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INSTITUTIONAL EFFICIENCY, ENTREPRENEURSHIP, AND THE PREMISES OF ECONOMIC DEVELOPMENT IN THE EASTERN EUROPEAN COUNTRIES

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Abstract
The development gap between the "Old" and "New" member countries of the European Union is an important problem challenging the efficiency and strength of the European single market. In this regard, a subsequent question arises: which actions in the policy making must be undertaken, by both national and supranational authorities, to stimulate cohesion in the EU and which directions should be followed? The present paper tries to answer this question considering the perspective of the Eastern European nations and their economic development premises analysing the aspects of governmental participation in the economy and the influence of entrepreneurship upon long run competitiveness. The research results explicitly underline that entrepreneurship in the Eastern European nations is a determinative driver of long-term economic competitiveness due to its favourable impact upon the formation of human capital, enhancement of innovation potential and overall intellectual resources of nations. The effects of governmental participation in the economy upon the economic growth premises are heterogeneous including on the formation of physical and intellectual capital. Consequently, it was reached the conclusion that the Eastern European Nations should prioritise entrepreneurship since it is capable of boosting human capital creation and, at the same time, they should improve the institutional quality to minimise the factors undermining the business including corruption and red-tape, etc. In such a way, the Eastern European countries can overcome, in the long run, the development gap with the Western EU states and raise their economic potential.

JEL classification: F15; O11; O25; O38; L26;

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1. Introduction

The European Union is the most important achievement of the European nations. Born in the difficult post war ages, the European Union proved to be a

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strong promoter of democracy, peace and progress on the world arena, the merit which was awarded the Nobel Prize for Peace in 2012. Moreover, the community has become a space of security, liberty and prosperity where rule of law, the pursuit of happiness, justice and equity are offered priority and are protected. Thus, it was not a surprise that in the post-soviet era, the former USSR satellites i.e. Estonia, Latvia, Lithuania, Poland, Hungary, Slovakia, the Czech Republic, Romania and Bulgaria have chosen to build a European future. These nations integrated into the European Union in 2004 and 2007. Presently, there are 15 and 12 years respectively since these countries are EU members.

Major successes and achievements have been reached since then, including in diminishing the development gaps between the Western and Eastern parts of the European Union. Nevertheless, these are not eradicated and seem to require a longer period of time, development differences being a serious threat to the unity and efficiency of the single market. These disparities create tensions among the European Union partners which menace the future existence of the community, Brexit and the raise of the European scepticism being two of the main consequences. In this regard, a subsequent question arises: which actions in the policy making must be undertaken, by both national and supranational authorities, to stimulate cohesion in the EU and which directions should be followed? According to Capello (2018), Védrine (2018), Scheurer and Haase (2018), Gänzle et al (2019) and Berkowitz et al (2019) the key towards diminishing the discrepancies among the EU states is, firstly, through reducing the development differences between the capital cities or major cities and the regions inside the EU's countries. At the same time, Balland et al (2018), Antunes and Loughlin (2018) and Gehring and Schneider (2018) underline the idea that regional progress can only be achieved through improving human capital, technology and access to financing for local entrepreneurs. Becker (2019), Medve-Bálint (2018) and Mikuš et al (2019) point that the support to local business sector through cohesion funding is one of the strategic directions which has been promoted by the EU, the situation contributing to stimulating growth. The majority of the authors, ideas expressed in the literature review section, tackle the aspect of cohesion from the policy making perspective of funding allocation touching supranational, national and regional levels. This paper comes to tackle the aspect of development discrepancies from the perspective of single-market organisation, different from the specific cohesion policy implications.

The present paper tries to analyse these aspects considering the perspective of the Eastern European nations and their economic development premises emphasizing the roles of governmental participation in the economy and the influence of entrepreneurship upon long run competitiveness. As a result, several objectives have been established including: first, assessing the degree to which the governmental participation in the economy is efficient enough to enhance the growth premises of the Eastern European Nations and, second, measure the capacity of local entrepreneurs to raise the level of economic competitiveness. It is necessary to underline that the present paper aims to achieve these objectives considering the nations' physical and human resources and their interaction as well as entrepreneurial and public sector efficiency. As a result, the article intends to answer whether the European Union can minimise or totally eradicate discrepancies by creating a more consistent business environment in terms of regulation and opportunities for all the member countries.

The research results explicitly underline that entrepreneurship in the Eastern European nations is a determinative driver of long-term economic competitiveness due to its favourable impact upon the formation of human capital, enhancement of innovation potential and overall intellectual resources of nations. The effects of governmental participation in the economy upon the economic growth premises are heterogeneous. This fact is conditioned by the differences in institutional efficiency, quality and accountability. Consequently, it was reached the conclusion that the Eastern European Nations should prioritise entrepreneurship since it is capable of boosting human capital creation and, at the same time, they must improve the institutional quality as to minimise the undermining business factors including corruption and red-tape, etc. Therefore, the Eastern European countries can overcome in the long run the development gap with the Western EU states and raise their economic potential.

2. Literature review

The researched matter is of strategic importance for the future development of the European Union in the conditions of growing internationalization and globalization. Therefore, there have been elaborated many articles covering various aspects of how institutional efficiency influences entrepreneurship and which are the driving forces of economic development considering the realities of the Eastern European Union nations. Thus, according to Persson and Sharp (2015) the economies of European countries are presently interconnected, the relationships evolving during the centuries. Despite of multiple wars between various European states, trade among nations was never stopped. However, the first and second World Wars were the most disastrous events undermining the prior economic supremacy of the European nations, while the communist threat put the ruling elites under enormous pressure. Thus, in the after-war period, European states found it necessary to build a common future to avoid wars and oppose the tyranny of communism. Thus, it was established the core of the European Union formed by Federal Germany, France, Italy, Belgium, Netherlands and Luxembourg. It was the first step towards consolidating Europe under mutually shared democratic values. European project was successful since it won in the Cold War and convinced other European nations about the benefits which can be shared if collaborating not competing. In 1992, the European Union was established in the form it is presently known and the European integration gained a continental character many countries setting as a key priority joining the community.

