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## **A Decade of EU Membership: Evolution of Competitiveness in Romania**

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**Abstract:**

*We analyse in this paper the main achievements of Romania in terms of competitiveness during the period of ten years since joining the European Union. The analysis is based on a proposed Competitiveness Index, which is constructed on the basis of five indicators that express the progress of reforms in the following areas: business environment, labour market, state institutions, taxation, and human capital.*

*The analysis is carried out in a comparative perspective, at three levels: with Bulgaria, which joined the EU the same year; with three countries from Western Europe; and a group of countries from Central and Eastern Europe that integrated the EU earlier, in 2004.*

*We find a strong convergence in terms of competitiveness between Romania and the other neighbouring countries, as well as a slower but increasing convergence towards the “old” EU member states.*

**Keywords:** Romania; Competitiveness; European Union; Convergence

**JEL classification:** J24; L51; O15; O38; O52;

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## Introduction

After the first wave of EU enlargement towards the Eastern part of the continent, which took place in 2004, Romania and Bulgaria joined the European Union in 2007. The EU integration of countries belonging to the former communist block was aimed at modernising the institutional and legislative framework in the new member states, while bringing significant economic advantages from trade openness, investment enhancement and increased competitiveness of domestic commodities, all culminating with a major improvement of living standards of the population.

The advantages of joining the EU have been amply analysed in the specialised literature. Apart from the positive impact on democracy (Sedelmaier, 2014), the process enhanced the overall European cohesion (Weisse *et al.*, 2001; Thalassinos, 2007; 2008; Thalassinos *et al.*, 2009; 2010; 2014; 2015a; 2015b; Allegret *et al.*, 2016; Grima *et al.*, 2016; Rupeika-Apoga and Nedovis, 2015; Duguleana and Duguleana, 2016; Boldeanu and Tache, 2016) and contributed essentially to peace and stability on the continent (Avery *et al.*, 2009). In economic terms, the EU integration of Central and Eastern European countries has brought stronger economic growth according to a first evaluation of the European Commission (2006). This growth accelerated the process of economic convergence between old and new member states (EURACTIV, 2010), in particular as a result of increased flows of Foreign Direct Investment, trade liberalisation (Efstathiou, 2011; Pociovalisteanu *et al.*, 2010) and improvement of labour productivity (Campos *et al.*, 2014). All these elements bring more efficiency in production at the firms' level (Bchir *et al.*, 2003) and therefore increased competitiveness.

In general, the literature on assessing the impact of EU enlargement is relatively scarce, and no major studies have been elaborated for the Romanian case. In this paper we therefore attempt to evaluate quantitatively the qualitative outcomes of a decade of EU membership. Instead of focusing on the final impact, we analyse the evolution of structural elements that have led to those positive outcomes: economic competitiveness, improvement of institutional and legal framework, and the overall progress in terms of human development.

The second section of the paper presents the methodological background. The results of the assessment are described in Section 3, while the last section summarises the main conclusions and findings.

## The Methodological Framework

The evaluation of Romanian progress over the first decade of EU membership consists of constructing a Competitiveness Index (CI), which shows the cumulative

effect of reforms in five major areas. In each area, we use an indicator that is internationally comparable and, at the same time, expresses the best the evolution of the situation over the corresponding period:

