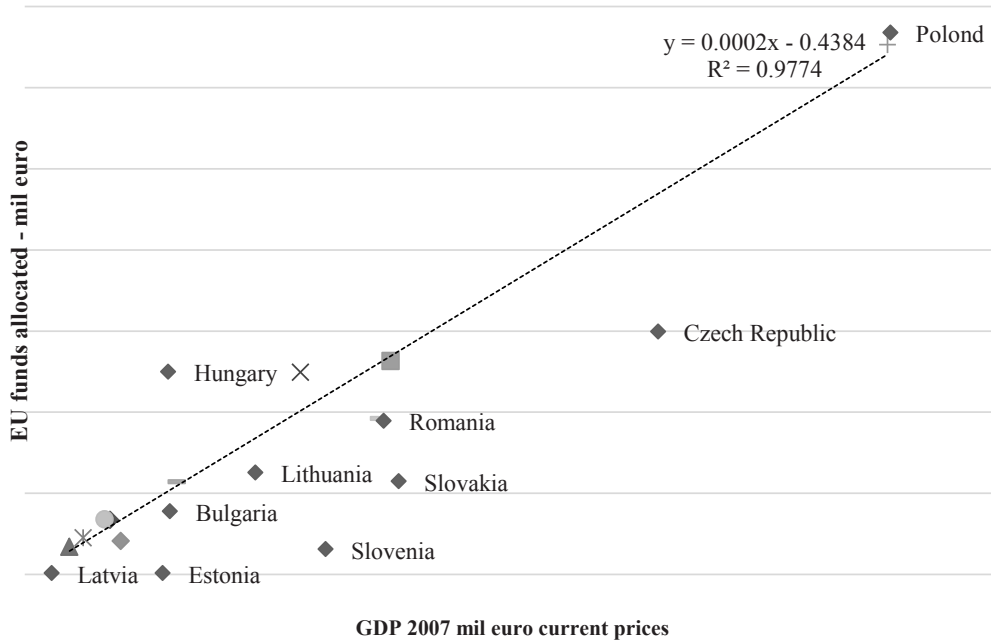


Fig. 4. Correlation Funds allocated from the EU budget and GDP in 2007
 Source: Data taken from KPMG publications and Eurostat

The correlation between the two (as observed in figure 4 and in table 4, the coefficient is approximately 1, revealing a nearly perfect relationship) is not a new idea, having been presented in the above mentioned papers.

This correlation is a desired one, representing an instrument of determining the volume of granted funds.

The contracted funds, the funds reimbursed to the beneficiaries respectively, regardless of being expressed as absolute volumes and percentage rates, are much harder to explain by determining factors, thanks to the complexity of connections.

Table 5. Pearson Correlation Coefficient

Correlations		Available EU funds
GDP 2007	Pearson Correlation	0,989**
	Sig. (2-tailed)	0,000
	N	10