Dunning (2014) mentioned that globalization certainly is the process which raised the efficiency of global economy. It has changed the complexity of business which is presently dominated by technology, ingenuity and innovations. Multinational corporations are the main drivers of globalization which are strong enough to develop large scale strategies, to implement and exploit technological advancements to maximize the own benefit considering the interests of general public. At the same time, Ahlborn and Wortmann (2018) highlight the role of the interconnected business networks which have increased chances of surviving the competition. To efficiently integrate the businesses into clusters countries, it is needed policies motivating firms to consolidate their activities. Popkova and Tinyakova (2013) underlined that each of the European Union member state needs community's market since it reinforces countries' economic competitiveness. The European integration of the former communist nations strengthened both the Western developed nations as well as the newly integrated ones since it provided increased growth opportunities for the community as a whole.

Simultaneously, Comes et al (2018) point that absorption of FDI is a strategic task for less competitive countries, yet, this is only the first step, the second is the most important and namely, integration of local businesses within the operations of the larger foreign firm. In their turn, Pereira and Galego (2018) stressed the idea that the expansion of the EU towards East allowed the Western companies to benefit from various economic opportunities, including lower wages. This situation strengthened the competitiveness of the European business on the global arena. In this regard, Rusu and Dornean (2019) concluded that the European integration of Eastern economies might have reduced the short run competitiveness, yet long run positive effects come to comprehensively compensate. Accordingly, a consolidated Europe is much more efficient in facing global scale challenges due to larger opportunities provided by the single market.

Peet and Hartwick (2015) concluded that economic growth determines how the people live in terms of welfare, social conditions and income. It is the responsibility of governments to establish the development priorities which will mobilize the efforts of present generations to provide the future ones with better socio-economic environment. Hodson (2018) remarked that economic progress is linked to long run development strategies which are comprehensively establish on step-by-step action plans. Michálek and Výbošťok (2019) underlined that the Eastern European Union Nations have demonstrated that having a long run development plan is an imperative condition to provide the future generations with more favourable socio-economic environment. These plans tackle multiple dimensions starting from reduction of inequality and assuring better income distribution and finishing with fostering the entrepreneurial climate. Thus, these countries have successfully overcome transition, implementing reforms and integrating into the European Union in a relatively short period of time while most of the former Soviet Republics, excepting the Baltic ones, either failed economically or slipped into hybrid regimes due to the lack of long-term orientation (Peet and Hartwick, 2015). Liñán and Fernandez-Serrano (2014) come to add that economic development, income of a nation and the level of entrepreneurial activity is closely linked with the dominant culture within a society. This fact can be expressively observed within the European Union where important cultural differences among the Western, Northern, Southern and Eastern parts shape the socio-economic environment. In such a way, the main driver of economic growth- entrepreneurship varies from country to country the fact depending both on the legal framework and cultural values. Bolea et al (2018) as well as Capello and Perucca (2018) mentioned that despite of the heterogeneous cultural environment, the European demonstrated that it can establish a functioning single market. It is the responsibility of the national and supranational authorities to foster its efficiency through enhancing the integration and smoothing cross country economic environment. The social oriented market economy system which is predominant in the European Union, and despite decreasing the profit margins for businesses on overall, it is favourable for SMEs (Medve-Bálint, 2018). Yet, its success is spread unevenly due to the heterogeneity in terms of institutional efficiency (Fiaschi et al, 2018).

Jorgenson et al (2014) pointed that present economic development should be sustainable to permit the future generations to satisfy their needs. This fact requires minimization of dependence between the produced welfare and energy consumption. The Eastern European countries unlike the Western counterparts have not reached an advanced level of technological development to minimize the negative effects of excessive energy consumption and its direct connection with the produced welfare. Nevertheless, during the last decade important achievements were reported in several Eastern European nations the fact demonstrating the positive dynamics in the region.

Graeff and Svendsen (2013) and Degl'Innocenti et al (2018) underlined that there is a considerable economic development gap between the Northern, Western and Eastern European countries. One of the main causes why the last are underdeveloped regards the low level of social trust as well as relatively high levels of corruption. Entrepreneurs within an unsecure business environment tend to minimize their expenses to become less exposed to uncertainties, while in a stable and transparent environment they invest more to gain more return and therefore increasing overall societal wealth. Therefore, it is necessary to raise social awareness to protect businesses from excessive bureaucracy and corruption in order to determine higher economic activity. Cuaresma et al (2014) added that there are important differences between the level of development of the Western and Eastern European Union regions. There is a weak level of regional convergence due to the overall disparities in the countries' level of development.

Rollnik-Sadowska and Dąbrowska (2018) underlined the idea that it is necessary to reduce the level of disparities inside the European countries, first, as this will permit to mobilize more efficiently national resources and business efforts. Porte and Pavón-Guinea (2018) observed that growth tendency is more visible in the regions containing capital cities. Moreover, the positive dynamics are more evident if in the area are present more capital-intensive activities. Thus, it is imperative to connect regions to capitals, this task being strategic for future reduction of cross countries disparities. Telò (2014) emphasized that regional economic development is closely linked to the central government initiatives regarding business activity. Due to the advanced level of infrastructural development in the Western European countries, there is a low development gap among regions. In the Eastern European Union countries infrastructure is rather weak this fact causing ununiformed economic development this fact hampering the overall countries' economic performance. Thus, an essential condition to accelerate growth and minimize development gap between the Western and Eastern European countries is to provide the last with performant infrastructure connecting regions.