- i) ***Competitive Business Environment***: the economic integration in the EU is equivalent to a major improvement of entrepreneurial conditions, such that private businesses can operate in a competitive environment. The most appropriate indicator in this case is the Business Freedom (BF) used by Heritage Foundation (2016). The index is a quantitative measure of the ability to start, operate and close a business, and therefore represents the overall burden of regulation as well as the government efficiency in the regulatory process. It takes values from 0 to 100, the highest value expressing the freest business environment.
- ii) ***Competitive Labour Market***: the second important element of economic competitiveness is related to the overall regulatory environment on the labour market. A permissive business environment without a friendly framework for employment will be damaging for the overall economic performance. The indicator used to express the evolution of labour market competitiveness is the Labour Freedom (LF), equally provided by Heritage Foundation. The index is determined as a quantitative measure of legal and regulatory framework on the labour market, and measures the impact of regulations in terms of minimum wage, layoffs and hiring procedures, severance requirements, etc. The LF takes values from 0 to 100, the highest value representing the freest framework.
- iii) ***Competitive State Administration and Institutions***: good governance at the level of state administration favours significantly the economic environment through the appropriate translation of public policies into adequate conditions for individuals and businesses to develop. The most important element that negatively affects the good functioning of public institutions is the corruption. Consequently, the indicator used for analysis of this domain is the Corruption Perception Index (CPI) of Transparency International (2015), which expresses the perception of experts and business people on the corruption in the public sector. It ranges between 0 and 100, the lower values indicating high corruption.
- iv) ***Transparent and facile Taxation System***: While the Business Freedom and Labour Freedom describe the situation in the private sector, the taxation system indicates the efficiency of the government in using public resources – therefore in ensuring social equity in the redistribution process. The individuals and the businesses are ready to pay taxes if the collected revenues are properly, efficiently and transparently used. These elements are well reflected by the Paying Taxes (PT) indicator proposed by the World Bank (2016) in the Doing Business ranking. The

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indicator expresses the ease of paying taxes by firms and households in terms of time spent for paying them, the rate of taxation, and the number of taxes charged. It ranks from 0 to 100, with high values indicating a performant – therefore easy to pay – tax system.

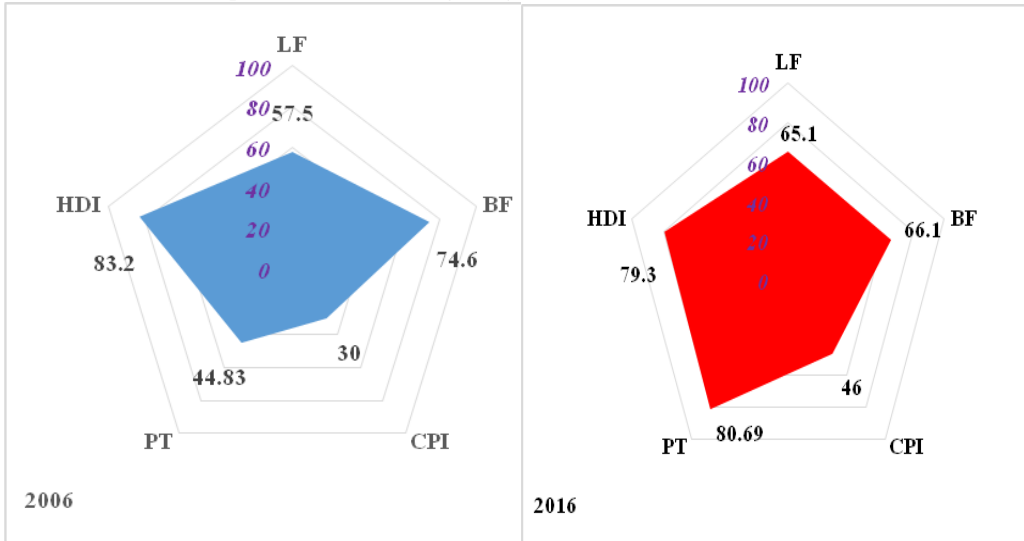
- v) **Competitive Human Capital:** The ultimate objective of any government policy should be the development of human capital through the provision of adequate social services in education, health care and social protection. This can be best expressed by the UN (2015) Human Development Index (HDI), which combines those elements. Like the previous indicators, the HDI takes values within the interval 0 – 100, high levels indicating a developed human capital.

These five indicators are combined to calculate an aggregate Competitiveness Index, using a similar methodology like the one developed by Meunier and Zaman (2015). The first step is to represent the corresponding indicators in a Pentagon of Competitiveness; this gives visual information about their respective individual contribution to the overall competitiveness of the country. Then we calculate the area delimited by the five indicators; the CI is the percentage share of the corresponding area in the total surface of the pentagon. In other words,  $(100 - CI)$  represents the distance from perfect competition.