** Correlation is significant at the 0.01 level (2-tailed).

Source: Author's calculations using SPSS

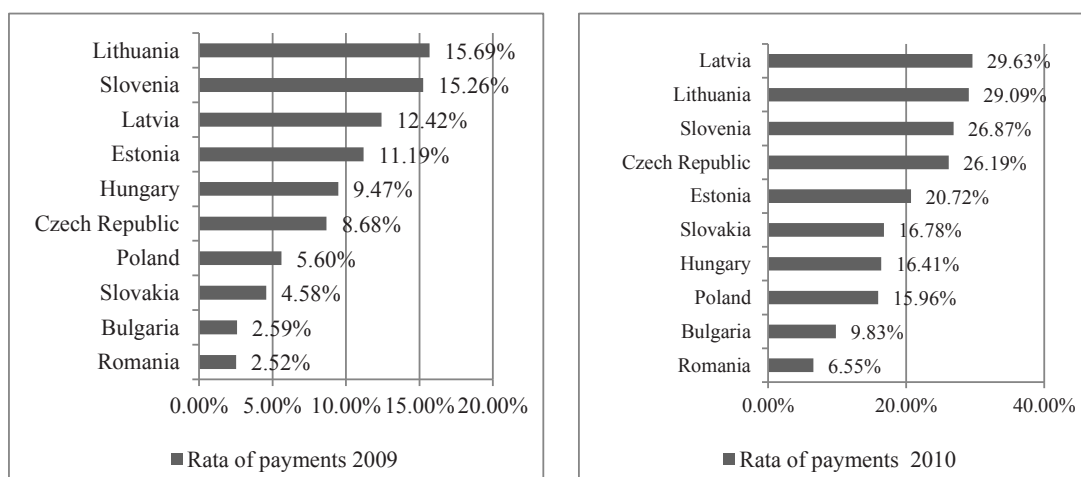


Fig. 5. Rates of payments to beneficiaries of projects in 2009 and 2010

Source: Data taken from KPMG publications

A first variable which must absolutely be mentioned is the adhering year, in the first half of the 2007-2013 period, one observing a clear distinction between the states which adhered in 2004 and those who adhered in 2007. The differences were attributed to the entire absorption system (authorities, consultants, beneficiaries). In the majority of the states, the first data regarding the contracted amounts were available starting with the end of 2008, while the data regarding the payments performed became available only with the end of the year 2009. Years 2009 and 2010 are the first years for which there is data concerning the volume of funds reimbursed to the beneficiaries. As for the contracting process, the distinction is not so evident, but equally the indicator which best presents the absorption process is the rate of payments made to the beneficiaries. Romania and Bulgaria are not singular examples within this process, since more countries which adhered to the European Union had problems with the absorption of community funds, at least during the first years. (Zaman G., 2009, p. 144)

The first variable which we will analyze as determining factor for the contracting funds and those reimbursed to the beneficiaries, is the GDP. Given the connection between this indicator and the budget granted, it is to be expected that there is a direct linear connection with the contracted funds, respectively with the ones reimbursed to the beneficiaries.

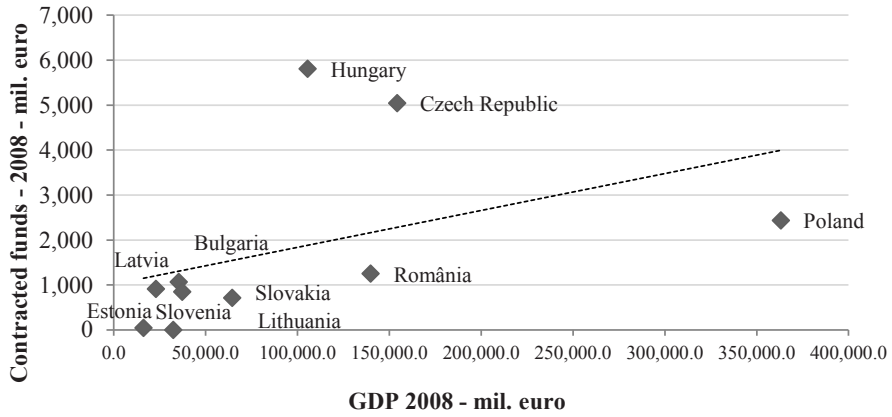


Fig. 6. Correlation GDP and Contracted Funds in 2008
 Surce: Data taken from KPMG publications and Eurostat