Oesch (2013) stressed that the level of technological development is crucial in determining increased efficiency of entrepreneurial activities. Moreover, education plays a catalyzing role establishing future priorities of business' activities. These elements of socio-economic environment o are key factors establishing country's present and future competitiveness and economic structure. The Western European Union countries succeeded in gaining competitive economic advantages due to their high performance in terms of technology and education which allows these countries to maintain their economic superiority over longer periods of time. The main competitive weakness of the Eastern European nations is the lack of effective technological driven business and proper education system to provide the future generations with the necessary skills and abilities. At the same time Tabellini (2010) considered that cultural factors are among the most important drivers of economic development since the predominant values within a society can stimulate or not entrepreneurship. Culture is assessed through the intermediation of individual values and beliefs such as trust, respect and confidence. These values determine the efficiency of institutions and their accountability. It is necessary to underline that social environment and culture develop during longer periods of time and tend to remain inflexible when considering reforms and changes. Nevertheless, if there is enough political willingness than implementation of reforms tends to be more efficient and dominant values within a culture are changed towards adopting new ones.

Aslund (2013) pointed that the consolidation of institutions and democracy in the Eastern Europe after the fall of the communist was much more successful in several countries than in others. The differences among the countries occurred as a result of policies promoted which in some nations were vague and not functional. Moreover, there was important discrepancy in leadership which failed to promote strong step-by-step reforms-oriented programmes. Thus, only 9 countries have successfully overpassed the transition period and integrated into the European Union. Central states adopted free markets based on social welfare mechanisms setting up high taxes, regulation and social transfers which reduced their economic flexibility and development. At the same time, the Baltic States succeeded to progress by much less accentuating the principles of social welfare stressing the importance of liberalistic ones the fact allowing them to record higher economic growth. The South-eastern countries straddled to combine both, welfare and liberalistic models. Quatraro and Vivarelli (2014) underlined that institutional framework is crucial to determine productive entrepreneurial activity capable of realizing the socio-economic development goals. In general, institutional efficiency is one of the most important macroeconomic indicators motivating the country to either succeed or not in terms of internal and external investments' attraction which is the driving force of growth. Moreover, institutions and operating framework determine the willingness of entrepreneurs to undertake risky projects, to entry new markets or start up new businesses. Thus, if there is an interest to develop entrepreneurship, policy measures should be directed towards the minimization of entry barriers and reduction the cost of failure. Moreover, Rodríguez-Pose and Di Cataldo (2014) highlighted that institutions are determinative in assuring proper framework for innovation development. Government through the provision of relevant regulation can enforce country's capacities in creating, implementing and benefiting from innovation. In this case, the quality of government in terms of corruption eradication, rule of law, governmental effectiveness and accountability is crucial. Thus, there is a strong link between the efficiency of institutions and the competitiveness of countries in terms of innovation. The peripheries of the European Union are most vulnerable in the front of corruption the fact which should motivate the European level authorities to undertake proper measures to combat red tape and inefficient bureaucracy. Furthermore, Salahodjaev (2015) accented that economic performance is determined by the strength of institutional arrangements which either enforce democracy, social capital accumulation and intellectual development or not. Democracy not always leads to higher economic performance while social intelligence does since it stimulated innovation and higher productivity, nevertheless, it is essential in creating favourable environment for the entrepreneurial progress and long run stability. According to Ignatov (2019), quality of institutions and efficiency of market mechanisms is a matter of strategic economic security since it determines the capacities of nations to face future challenges. Thus, governments seeking to increase their economic growth should provide favourable policies to consolidate institutional framework which is decisive in assuring both auspicious business and social environments.

Dijkstra et al (2013) mentioned that in the past there was an evident tendency that largest cities tend to progress more rapidly than the other regions due to the extensive availability of capital and human resources and relatively intensive use of them. Nevertheless, in the developed countries of the European Union this trend has slowed down and even reversed during the last decade. This fact comes to contrast with what the principles of global cities, urban economics and new economic geography literature say. The factors which motivate such an evolution are determined by inefficiencies of the permanently growing cities. Moreover, the relatively advanced level of development of regional infrastructure creates favourable preconditions for growth of smaller centres. Camagni and Capello (2013) concluded that regional economic competitiveness is dependent from the existing territorial capital. The differences in capital create alternating growth patterns which depend on multiple factors which characterise the quality and efficiency of the assets. Besides physical and intangible capital exiting in a region, the human one is also crucial to motivate economic progress since it provides future development perspectives and raise of economic competitiveness. Considering the depth, quality and extension of national assets, proper development strategies should be undertaken by countries to maximise the use of the production possibilities frontiers and extend them.