### **The Interpretation of Results**

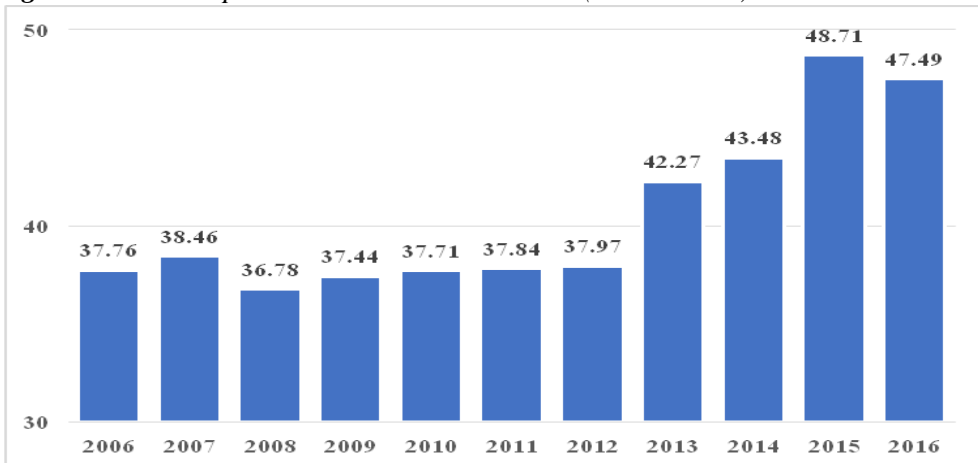
In Figure 1 we represented the Pentagon of Competitiveness in 2006 – the year before EU integration, respectively in 2016 (Annex 1 provides the pentagons for the remaining years from 2007 to 2015). It can be observed that over the ten years of EU membership Romania recorded a net progress with respect to three indicators: Labour Freedom, which increased from 57.5 to 65.1; Corruption, where the CPI gained 16 units; and Paying Taxes, which recorded the most significant progress (an overall increase by 80%). However, there is a net regress of the Business Freedom indicator (by 8.5 units lower), respectively Human Development Index, which passed from 83.2 in 2006 to 79.3 in 2016.

**Figure 1: The Competitiveness Pentagon of Romania (2006 and 2007)**



Overall, the Competitiveness Index gained almost 10 units over the decade (Figure 2). However, this progress was achieved practically during the last 4 years of the period, starting with 2013; In 2012 Romania was practically at the same level as the one recorded in 2006, prior to the integration. Moreover, during the first three years after joining the EU, the Romanian competitiveness was even lower than in 2006, but this is a common trend for most of the other countries in Europe. The highest CI level in Romania was recorded in 2015 (48.71); the decline in 2016 is due to the deterioration of two indicators: Labour Freedom and Business Freedom; each of them lost in 2016 more than 5% of their previous values.

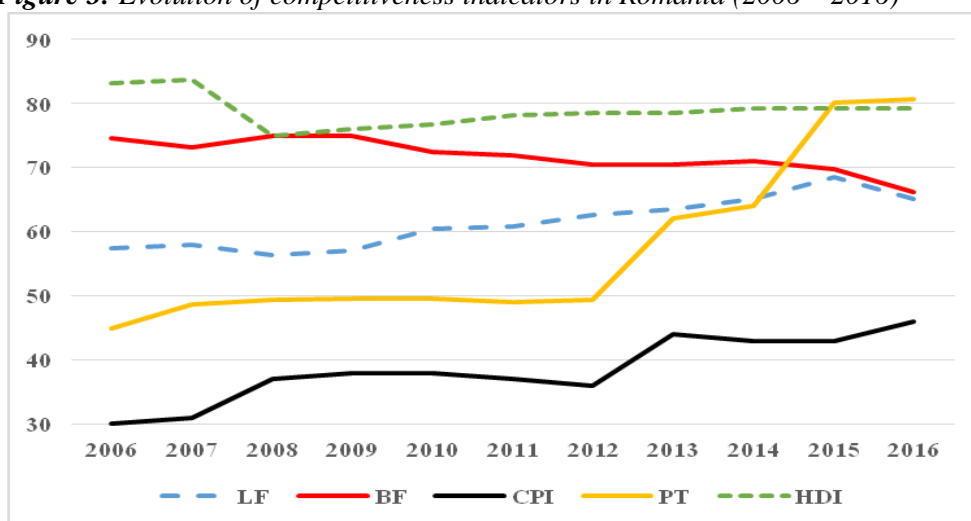
**Figure 2: The Competitiveness Index in Romania (2006 – 2016)**



