Business Environment and Economic Growth in the European Union Countries: What Can Be Explained for the Convergence?

Agnieszka Głodowska

A B S T R A C T
Objective: The objective of this article is to present the results of research on the economic growth and business environment of the European Union countries in the context of convergence processes. Additionally, the article presents the results of investigation on the impact of business environment on economic growth.
Research Design & Methods: Methods applied in the study are analysis and synthesis of the literature on the subject, as well as quantitative tools: descriptive statistics and multivariate regression. The analysis includes 28 countries of the European Union in the years 2000-2016 for economic growth and 2010-2018 for business environment.
Findings: Changes in the business environment across the European Union, as well as upward trends indicate a gradual approach of member economies in these areas. A quantitative analysis of the dependence of growth on business environment has also been confirmed.
Implications & Recommendations: The results can be important for policy makers. Demonstrating a positive link between business environment and economic growth should be viewed as a guideline for reforms, changes and regulatory improvements. This elaboration can be treated as a preliminary study on interrelation between business environment and economic growth in the context of economic convergence. Further research on the influence of business environment on economic convergence within the European Union countries is highly recommended.
Contribution & Value Added: The originality of this work lies in the connection of two different research problems: economic growth and business environment, as well as the study of links between these two areas.

INTRODUCTION

The analysis of development trends and changes taking place in the business environment are two very important research topics. Searching for the sources of growth is a very common problem in literature. Similar observations are made regarding the business environment and its analysis in the context of firms' operation. The combination of these two areas in search for mutual dependence and causality is no longer so deeply recognised.

Therefore, this article aims to present the results of research on the economic growth and business environment of the European Union countries in the context of convergence processes. In the first place, this refers to the convergence of income, understood as the equalisation of GDP per capita of the European Union countries over time and then to the convergence of the business environment of these economies. As variables which describe the business environment, the Easy of Doing Business Index developed by the World Bank was chosen. Additionally, the article presents the results of investigation of the impact of business environment on economic growth in the European Union countries.

Methods applied in the study are analysis and synthesis of the literature on the subject, as well as quantitative tools. To verify the diversification of economic growth and business environment descriptive statistics and the coefficient of dispersion are used. To indicate relations between business environment and economic growth multivariate regression and backward stepwise regression are applied.

This article is divided into substantive parts. The first part contains an overview of previous studies regarding the issue being explored: economic convergence, business environment and interrelations between these two problems. Section two introduces the study methods and their assumptions. The third part presents the results of own investigation and discussion. The article ends with main conclusions as well as limitations of the work and recommendations for future research.

LITERATURE REVIEW

Trend analysis and the search for the sources of economic growth are particularly important for integrated economies. Integration implies the idea of convergent growth. It is understood as a process of similarity and convergence of economies in terms of economy and income (Próchniak & Witkowski, 2016). Convergence analysis may be limited to observing macroeconomic indicators. Particularly popular is the analysis of the nominal convergence referring to the so-called Maastricht criteria, which determine the country's membership in the Economic and Monetary Union. However, the analysis of economic convergence is, in most cases, reduced to examining the level and rate of economic growth expressed in GDP per capita.

The convergence process in the European Union understood in such a way is a matter of great concern. This is a topic in itself recognised in the literature of the subject. It is difficult, however, to find an unequivocal position on the process of economic convergence in the EU area. In the works of Mello and Perrelli (2003), Alexe (2012), Cuestas, Monfort and Ordones (2012), the lack of economic convergence of the EU member states is shown. However, the vast majority of studies confirm the development of EU economies in line with the economic convergence hypothesis (Verblane & Vahter, 2005; European

Commission, 2010, 2014; Rapacki & Próchniak, 2014; Matkowski & Próchniak, 2014; Głodowska, 2017; Deichmann, Eshghi, Haughton, & Li, 2017). There is also evidence of the existence of club convergence, i.e. economic convergence within a selected groups of states (Antonakakis, Christou, Cunado, & Gupta, 2017; Furková & Chocholatá, 2016).

The presented studies on economic convergence in the European Union have a lot of limitations. It is worth noting that in a number of studies out of a larger group of countries primarily the EU15 countries are surveyed, which does not enable the possibility of observing economic cohesion within the EU member states themselves (Islam, 2003; Smolny, 2000; Barro, Sala-i-Martin, 2003; De la Fuente, 2003; Milanovic, 2003). This approach has emerged in the literature of the subject, with the deepening of the European integration and the accession of new countries. Interest in the convergence of the EU states has increased in the context of analysing the impact of the economic integration on the economic convergence of states (Gianetti, 2002; Verblane & Vahter, 2005; Matkowski & Próchnik, 2006; Recher & Kurnoga, 2017). According to Alexe (2012), not all countries which have acceded to the European Union after 2004 are approaching the Western Europe countries in terms of GDP per capita growth. Cuestas, Monfort and Ordones (2012) indicate the existence of club convergence. Stanišić (2012) confirms the existence of convergence in the 25 EU Member States without Romania and Bulgaria, while in the group of old EU15 and newly accepted EU10 Member States, treating both groups separately, rather divergent tendencies are observed. Maciejewski (2017) indicates to a higher growth rate in poorer countries but does not confirm permanent tendency in the EU countries to become similar. The authors Rapacki and Próchniak (2009, 2014), and Matkowski and Próchniak (2009, 2014) have a wealth of achievements in the area of the convergence of Central and Eastern European countries. These authors largely confirm the occurrence of the convergence of Central and Eastern European countries in relation to the Western Europe.