Ignatov (2017) pointed that the main advantage of the European Union relies in its flexible system permitting the promotion of individual economic policies which can offer proper solutions to the present and future challenges a country may face. Estonia, one of the former soviet countries, succeeded in developing and implementing efficient liberalistic policies which in some aspects are in contrast with the social driven ones of the European Union. Thus, this small former communist nation gained significant economic empowerment by fully exploiting the benefits of liberalism consolidating its entrepreneurial environment. Thus, countries are free to choose their own development pathways, including in such areas as FDI attraction. Forte and Moura (2013) mentioned that FDI is an important input determining host countries' economic growth. The degree to which an economy is capable to attract investments and benefit from depends on a variety of internal factors including infrastructure, human capital, technological preparedness and level of economic openness, etc. Government is the key economic player capable of balancing all conditions to create favourable climate for investments' projects implementation by leveraging risks and opportunities. In such a way, properly developed and applied policies can enforce country's economic potential assuring suitable environment for socio-economic progress. Tintin (2013) considered also that FDI is one of the most important factors driving economic growth in the Eastern European Union countries. Nevertheless, not all states benefited in equal measure from the investment flows, some nations being more efficient attracting and retaining investments than others. The factors which determined FDI performance summarise to the following institutional transparency, GDP size, economic freedom and strength of democratic values. In such a way, it can be concluded that internal economic conditions are decisive in motivating higher FDI efficiency. At the same time, Voigt et al (2014) underlined that technological development of a nation is a determinant factor motivating productivity of its economic activities. Moreover, in the present conditions when sustainability of human activities has become of increased concern, innovation is widely applied to minimise the dependency of produced welfare from energy intensity and switch it to more technology intensity. Growth of regional competitiveness in terms of technological readiness is crucial in providing smooth and balanced overall growth. In such a way, it is necessary to minimise the development heterogeneity, an essential condition for future growth. While Weber et al (2016) accentuated the infrastructure is a driving factor of economic development and cohesion among countries as well as regions. It represents the most important asset of a country which determines its growth perspectives. Unless the government succeeds in assuring a proper infrastructure to the business sector the economic growth remains weak and feeble. In such conditions, one of the tasks of developing economies is to develop efficient infrastructure networks capable of satisfying long run economic needs. Szabo et al (2013) remarked that efficient and flexible enterprises are the main driving force of dynamic economic growth. Thus, they should be supported by the government with the provision of effective infrastructure, simple procedures and transparent bureaucracy. However, these conditions often require political willingness and most of the time reforms which in the short run could not be very popular yet necessary to establish future growth perspectives.

By examining this literature, it has been reached the conclusion that economic growth including in the Eastern European Union countries is determined by institutional strength, availability of proper infrastructure, cultural factors, degree of technological and innovation development as well as governmental initiatives stimulating entrepreneurship and business activity. Consequently, the present research paper aims to assess the degree to which each of these factors influenced the economic development of the Eastern European Union states.

3. Methodology

The present research applies quantitative analysis in order to evaluate the influence of governmental control over economic activities and of entrepreneurial competitiveness upon the premises of economic development in the Eastern European Union nations. Consequently, it is assessed the total general government revenue percentage of GDP which is an indication of the weight of the public sector in the total economy. It is a quantitative measure of the operational cost of governance determined by the past and present political decisions. The main components of gross governmental revenue include the direct taxes levied on income and wealth as well as the indirect ones including production, import taxes and taxes on capital growth, social contributions and other sources. The entire collected revenue makes the government to meet its commitments in terms of education, healthcare, provision of infrastructure, etc. Second indicator analysed is per capita Business enterprise sector R&D expenditure. It reflects the degree of competitiveness of the business environment in a country. Hence, if entrepreneurship is strong, it is innovation driven, business being capable of spending more on research and development activities. Namely innovation achieved through R&D

determines the degree of business complexity which provides either more or less value added to a society. As a result, governmental revenue and business competitiveness are the two main components of a society driving economic activity.

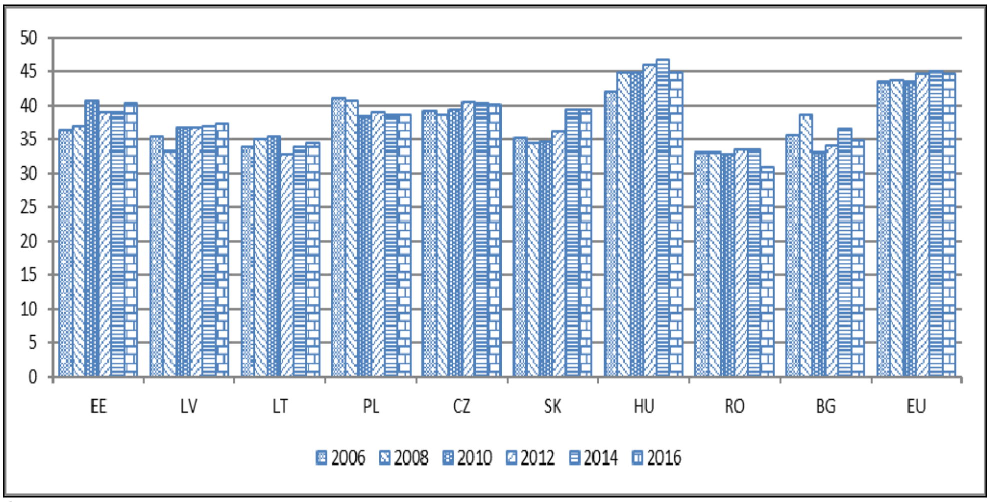
The next step in the research is made by analysing the principal prerequisites of economic development and their evolution in time. The first premise is the gross capital formation within an economy. This indicator reflects the formation of new fixed assets by government, business and households. Moreover, capital formation shows how much of the value added within an economy is invested rather than consumed. Therefore, the higher is the level of this indicator higher is the probability of an economy to expand, it assuring the fundamental material endowment (Boamah et al, 2018, Afonso and Aubyn, 2019, and Ruiz, 2018). The next economic growth premise is represented by the net inflows of FDI. Foreign direct investments are one of the main drivers of economic development in the modern economy since it motivates employment and growth of production. It is a key component of globalisation and economic integration being one of the elements of international economic flows, alongside with labour, trade, finance. FDI motivates both short and long run economic progress by stimulating higher employment, technology and knowledge transfer and industrial growth (Comes et al, 2018, Fagerberg et al, 2018). The third premise is the employment in knowledge intensive business activities. If this sector increases in relation to the total economy, then the economy is producing more intensive value-added products since the accent is put on quality. Namely, knowledge-oriented business is capable of offering most feasible solutions to modern and future challenges. This indicator is reflecting human capital which is determinative in creating and exchanging new economic value. Enhancing the quality of a nation's intellectual resources requires much time and investments, therefore, these assets are crucial in raising competitive economic edges (Boamah et al, 2018, Afonso and Aubyn, 2019 and Ruiz, 2018). Final premise of economic growth is the evolution of trademarks' publication. This indicator is closely linked with the previous one representing one of its outputs. Trademarks are the core of a developed economy being a key component of its advanced business activities. If this indicator improves in dynamics the economic and competitive potential of a nation is also growing as a result of the fact that it is capable of creating, promoting and benefiting from intellectually protected products and services (Thompson, 2018, Visvizi et al, 2018, Pradhan et al, 2018). Finally, it is calculated the correlation between the participation of government within economic processes, entrepreneurship and the premises of economic development to identify which is the degree of interdependence among these indicators.