At the level of individual indicators, the most impressive improvement is recorded by the Paying Taxes, which almost doubled its value over the ten-year period, followed by the Corruption index, which increased by 53.3% over the same time horizon (Figure 3). Modest progress has been recorded in the field of Labour Freedom, while the Human Development Index in 2016 was lower than a decade ago.

The HDI deterioration is essentially caused by the massive emigration of educated Romanians; in 2008, one year after joining the EU, the indicator dropped suddenly by 11.6% as a result of the emigration phenomenon.

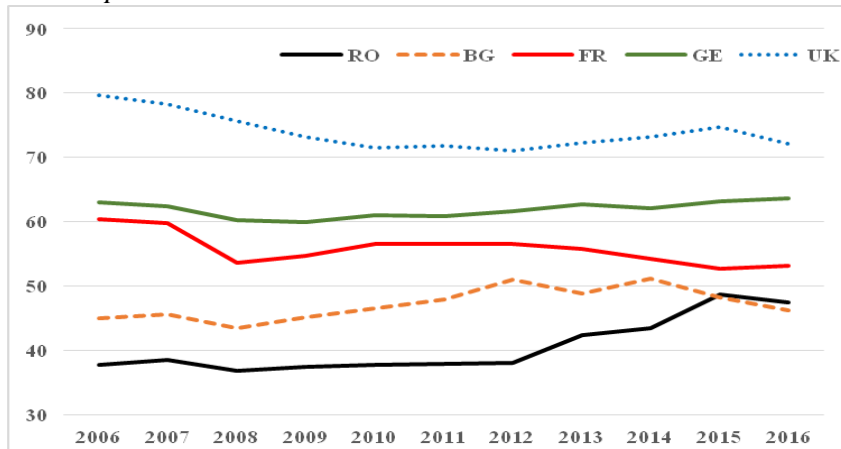
**Figure 3:** Evolution of competitiveness indicators in Romania (2006 – 2016)



As compared to neighbouring Bulgaria (BG), which joined the EU the same year, Romania (RO) started the period with a handicap of more than 7 units in terms of competitiveness. In 2006, the CI of Bulgaria amounted to 44.93, while the Romanian CI was 37.76; that year, the highest difference between the two countries was at the level of Labour Freedom (1.4 times superior in Bulgaria) and Corruption (33.3% higher in Romania). Only the Business Freedom indicator of Romania was above the Bulgarian level in 2006 (5.8% higher).

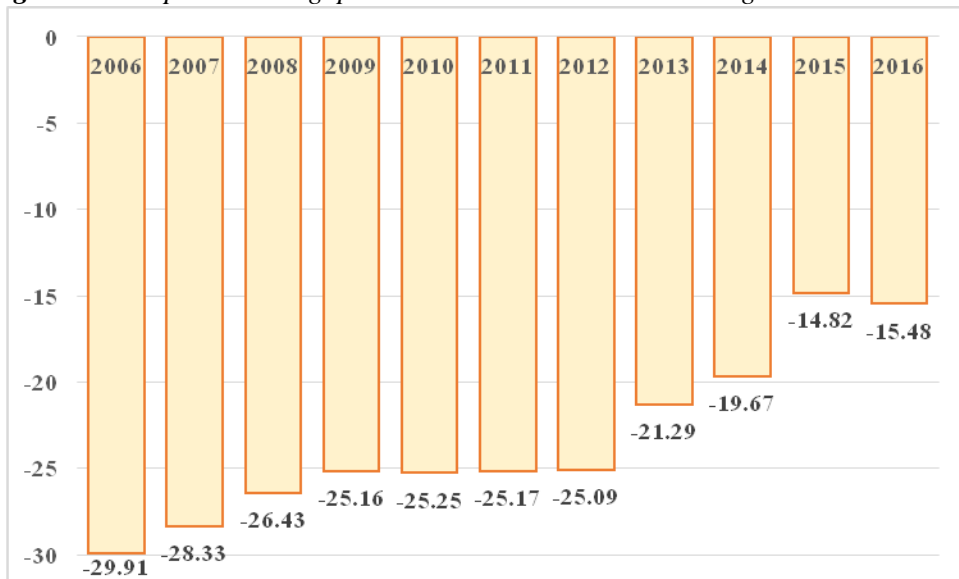
However, ten years later, Romania recorded an index of 47.79, which is slightly higher than the one recorded the same year by Bulgaria (46.23). It means that the pre-accession reforms were better prepared in Bulgaria, but the EU integration helped significantly the convergence of competitiveness between the two countries.