The studies conducted so far on the income convergence of the European Union countries do not provide clear conclusions. This may be due to differences in the applied research methodology, the accepted research period or the number of countries covered by the analysis. Most of the works is of selective character. In view of the existing shortcomings of the research so far, an attempt has been made to analyse the economic growth of the EU countries expressed in GDP per capita, while making the following hypothesis:

H1: The area of the European Union is becoming more homogeneous in terms of business conditions and at the same time recognises constant improvement of the business environment properties.

The advantage of own studies is the inclusion of all the member states in the analysis, as well as the adoption of a relatively long research period. In addition, it should be remembered that the analysis of income convergence is only part of the presented research. Addressing the problem in relation to the business environment in the EU countries, as well as examining the impact of the environment on economic growth is the added value of convergence research.

Business environment convergence results from the assumptions of the European Single Market. The creation of a common market is intended to stimulate growth and job creation and make Europe a more competitive and attractive place for investment and innovation (European Commission, 2016). The business environment as a subject of scientific research is recognised in the literature of the subject, but above all in relation to its influence on the functioning of companies (Dickson, Weaver, & Vozikis, 2013; Wach, 2016; Głodowska, Pera, & Wach,

2016). The analysis of the differentiation of business environment in the EU countries is not a popular topic. One can talk about a kind of research gap in this area. Therefore, this article is an attempt to partially fill this gap, assuming the second hypothesis:

H2: The area of the European Union is becoming more homogeneous in terms of business conditions and at the same time recognises constant improvement of the business environment properties.

The issues of business environment are more often taken up in scientific studies in the context of interaction with other subjects or research areas. And so it can affect the business environment on the functioning of companies or on the macroeconomic perspective of the economy (Lizińska, Marks-Bielska, & Serocka, 2014). The prerequisites for seeking the dependence between business environment and economic growth are derived from the theoretical assumptions of institutional economics, international business and entrepreneurship. According to institutional economics, it is quite obvious that the knowledge and understanding of economic processes can only take place through widely defined institutions which encompass not only the economic category but also the legal, political, sociological or organisational categories. The first work on the impact of institutions on economic growth was published at the end of the 1980s. The pioneering work of Kormendi and Meguire (1985) did not confirm fully the hypothesis of the relationship between civil liberty and political rights and economic growth in the 47 countries surveyed. Similar conclusions are drawn from the elaboration of Scully (1988) and Helliwell (1994). Knack and Keefer (1995) have shown that law enforcement institutions are crucial for economic growth. The authors were the first to apply the aggregate measures developed by international institutions: International Country Risk Guide (ICRG) and Business Environment Risk Intelligence (BERI). The 1990s were filled with numerous publications using the Economic Freedom Index by the Fraser Institute, on the basis of which attempts were made to demonstrate the relationship between the regulatory environment and the growth of economy (Ayal & Karras, 1998; Dawson, 1998; Easton & Walker, 1997).

An excellent addition to the review of research on business environment linked with economic growth is international business. In this field, the studied areas should be considered through the prism of the internationalisation process, the functioning of multinational corporations, as well as the location of foreign direct investment (Ganni, 2011; Edrees, 2015; Bobenič-Hintošová, Kubíková, & Ručinský, 2016). In recent years, the area of research related to the internationalisation process has been very dynamic, which indicates that the environment is essential for deciding on internationalisation as well as for its development (Belniak, 2015; Lisowska, 2016; Wach, 2016). On the other hand, internationalisation as a contribution to more efficient specialisation and resource allocation can be considered as an important factor for growth processes in economy. Lejko and Bojnec (2011) investigated the relationship between internationalisation at the macro level and the scale of foreign investment, as well as economic growth in the Central and Eastern European countries. At the micro level, it is also studied how the process of internationalisation contributes to the creation of new jobs, innovation and the overall improvement of the competitiveness of the business entities (Boermans & Roelfsema, 2015). In the light of the entrepreneurial theory, business environment is the foundation for developing a modern market economy. It contributes to the emergence of new companies, which in turn results in improved competitiveness and innovation (Klapper & Love, 2010).