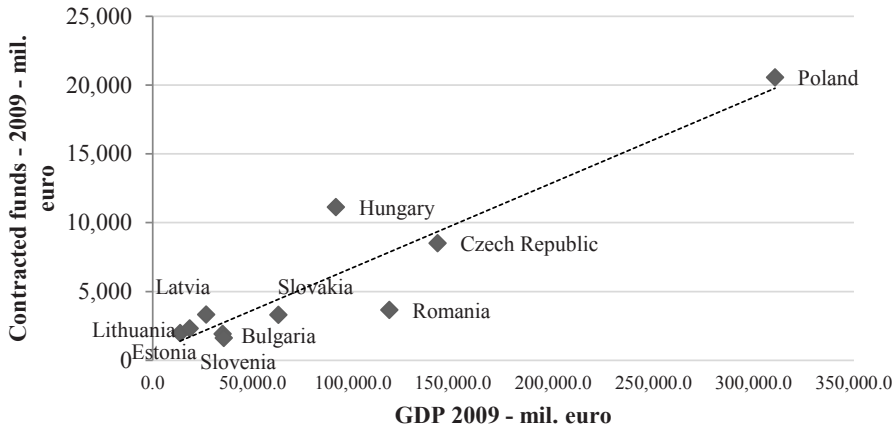


Fig. 7. Correlation GDP and Contracted Funds in 2009
 Source: Data taken from KPMG publications and Eurostat

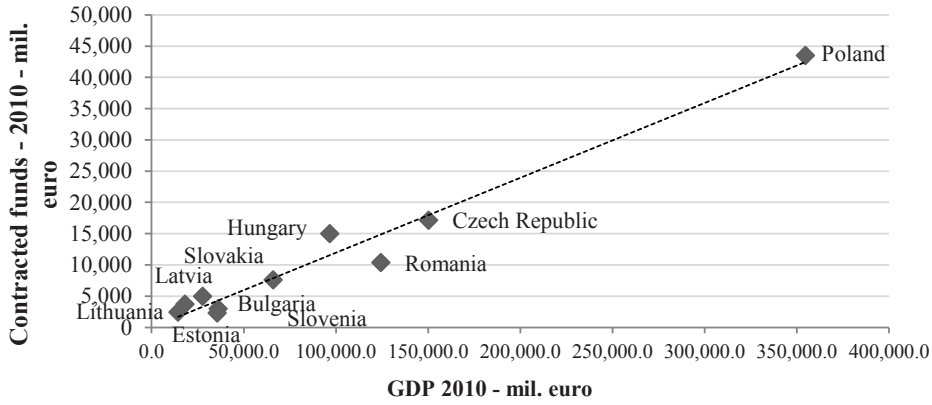


Fig. 8. Correlation GDP and Contracted Funds in 2010
Source: Data taken from KPMG publications and Eurostat

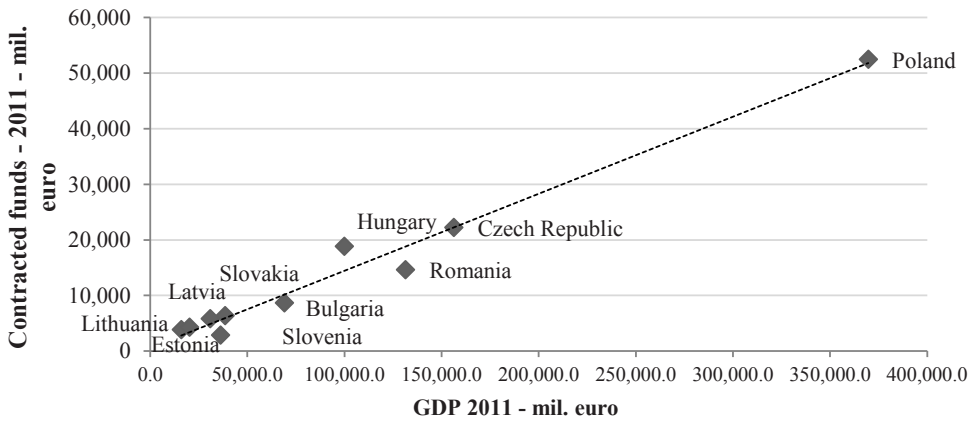


Fig. 9. Correlation GDP and Contracted Funds in 2011
Source: Data taken from KPMG publications and Eurostat