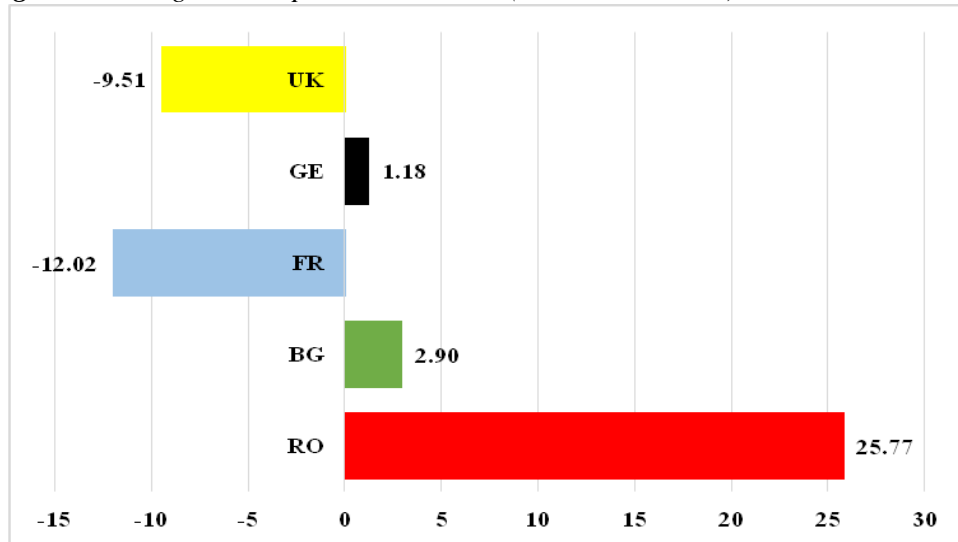
**Figure 4: Competitiveness Index in selected EU countries**



When compared to some of the “old” member states (Figure 4), Romania is still far from countries like Germany (GE) and United Kingdom (UK) with respect to the Competitiveness Index, but relatively close to France (FR). However, the CI gap between EU average and Romania has shrunk significantly since the accession (Figure 5). This is partially due to the decline in competitiveness in France and UK, but mostly to the major increase of CI in Romania between 2006 and 2016 (Figure 6).

**Figure 5: Competitiveness gap between Romania and EU average**



**Figure 6:** Change in Competitiveness Index (2016 versus 2006) in selected countries

As a first conclusion, the EU integration has contributed to a large extent to the convergence between the new members of the union and their Western counterparts. This process has been facilitated by the rapid progress of reforms, in particular in Romania, but also by the relatively low speed of competitiveness increase in Western countries.

The economies of “old” members of the union have reached a steady state level of growth in competitiveness, which allows the new members to catch up: in ten years, the gap between the highest and lowest Competitiveness Index passed from 41.85 (between UK and Romania) in 2006 to only 25.8 (between UK and Bulgaria) in 2016. If the current trend persists, by 2022 Romania will reach the French level of competitiveness; however, in order to catch up with the most competitive economies (Germany and UK), Romania will need 20 years from now, under the assumption that the current trend remains the same in the future.