4. Results

a. Share of government in the economies of the Eastern European Nations

In order to assess the influence of institutional efficiency upon the economic development of the Eastern European Union countries it is necessary to evaluate the weight of governments within economies (figure 1). As it can be observed, the overall bureaucratic control over the economy in the European Union has ranged during 2006-2016 within 43% and 45%. At the same time, the vast majority of the analysed states have lower level of governments' participation within economies. Romania and Lithuania in 2016 registered the lowest weights of government participation in GDP, 31% and 34.5% respectively. These states are followed by Latvia and Bulgaria, 37.4% and 34.9%. Slovakia, Czech Republic, Estonia and Poland record 39.3%, 40.1%, 40.3% and 38.7%. Hungary is the only country from the selected ones registering above the European average levels of government implication in the economy, nevertheless, in 2016 it tends to match it. As a result, it can be underlined that the weakest economies from this group and namely Bulgaria, Romania and Latvia have lower direct governmental control over economic processed the fact meaning lower taxes intended to reignite economic activity.

Figure 1. Total general government revenue % of GDP in the European Union New Member States.



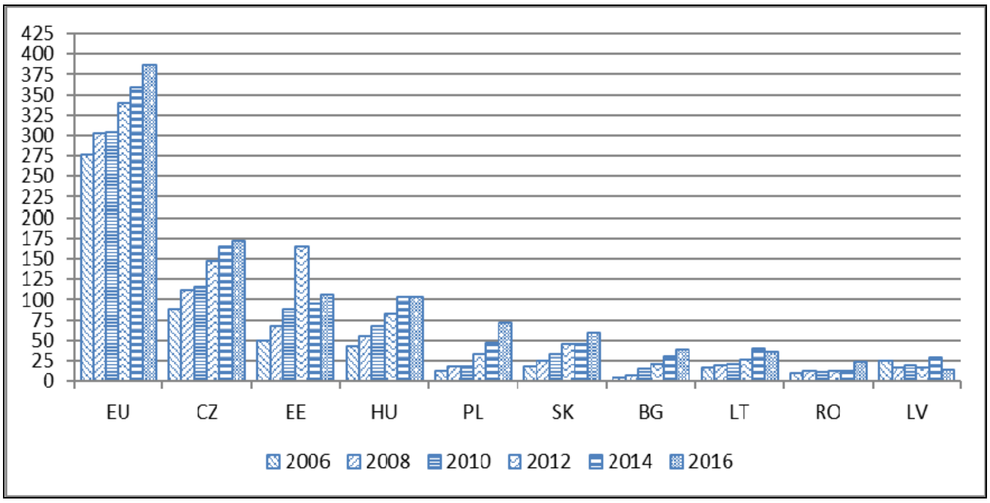
Source: Eurostat, indicator's code [tec00021]

b. Entrepreneurial competitiveness in the Eastern European Nations

Entrepreneurship is one of the main drivers of economic development (Schumpeter 1934, Wennekers et al 2005, Acs et al 2008). The stronger is the business sector of a country more viable is the economy. One of the indicators through which it can be assessed the level of competitiveness of entrepreneurship within an economy is the per capita business R&D expenditure. As it can be observed in the figure 3, there are considerable disparities between the levels of business development in the Eastern and Western European Union. Thus, none of the states even close comes to the European Union's average in terms of per capita business sector R&D spending. Accordingly, by 2016 the EU reached 381 EUR while the highest value in its Eastern part was 171 EUR, and namely in the Czech Republic. It is important to mention that there can be explicitly pointed that even among these countries it can be distinguished between leaders and followers. Thus, the states having most robust business sector are the Czech Republic, Estonia and Hungary which achieve levels of per capita expenditure of more than

100 EUR, followed by Poland and Slovakia, scoring between 70 and respectively 60 EUR. The rest of the countries are least competitive in terms of entrepreneurial activity and strength of business hitting less than 50 EUR and in specific cases less than 25 EUR. Positive and stable dynamics in terms of entrepreneurship can be observed in Czech Republic, Poland, Slovak Republic and Bulgaria where it can be assessed gradual growth of the business performance. It is necessary to remind that per capita business R&D expenditure is an indicator applied to identify business competitiveness due to the fact that the stronger is this sector then more investments it will provide to innovation related activities which in turn motivates higher economic efficiency.