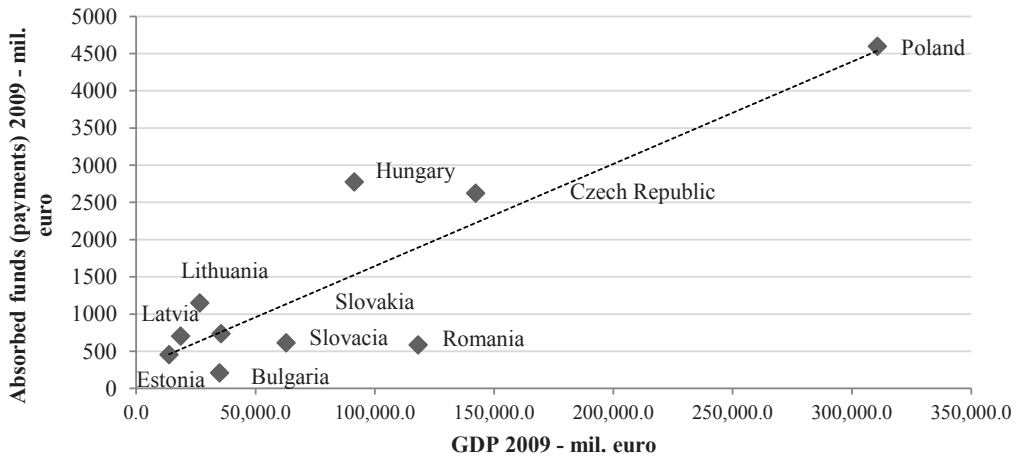


Fig. 10. Correlation between GDP and Reimbursed Funds in 2009
Source: Data taken from KPMG publications and Eurostat

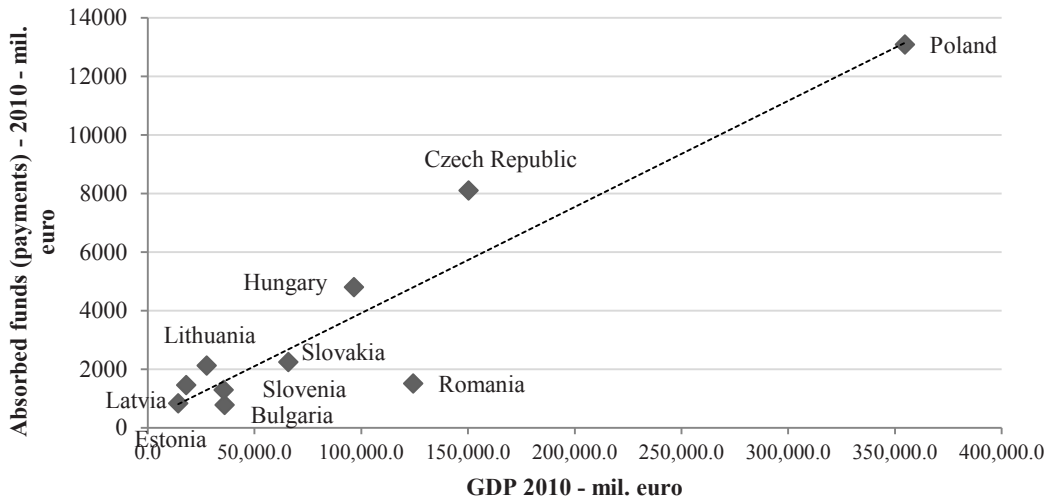


Fig. 11. Correlation between GDP and Reimbursed Funds in 2010
Source: Data taken from KPMG publications and Eurostat