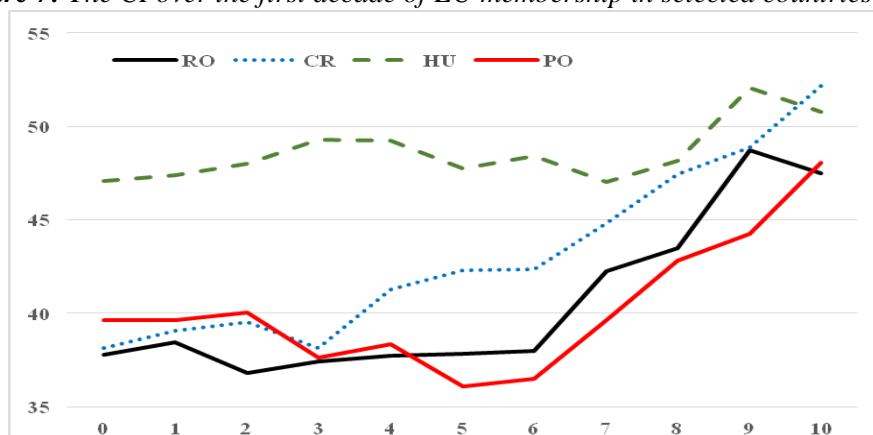
Another interesting comparative analysis is between Romania and the group of countries from the former communist bloc that joined the EU earlier, in 2004. The aim of this comparison is to see if a common path of reforms is present in the two situations. In Figure 7 we represented the same Competitiveness Index for Romania on one hand and for Poland (PO), Hungary (HU) and Czech Republic (CR) on the other hand. For the sake of consistency in terms of comparison, we represented the index over the period 2006 – 2016 in case of Romania, respectively between 2003 and 2013 for the other three countries.

In this way, we analyse the CI evolution over the first decade of EU membership in both situations. We can observe that Romania, Czech Republic and Poland are very similar at the starting point; only Hungary entered the EU from a better position, but



after ten years all countries in the sample are very close with respect to the Competitiveness Index. Moreover, Romania, Poland, and Czech Republic follow an almost identical evolution. A decade of EU membership has therefore brought a strong convergence between those four countries.

**Figure 7:** The CI over the first decade of EU membership in selected countries



## Concluding Remarks

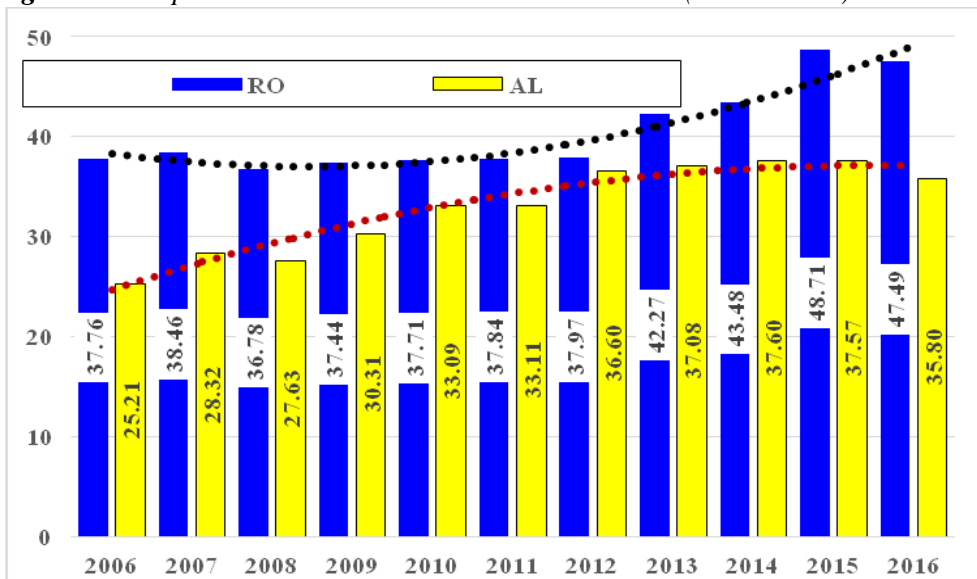
The EU membership is first of all an institutional status. A new member state has to comply primarily with a clear set of rules and obligations of legal and institutional nature at state level, aimed at building good governance principles in the country. This will translate into well-functioning public administration, where corruption is reduced considerably and the relations with the citizens are based on confidence and transparent practices. In turn, good governance induces a friendly and incentive-based environment in the economy, which will stimulate business development and wellbeing of individuals.