Figure 2. Per capita Business enterprise sector R&D expenditure, EUR

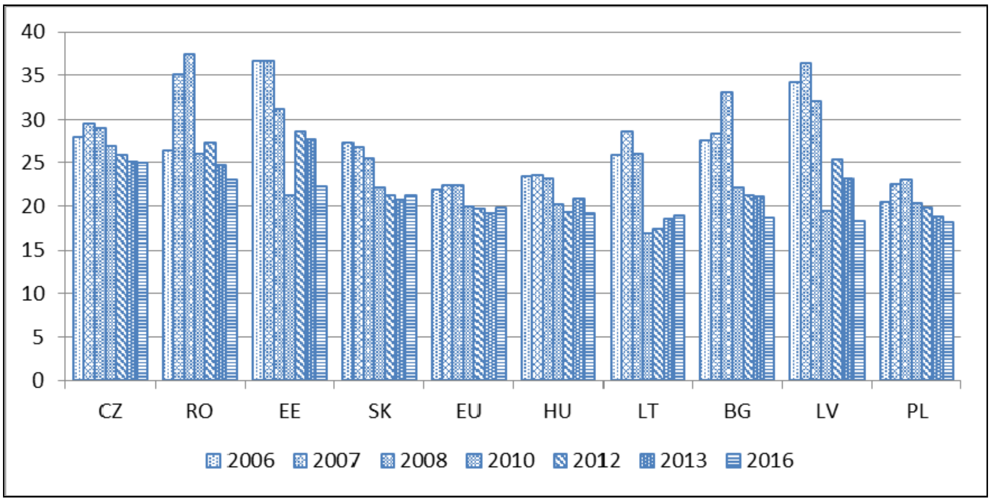


Source: Eurostat, indicator's code [rd_e_gerdtot]

c. Fixed capital formation: premise number 1 of economic growth

By analysing gross fixed capital formation (figure 2) it can be assessed long run perspectives of countries to support economic growth. Thus, it can be observed that during the period of 2006-2016 capital formation in the European Union has gradually decreased and never reached the pre-crisis levels from 22.4% (maximum value reached in 2007 and 2008) to 19.8% in 2016. In the analysed countries the drop in the capital formation is steeper falling closer to the European Union average. Consequently, in the pre-crisis period the maximum heights were reached by Romania, 37.4%, 2008, Latvia, 36.4%, 2007, Estonia, 36.6%, 2007, and Bulgaria, 33%, 2008, while in 2016 these levels being 23%, 18.2%, 22.3%, and 18.6% respectively. In Lithuania the decline was also abrupt, from 28.6% in 2008 to 18.9% in 2016. Hungary, Poland, Slovakia and Czech Republic have registered also negative dynamics, yet, the long run perspective is more stable. The evolution of the gross fixed capital formation expresses the idea that the fundament for economic development in some Eastern European Union countries (second range) was more balanced while in other states (first range), this fact being crucial in determining the further growth in the economic competitiveness.

Figure 3. Gross fixed capital formation percentage of gross domestic product

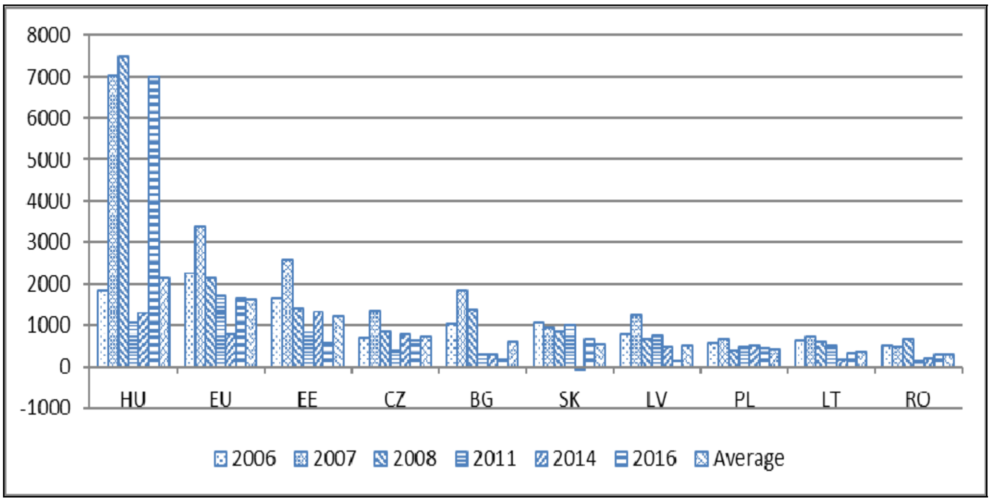


Source: Eurostat, indicator's code [nama_10_an6]

d. FDI performance: premise number 2 of economic growth

Foreign direct investments are a major source assuring more favourable economic growth perspectives for an economy, especially when it creates economic clusters with the local firms. Therefore, governments all around the world are interested in attracting FDI since it improves economic potential. Eastern European Union countries are not an exception. In the figure 4 it has been calculated the per capita FDI performance the fact permitting to make abstraction from the absolute size of an economy and therefore obtain more relevant observations. Hungary, despite of having alternating success in attracting FDI, is by far the country which managed to attract highest per capita FDI. Thus, during the period of 2006-2016, this country managed to report three years of per capita net inflows exceeding 7000 US$. In other 4 years, Hungary's performance ranged between 1070 and 1850 US$. Nevertheless, such evolution determined 4 years of net investments outflows which, however, are much lesser. The other states have higher FDI performance in the pre-crisis years, including the European Union, and more modest results in the years following. After Hungary, Estonia and Czech Republic point relatively high levels of per capita FDI during the whole period which in 2016 reached 563 and respectively 615 EUR, while the average European level was 1632 EUR. The observation made are justified if examining the average FDI performance by country during the period of 2006-2016, then it can be mentioned that Hungary leads with 2133 US$, followed by EU, 1606 US$, Estonia, 1200 US$, Czech Republic, 718 US$, Bulgaria, 605 US$, Slovakia, 538 US$, Latvia, 511 US$, Poland, 410 US$, Lithuania, 364 US$, and Romania, 291 US$.