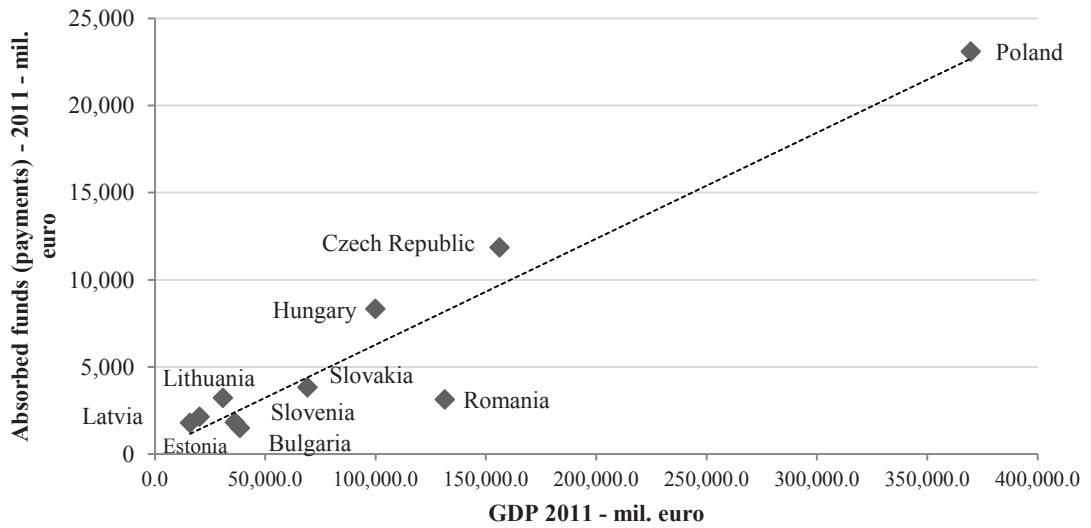


Fig. 12. Correlation between GDP and Reimbursed Funds in 2011
Source: Data taken from KPMG publications and Eurostat

Table 6. Pearson Correlation Coefficients

Correlation 1		Correlation 2	
Contracted Funds 2008		Contracted Funds 2009	
GDP 2008 Pearson Correlation	0,428	GDP 2009 Pearson Correlation	0,924**
Sig. (2-tailed)	0,217	Sig. (2-tailed)	0,000
N	10	N	10

Correlation 3		Correlation 4	
		Contracted Funds 2010	Contracted Funds 2011
GDP 2010	Pearson Correlation	0,984**	0,988**
	Sig. (2-tailed)	0,000	0,000
	N	10	10

Source: Author's calculations using SPSS **.Correlation is significant at the 0.01 level (2-tailed).

The coefficients from table 5 and figures 6, 7, 8 and 9 present the correlations between the volume of contracted funds and GDP value in 10 countries members of the European Union from Central and Eastern Europe. In the first stage, 2008 – table 5 correlation 1, figure 6, there cannot be identified any dependency between the two variables, the value of the coefficient being less the 0,5, but the more the implementation advances, the year of 2009 – table 5 correlation 2, figure 7, the year of 2010 – table 5 correlation 3, figure 8, a connection directly proportional between the two variables is being defined. If we analyze figure 9 and table 5 correlation 4, representing the layout of data from 2011, we observe the existence of a very strong direct connection (the Correlation coefficient is closest to 1,00).

Table 7. Pearson Correlation Coefficients

Correlations 1		Correlations 2	
Absorbed funds 2009		Absorbed funds 2010	
GDP 2009	Pearson Correlation	.874**	.931**
	Sig. (2-tailed)	.001	.000
	N	10	10
Correlations 3			
Absorbed funds 2011			
GDP 2011	Pearson Correlation	.953**	
	Sig. (2-tailed)	.000	
	N	10	

Source: Author's calculations using SPSS

The coefficients from table 6 and figures 10, 11 and 12 present the correlations between the volume of funds reimbursed to the beneficiaries of projects which are being implemented and the GDP value in the countries which adhered to the European Union in the 2004-2007 wave. We can observe a similar evolution in figure 10 – year of 2009- as there is a weak connection between variables, while in figures 11 and 12 respectively, it becomes evident. The correlation coefficients support this idea, throughout the three years that are analyzed the coefficient moves closer to 1.