It follows that within the group of indicators used above to calculate the competitiveness index there is an order of importance. The essential element that ensures a successful path of reforms is the one related to state administration and institutions, expressed by the CPI in our analysis. Reducing and eliminating the corruption in public organisations will ease the relations between authorities and citizens (Paying Taxes indicator) and will induce fair competition in the economy – thus improving the business environment (BF indicator) and labour market environment (LF indicator). Not surprisingly, the most impressive progress of reforms in Romania, which boosted the Competitiveness Index, started in 2013; this coincides with the extensive anti-corruption operations of the specialised Romanian agency.

The EU membership is therefore a guarantee for remediating the legal and institutional de-functionalities, which will trigger the improvement of business and employment conditions in the economy. However, the euro-sceptical views on the role of EU integration argue that this sequential process of reforms can take place without being part of the European Union.

This opinion is contradicted by the comparison between an EU insider (Romania) and an outsider (Albania). In Figure 8 we represented the Competitiveness Index of the two countries. As an outsider, Albania has achieved some progress in the field, but this progress is not sustainable in long run. The initial convergent path between the two countries over the period 2006 – 2012 is reverted starting with 2013, when a divergent trend is observed. The highest CI recorded by Albania (37.6) is practically at the level of the lowest Romanian value. This is mainly because in 2016 the Corruption indicator of Albania corresponds to the Romanian CPI prior to 2008.

**Figure 8:** Competitiveness Index in Romania and Albania (2006 – 2016)



## References

- Allegret, J.P., Raymond, H. and Rharrabti, H. 2016. The Impact of the Eurozone Crisis on European Banks Stocks, Contagion or Interdependence. *European Research Studies Journal*, 19(1), 129-147.
- Avery, G., Faber, A., Schmidt, A. 2009. Enlarging the European Union: Effects on the new member states and the EU. *Trans European Policy Studies*, Brussels. Retrieved from [https://www.um.edu.mt/\\_\\_data/assets/pdf\\_file/0017/71054/Enlarging\\_the\\_European\\_Union.pdf](https://www.um.edu.mt/__data/assets/pdf_file/0017/71054/Enlarging_the_European_Union.pdf)