Figure 4. Per capita foreign direct investment, net inflows (BoP, current US$)

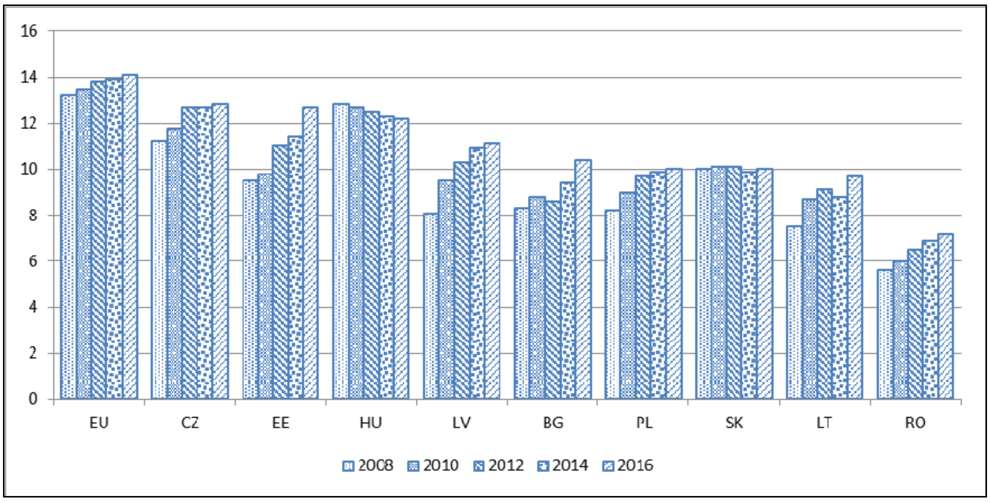


Source: World Bank

e. Employment in knowledge intensive business activities: premise number 3 of economic growth

An important indicator on the base of which it can be analysed the future competitive potential of an economy is represented by the employment in knowledge intensive business activities % of the total employment. This indicator marks the evolution and the actual status-quo of the degree of complexity of an economy which should be considered to effectively appraise the future growth perspectives in the area of innovative entrepreneurship, in particular, and in general, in the field of innovative economic capacities. In other words, the higher is the share of people employed in knowledge intensive business activities, the more innovative potential a country is in favour of. As it can be observed in the figure 5, none of the researched states reaches the level of European Union's average which in 2016 was more than 14.1%. Among the analysed countries, the highest values of this indicator in 2016 were reached by Czech Republic, 12.8%, Estonia, 12.7%, and Hungary, 12.2%. Romania is the only country which registered values lower than 7.5%. If analysing in dynamics the indicator, then it can be underlined that Estonia enlarged the share with 3.2%, Latvia, 3%, Lithuania, 2.2%, Bulgaria, 2.1%, Poland, 1.8%, Czech Republic and Romania, 1.6%, while the EU growth in this share was 0.9%. Slovak Republic has recorded no change of this indicator. At the same time, Hungary faced decrease in terms of knowledge intensive business activities, -0.6%. Addressing this issue, it is necessary to remark that Romania, registering lowest value, Hungary and Slovakia, facing long run stagnation, as well as the European Union, need to develop policies to stimulate high intellectual intensive business activities to increase the employment of population in these areas. This fact will motivate the overall growth in terms of economic competitiveness and entrepreneurial complexity capable of producing more wealth and value-added maximising efficiency.

Figure 5. Employment in knowledge-intensive activities - business industries % of total employment



Source: Eurostat, indicator's code [htec_kia_emp2]

f. The evolution of trademarks' publication: premise number 4 of economic growth

An important indicator showing the degree of maturity of the business environment within an economy is the number of new registered trademarks. This indicator shows the number of businesses which sufficiently developed as to apply for intellectual rights protection, thus, these businesses provide a product or service which presents a certain degree of novelty, innovation or uniqueness. In other words, trademarks compose the core of an advanced economy capable of offering specific and recognised products. In the table 1, there is presented information regarding the number of people in a certain country per one trademark publication. In such a way, it can be generally assessed how much population it is needed to establish a trademark. Ideally, the lower the number is more advanced and competitive the business is. As it can be observed in the table 1 the dynamics are positive in all of researched countries as well as in the European Union. Despite of positive evolution only Estonia managed to overcome the European Union's average. Other states which register relatively high positions are the Czech Republic, Lithuania, Poland and Bulgaria. Finally, there come Latvia, Slovakia, Hungary and Romania. Consequently, by analysing the evolution of the number of people per one trademark publication in these countries on average it takes 80% less population, while in the European Union only 31%. Leading nations are Estonia, 90%, Bulgaria, 88%, Lithuania, 87%, Romania, 83%, Slovakia, 82%, Poland, 78%, Latvia, 73%, Czech Republic, 72%, and Hungary, 67%.

Table 1. Number of people per one trademark publication

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EE	46442	12188	12155	17331	8374	7949	6853	5315	4998	4163	4668
EU	10654	8653	7366	8746	7130	7259	7334	6855	6650	6191	7299
CZ	43944	21912	19856	28151	16392	15976	13580	14286	12712	12349	12238
LT	105481	43666	37626	24905	27169	24821	17784	14084	13513	10759	13422
PL	65874	38121	20687	30967	20732	23153	20608	18457	15290	12885	14720
BG	126684	87736	24406	32508	21945	21116	20016	18439	12412	12933	15735
LV	63382	56419	30241	47593	20564	19997	23933	16363	13943	13272	17047
SK	103328	49308	43034	48526	23441	28413	21374	22841	18815	16792	18591
HU	73514	42609	40314	42112	31546	30035	34446	26738	20772	19647	24242
RO	235486	123568	61861	96073	51650	49140	50909	55820	41914	36094	39176

Source: Eurostat, indicator's code [ipr_tp_tot]

g. Governmental revenue, entrepreneurship and growth premises: how much do they correlate?