One element which can be observed, in the case of the analysis of funds reimbursed to the beneficiaries, is Romania's position, which maintains itself a notable distance below the trend line, given that in 2011 all the other countries are whether above or on the trend line.

We can mention a conclusion of an important author in the field, who, in the article published in 2009, said: The relation between the absorption capacity of structural funds and the regional economic situation is a paradoxical one, the practice proving that the most disadvantaged regions also face the greatest difficulties in the absorption of these funds. (Zaman G., 2009, p. 142)

This paradox is partially validated by the present paper, in the sense that Romania, even though it has a precarious position from the economic development point of view, does not manage to absorb the funds made available by the European Union, our country’s example being unique. There are countries which have a smaller GDP and still manage to place themselves on the trend line.

The second type of factor which influences the absorption of community funds is represented by the financial capacity of the beneficiaries in implementing the projects. The effects of this factor should better be observed in the case of the funds reimbursed by the authorities to the beneficiaries. An ideal indicator which presents this financial absorption capacity would be the reference interest rate for credits. By using the evolution of this indicator and the evolution of the reimbursement rate to the beneficiaries, we should identify an inversely proportional connection.

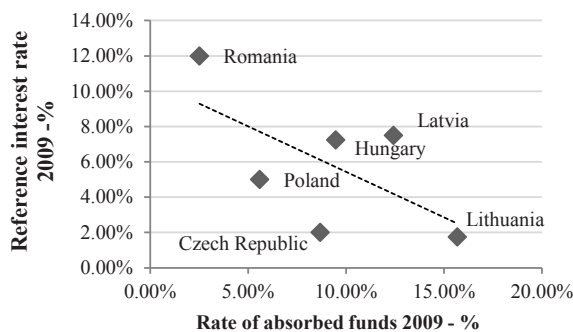


Fig. 13. Correlation Reference Interest Rate and Reimbursed Funds in 2009
Source: Data taken from KPMG publications and Eurostat

Table 8. Pearson Correlation Coefficient

		Absorption rate 2009
Interest Rate 2009	Pearson Correlation	-0,626
	Sig. (2-tailed)	0,184
	N	6

Source: Author's calculations using SPSS

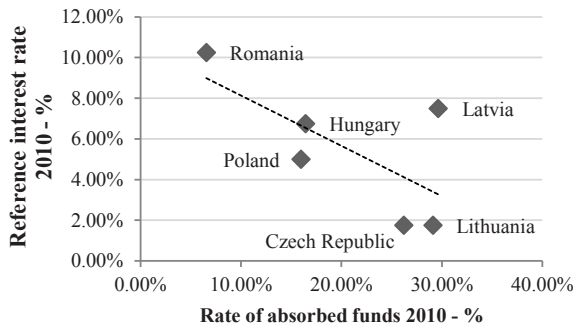


Fig. 14. Correlation Reference Interest Rate and Reimbursed Funds in 2010
Source: Data taken from KPMG publications and Eurostat

Table 9. Pearson Correlation Coefficient

		Absorption rate 2010
Interest Rate 2010	Pearson Correlation	-0,677
	Sig. (2-tailed)	0,140
	N	6

Source: Author's calculations using SPSS

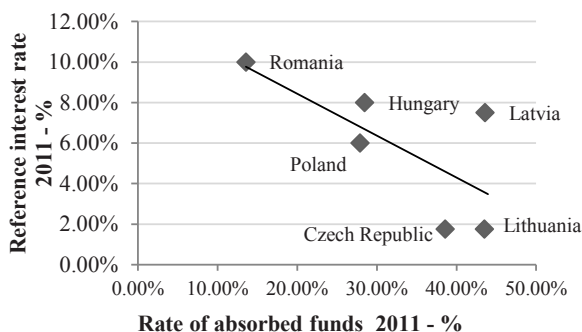


Fig. 15. Correlation Reference Interest Rate and Reimbursed Funds in 2011
Source: Data taken from KPMG publications and Eurostat