- Bchir, H., Fontagné, L., Zanghieri, P. 2003. The Impact of EU Enlargement on Member States: a CGE Approach. CEPII Working Paper No. 2003-10. Retrieved from [http://www.cepii.fr/PDF\\_PUB/wp/2003/wp2003-10.pdf](http://www.cepii.fr/PDF_PUB/wp/2003/wp2003-10.pdf)
- Boldeanu, T.F., Tache, I. 2016. The Financial System of the EU and the Capital Markets Union. *European Research Studies Journal*, 19(1), 60-70.
- Campos, N. F., Coricelli, F., Moretti, L. 2014. Economic Growth and Political Integration: Estimating the Benefits from Membership in the European Union Using the Synthetic Counterfactuals Method. IZA Discussion Paper No. 8162. Retrieved from <http://anon-ftp.iza.org/dp8162.pdf>
- Duguleana, L., Duguleana, C. 2016. Structural Aspects of the European Union Economy. *European Research Studies Journal*, 19(1), 93-128.
- European Commission. 2006. The Economics of Enlargement. Economic and Financial Affairs. Retrieved from [http://ec.europa.eu/economy\\_finance/international/enlargement/economics/index\\_en.htm](http://ec.europa.eu/economy_finance/international/enlargement/economics/index_en.htm)
- Efstathiou, N. 2011. The Impact of the European Union Enlargement on the Member Countries Economic Growth. An Econometric Analysis. Erasmus University.
- EURACTIV. 2010. Economic and Social Impact of Enlargement for the European Union and France. Retrieved from <http://www.euractiv.com/section/enlargement/opinion/economic-and-social-impact-of-enlargement-for-the-european-union-and-france/> Heritage Foundation (2016). Index of Economic Freedom. Retrieved from <http://www.heritage.org/index/>
- Grima, S., Romănova, I., Bezzina, F. and Dimech, C.F. 2016. Alternative Investment Fund Managers Directive and its Impact on Malta's Financial Service Industry. *International Journal of Economics and Business Administration*, 4(1), 70-85.
- Meunier, B., Zaman, C. 2016. A Proposed Index for Measuring the Implementation of Reforms. *Domestic Development Strategies Journal*, Vol. 3, Issue 185.
- Pociovalisteanu, M.D., Thalassinou, I.E., Tirca, A. and Filho, L.W. 2010. Trends and challenges in the energy sector of Romania in the post-accession to the European Union. *International Journal of Environmental Technology and Management*, 12(1), 3-15.
- Rupeika-Apoga, R. and Nedovis Uraev, R. 2015. The Foreign Exchange Exposure of Non-Financial Companies in Eurozone: Myth or Reality? *International Journal of Economics and Business Administration*, 3(1), 54-66.
- Sedelmaier, U. 2014. Europe after the Eastern Enlargement of the European Union: 2004-2014. Retrieved from <https://eu.boell.org/en/2014/06/10/europe-after-eastern-enlargement-european-union-2004-2014>
- Thalassinou, I.E. 2007. Trade Regionalization, Exchange Rate Policies and EU-US Economic Cooperation. *European Research Studies Journal*, 10(1-2), 111-118.
- Thalassinou, I.E. 2008. Trends and Developments in the European Financial Sector. *European Financial and Accounting Journal*, 3(3), 44-61.
- Thalassinou, I.E. and Pociovalisteanu, M.D. 2009. The Structural Funds and the Economic and Social Cohesion Process. *Annals-Economy Series* 1, 313-330.
- Thalassinou, I.E., Deceanu, L. and Pintea, M. 2010. New Dimensions of Country Risk in the Context of the Current Crisis: A Case Study for Romania and Greece. *European Research Studies Journal*, 13(3), 225-236.
- Thalassinou, I.E., Liapis, K. and Thalassinou, E.J. 2014. The role of the rating companies in the recent financial crisis in the Balkan and black sea area. Chapter book in *Economic Crisis in Europe and the Balkans*, 79-115, Contributions to Economics, Springer

International Publishing.

Thalassinos, I.E., Pintea, M., Rațiu, I.P. 2015a. The Recent Financial Crisis and Its Impact on the Performance Indicators of Selected Countries during the Crisis Period: A Reply.

International Journal of Economics and Business Administration, 3(1), 3-20.

Thalassinos, I.E., Stamatopoulos, D.T. and Thalassinos, E.P. 2015b. The European Sovereign Debt Crisis and the Role of Credit Swaps. Chapter book in The WSPC Handbook of Futures Markets (eds) W. T. Ziemba and A.G. Malliaris, in memory of Late Milton Miller (Nobel 1990) World Scientific Handbook in Financial Economic Series Vol. 5, Chapter 20, pp. 605-639.

Transparency International. 2015. Corruption Perception Index. Retrieved from <http://www.transparency.org/cpi2015>

United Nations. 2015. Human Development Report. Retrieved from <http://hdr.undp.org/en/2015-report>

Weise, C., Bachtler, J., Downes, R., McMaster, I., Toepel, K. 2001. The Impact of EU Enlargement on Cohesion. DIW & EPRC report. Retrieved from [http://ec.europa.eu/regional\\_policy/sources/docgener/studies/pdf/enlarge.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/enlarge.pdf)

World Bank. 2016. Doing Business. Measuring Business Regulations. Retrieved from <http://www.doingbusiness.org/>

**Annex 1: The Pentagon of Competitiveness in Romania (2007 – 2015)**