It has been calculated several correlation coefficients in order to assess if institutions and business competitiveness directly interact. As it can be observed in the table 2, there is relatively strong positive interdependence between total general government revenue and gross fixed capital formation only in Poland, Romania and Bulgaria while in other countries there is strong negative correlation, Estonia, Latvia, Czech Republic, Slovakia, or weak one Lithuania and Hungary. It can be observed that at the level of European Union government control over the economy is negatively correlated with fixed capital accumulation. At the same time, there is strong interdependence at the general level of the EU between government revenue and business R&D expenditure, as well as in Czech Republic, Slovakia and Hungary. Six countries out of 9 examined register either no correlation or weak ones of any sign. Also, there is negative correlation or weak one between governmental control over the economy and FDI performance except Poland and Bulgaria. Moreover, it also passively interacts with the employment in knowledge-intensive industries. However, it is registered strong positive correlation at the community's level as well as in Latvia and the Czech Republic. More active interdependence can be assessed between government revenue and trademark publications dynamics, strong positive correlation being recorded for Latvia, the Czech Republic, Slovakia, Hungary and European Union in general. Simultaneously, the level of entrepreneurial competitiveness within an economy reflected through the per capita business research and development expenditure has weak or strong negative correlation considering capital formation as well as FDI performance. This fact demonstrates that more dynamic business within an economy does not necessarily leads to growth in fixed capital formation as well as in higher levels of FDI. Nevertheless, more competitive entrepreneurship is strongly correlated with the employment in knowledge-intensive activities as well as with trademarks' performance both at the level of the European Union as well as at the level of national states, with some minor exceptions.

Table 2. Summary of correlations

Correlation index between	AandB	AandC	AandD	AandE	AandF	CandB	CandD	CandE	CandF
EE	-0,82	0,06	-0,29	0,04	0,21	-0,33	-0,41	0,26	0,47
LV	-0,81	0,16	-0,54	0,87	0,76	0,2	0,31	0,31	0,19
LT	0,09	-0,31	-0,09	-0,47	-0,22	-0,42	-0,35	0,72	0,9
PL	0,57	-0,45	0,49	-0,45	-0,54	-0,75	-0,25	0,84	0,85
CZ	-0,65	0,79	-0,31	0,89	0,74	-0,82	-0,42	0,89	0,96
SK	-0,45	0,77	-0,56	-0,68	0,78	-0,75	-0,58	-0,53	0,91
HU	-0,13	0,75	-0,31	-0,6	0,76	-0,54	-0,25	-0,51	0,94
RO	0,42	-0,24	0,1	0,13	-0,03	-0,23	-0,05	0,62	0,54
BG	0,44	0,1	0,57	0,28	0,01	-0,77	-0,63	0,94	0,87
EU	-0,71	0,82	-0,4	0,78	0,67	-0,73	-0,45	0,94	0,81
A	Total general government revenue % of GDP								
B	Gross fixed capital formation percentage of gross domestic product								
C	Per capita Business enterprise sector R&D expenditure								
D	Per capita foreign direct investment, net inflows								
E	Employment in knowledge-intensive activities - business industries % of total employment								
F	European Union trade mark (EUTM) publications								

Source: Own calculations.

5. Conclusions

The researchers have analysed cohesion and economic growth in the European Union considering different perspectives, for instance Ahlborn and Wortmann (2018) highlighted the role of the interconnected business networks, Comes et al (2018) pointed that efficient absorption of FDI is strategic, Hodson (2018) remarked that economic progress is linked to long run development strategies, Telò (2014) emphasized that regional economic development is closely linked to the central government initiatives, Oesch (2013) stressed that the level of technological development is determinative while Aslund (2013) pointed that the consolidation of institutions and democracy is important. In its turn, the present research concludes that single market is the main driver of economic development of the European countries, yet, not all member states are able to fully exploit the business opportunities due to lower quality of institutions and efficiency of market mechanisms leading to weaker entrepreneurial environment and business activity. Despite the fact that the level of fiscal pressure over the economic processes in the majority of the Eastern European Union countries is lower than the EU's average, weaker institutional performance erases this potential advantage for entrepreneurs. This determined the varying performance of countries in terms of economic development perspectives.

Business competitiveness does not necessarily affect the countries' achievements in terms of FDI and gross fixed capital formation. These indicators stimulate economic development, yet do not raise internal countries' innovation or entrepreneurial competitiveness. Also, it can be observed that the states from the Eastern European Union behave differently when examining the impact of the public sector upon the premises of long-term economic development, yet they almost match when into account is taken the influence of entrepreneurship upon the innovation capacities. Considering the previous remarks and the research results, the paper identifies entrepreneurship as strategic development determinants which should be reinforced in the Eastern European nations through the promotion of business-oriented policies. Namely entrepreneurship is capable of mobilising internal economic development providing growth edges exceeding those assured by FDI attraction and investments in the fixed capital. Hence, the article advises policy makers from the Eastern European nations to undertake further efforts to boost entrepreneurial capacities of their nations making possible to overcome the existing development gap between the Western and Eastern EU. In this regard, it should not be expected that entrepreneurial activity will bring quick impact, yet in the long run entrepreneurship is efficient enough to raise overall economic performance.

The present research has confronted with several limitations. First limitation is linked to the difficulty met when quantitatively assessing the countries' institutional performance, and which is the development cost of weak institutions. Moreover, it was not examined the influence of corruption, shadow economy and red tape upon the economic growth premises. In other words, it remains unclear how much of the public sector's revenue in the Eastern European Union nations is wasted, missed or swiped out. Furthermore, a limiting factor is the presence of ununiformed environment the fact characterised by high heterogeneity.

Further research on this matter can be undertaken by considering the entire European Union. Also, there can be covered the aspects regarding the institutional quality and its influence upon the distribution of public resources. Moreover, entrepreneurship and public sector interaction can be research in more details reaching relevant conclusions and know which key aspects of bureaucracy should be attentively monitored to increase its accountability and economic efficiency. Furthermore, it can be assessed the impact of cross-cultural characteristics upon the evolution of economic competitiveness.

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