Table 10. Pearson Correlation Coefficient

Interest Rate 2011	Pearson Correlation	Absorption rate 2011
		-0,704
	Sig. (2-tailed)	0,118
	N	6

Source: Author's calculations using SPSS

If in 2009 the correlation between the two variables is relatively weak (the correlation coefficient is $-0,626$, slightly below $-0,5$), in 2011 it becomes more noticeable (the correlation coefficient is $-0,704$, increasing in intensity by approx. 12%), but it is far from a perfect link, proving that this factor is one with medium influence on the absorption process. One may observe the fact that bigger countries (Poland, Hungary, Romania) have a slower reimbursement rhythm, but also have bigger reference interests, a fact which is observed by seeing the left layout of the trend line.

However, we cannot neglect the fact that, from all the analyzed countries (the analysis took into consideration the Central and Eastern Europe countries which adhered to the EU in 2004, 2007, from the reference interest rates perspective, EUROSTAT offering data only for those presented in the figure), Romania presents the biggest reference interest rate for credits and the lowest rate for the funds reimbursed to the beneficiaries.

4. Conclusions

The funds made available to EU's young members represent an instrument which has proved its effectiveness, the simple making available of the structural funds does not ensure success. Although all the Central and Eastern Europe countries have vital need of funds in order to sustain their economic growth, the results of the absorption process strongly varies from one member to the others.

The absorption process lies, as we've shown in the first part of the paper, in the responsibility of each state – member. The European Commission grants funds, proportional to each state's GDP, but the institutional system, the procedures, the capacity of the beneficiaries to contract the necessary co-financing are all elements in which the national authorities have a decisive role.

Taking this issue strictly from the quantitative absorption point of view (volume of contracted funds, respectively those reimbursed to beneficiaries), the countries which adhered in 2007, feel a certain lack of experience, their results being, in the first phase, below the results of the countries which adhered in 2004, the latter having benefited from a short experience with the structural funds throughout 2004-2006.

Among the three categories of factors which influence absorption, mentioned by theory, all of them have been tested practically:

- Macro-economic factors: evolution of GDP has proved to be important for the evolution of contracted funds and of those reimbursed to the beneficiaries, the only exception from this correlation, which besides, generated paradox in some authors' vision, is Romania, which's volume of reimbursed funds is abnormally small;
- Factors related to the administrative capacity: in the study coordinated by Gheorghe Oprescu in 2006, under the European Institute from Romania, it is shown that close to the moment of Romania's adhering, the country was not administratively prepared (the institutional structure existed, but the human resources and the existent procedures needed much to be adequate);
- Factors related to the co-financing capacity: as a representative indicator for this factor the reference interest for credit has been chosen, Romania occupying also a backward position, since it presented one of the highest rates.

In essence, the evolution of indicators for Romania is not a paradox, but a concurrence of factors which potentiate one another, all three categories of factors being unfavorable to Romania, their overall effect being stronger than their sum.

The problems which Romania should approach in order to quantitatively improve them, point mainly at the ability of the institutions of managing the process. Thus, this malfunction strongly affects the existent beneficiaries, one paper worth mentioning being the one written by Ioana Morovan, performed under the Romanian Centre for European Policies, a work which mentioned multiples problems in the relation beneficiaries-institutions.

In subsidiary, Romanian authorities should improve the beneficiaries co-financing capacity more, since, despite the efforts made for the facilitating of the credit, this category of factors maintains its effect.

Any corrective action which might be approached will have a limited effect, considering the fact that we now find ourselves in the last year of the 2007-2013 period, but the system must be prepared for the future 2014-2020 exercise.

5. References

- Cace C. (main author) - Absorption of The Structural Funds in Romania, *Romanian Journal of Economic Forecasting* – 2/2011;
- Grossman G. (main author) – *Innovation and Growth in the Global Economy*, MIT Press, Massachusetts 1991;
- Guillaumont P. (main author) - Big Push versus Absorptive Capacity: How to Reconcile the Two Approaches, United Nations University WIDER Conference “Aid: Principles, Policies and Performance” Helsinki, 16-17 June 2006 ;
- Horvat A. - Why does Nobody Care About the Absorption? Some Aspects Regarding Administrative Absorption Capacity for the EU Structural Funds in the Czech Republic, Estonia, Hungary, Slovakia and Slovenia before Accession, WIFO Working Papers, No. 258, August 2005;
- Horvat A. (main author) - Regional development, Absorption problems and the EU Structural Funds; Some aspects regarding administrative absorption capacity in the Czech Republic, Estonia, Hungary, Slovakia and Slovenia, ERSA Conference, Austria, Vienna, 2004;
- Jaliu D. (main author) – Six Years In Managing Structural Funds In Romania. Lessons learned, *Transylvanian Review of Administrative Sciences*, No. 38 E/2013, pp. 79-95;
- Katar S. – *Rural Development: Principles, Policies and Management*, Ed. SAGE Publications, New Delhi, 2009;
- Lucas R. – On the Mechanics of Economic Development, *Jurnal of Monetary Economics* 22 (1988), 3-42 North Holland;
- Mikesell R. F. – *The Economics of Foreign Aid*, Ed. Transaction Publishers, Rutgers, New Jersey, 2009;
- Morovan I. – Are we on schedule? 2010: first balance – Using of the structural funds, *European Politics Romanian Center*, Bucharest, 2010;
- NEI Regional and Urban Development - Key Indicators for Candidate Countries to Effectively Manage the Structural Funds, Rotterdam, 2002;
- Oprescu G. (coordinator) - Analysis of Absorption Capacity of The EU Funds in Romania, *European Institute of Romania – Pre-accession impact studies III*, Bucharest, 2006;
- Stiglitz J. (main author) – *Economy*, Economica Ed., Bucharest, 2005;
- Zaman G. (main author) - EU Structural Funds Absorption in Romania: Obstacles and Issues, *Romanian Journal of Economics*, Volume 32 (2011(XXI)), pp. 60-77;
- Zaman G. (main author) - Structural Fund Absorption: A New Challenge for Romania? *Romanian Journal of Economic Forecasting* – 1/2009;
- The National Institute of Statistics - Romania in numbers 2012;
- The National Institute of Statistics - Romania in numbers 2011;
- KPMG – EU Funds in Central and Eastern Europe 2011;
- KPMG – EU Funds in Central and Eastern Europe Progress Report 2007-2010;
- KPMG – EU Funds in Central and Eastern Europe Progress Report 2007-2009;
- KPMG – EU Funds in Central and Eastern Europe Progress Report 2007-2008;
- The National Bank of Romania – www.bnr.ro
- The National Prognosis Committee – www.cnp.ro
- Eurostat - <http://epp.eurostat.ec.europa.eu>
- The National Institute of Statistics – www.insse.ro
- The Ministry of European Affairs - <http://www.maeur.ro>
- Web Portal of Bulgaria Community Funds - <http://www.efunds.bg/en/>
- Web Portal of Estonia Community Funds - <http://www.strukturifondid.ee/en/>
- Web Portal of Latvia Community Funds - <http://www.esfondi.lv/events.php?id=496>
- Web Portal of Poland Community Funds - <http://www.funduszeuropejskie.gov.pl/english/>
- Web Portal of Czech Rep. Community Funds - <http://www.strukturalni-fondy.cz/en/>
- Web Portal of Romania Community Funds - <http://www.fonduri-ue.ro/>
- Web Portal of Slovenia Community Funds - http://www.eu-skladi.si/?set_language=en
- Web Portal of Hungary Community Funds - http://www.nfu.hu/development_programmes