Messaoud and Teheni (2014) rightly point out that the overwhelming number of works do not directly relate to the causal link between business environment and economic growth. According to the authors, works which indirectly relate to the researched issues, indicating, for example, the correlation between business environment and productivity, investment, innovativeness or efficiency of factors of production, prevail. The methodology employed by the World Bank, implemented by Djankov, La Porta, Lope – de – Silanes and Shleifer (2002), contributed significantly to the growth of studies dealing directly with business environment – economic growth. Hanusch (2012) examined the extent to which the Doing Business indicators impacted the reform process in 175 economies, indicating that the Doing Business components of contract execution and borrowing are of the utmost importance. Dawson (2006) studied the indirect and direct impact of business regulation on growth. He argued that countries with fewer business restrictions reported higher growth rates due to higher total factor productivity. Similar results were obtained by Castro, Clementi and MacDonald (2004), Haider (2012) and Ani (2015). Ani (2015) presents an analysis of the relationship between the components of the Doing Business Index and Gross Domestic Product in 29 East, South and South East Asian countries. It turns out that in these countries, the most important factors for the economy were: dealing with construction permits, getting credit, registering property and trading across borders, while the first two factors affected the economy in a limited manner.

The above-mentioned articles refer to a large number of countries. Most studies cover several dozen or more economies (Hanusch, 2012; Edrees, 2015; Hussain & Haque, 2016). Against this background, the research gap on the European Union area is highlighted. Conducting research on the relationship between business environment and economic growth in the European Union seems to be particularly justified. Stimulating economic growth and improving Europe's competitiveness by removing barriers, creating an environment conducive to investment and innovation is rooted in the very idea of integration. It is also formally constituted by the concept of creating the European Single Market. Given the above, the following research hypothesis was formulated:

H3: Business environment affects the level of economic growth. In the European Union, positive changes in the components of the business environment have had a positive effect on the pace of economic growth.

MATERIAL AND METHODS

The aim of this article is to present the results of a comparative analysis of the economic growth and business environment of the European Union countries in the context of convergence processes. In the first place, this refers to the convergence of income, understood as the equalisation of GDP per capita in the European Union countries over time and then the convergence of the business environment of these economies. In addition, the results of studies on the impact of business environment on economic growth in the area of European Union countries are presented.

For the analysis of economic growth, a measure of GDP per capita expressed in terms of purchasing power parity was used. Business environment is understood as a whole of phenomena, processes, entities, units shaping the functioning and development of companies. As variables which describe the business environment of the European Union

countries, the Doing Business Index developed by the World Bank was chosen. This is a measure proposed by Djankov, La Porta, Lope – de – Silanes and Shleifer (2002), which comprehensively covers all the key aspects of establishing and running a business, especially from an international business perspective. The aggregate measure of the Easy of Doing Business Index consists of ten subcategories shown in Table 1.

Table 1. The Easy of Doing Business Indicators characteristics

Abbr.	Subindices	Components
SB	Starting a Business	Procedures to start and operate a company (number) Time required to complete each procedure (days) Costs required to complete each procedure (% of income per capita) Paid – in minimum capital (% of income per capita)
DCP	Dealing with Construction Permits	Procedures to build a warehouse (number) Time required to complete each procedure (days) Costs required to complete each procedure (% of warehouse value) Building Quality Control (scale)
GE	Getting Credit	Procedures to obtain electricity connections (number) Time required to complete each procedure (days) Costs required to complete each procedure (% of income per capita) Reliability of supply and transparency on tariff index (scale) Price of electricity (USD per kilowatt-hour)
RP	Registering Property	Procedure to transfer title of immovable property (number) Time required to complete each procedure (days) Costs required to complete each procedure (% of property value)
GC	Getting Credit	Strength of legal rights index (scale) Depth of credit information index (scale) Credit bureau coverage (% of adults) Credit registry coverage (% of adults)
PI	Protecting Minority Investors	Extent of disclosure index (scale) Extent of director liability index (scale) Easy of shareholder suits index (scale) Extent of conflict of interest regulation index (scale) Extent of shareholder rights index (scale) Extent of ownership and control index (scale) Extent of corporate transparency index (scale) Extent of shareholders governance index (scale) Strength of minority investor protection index (scale)
PT	Paying Taxes	Tax payments for manufacturing company (number per year) Time required to comply with three major taxes (hours per year) Total tax and contribution rate (% of profit before all taxes) Postfiling index
TAB	Trading Across Borders	Time to export: Border and documentary compliance (hours) Costs to export: Border and documentary compliance (USD) Time to import: Border and documentary compliance (hours) Costs to export: Border and documentary compliance (USD)
EC	Enforcing Contracts	Time required to enforce a contract through the courts (days) Costs required to enforce a contract through the courts (% claim value)
RI	Resolving Insolvency	Time required to recover debt (years) Cost required to recover debt (% of debtor's estate) Outcome Recovery rate for secure creditor (USD)

Source: own study based on the World Bank (2017).

The World Bank methodology uses a dual approach to measuring business environment using the following measures: 1) it is a ranking of countries based on the Easy of Doing Business Index, 2) it is a relative ranking of each country with regard to the benchmark, i.e. the country with the highest score. The benchmark economy is measured on a scale from 0 to 100, where 0 is the lowest and 100 is the benchmark. The assessment of the business environment in the economies compared is done for the aggregate measure as well as the individual indices. In this article, the Easy of Doing Business Index and its constituents are used in a relative way, i.e. on a scale of 0-100 for all economies of the European Union (EU28).

A analysis of the convergence of both economic growth and business environment was conducted on the basis of descriptive statistics as well as the coefficient of dispersion of GDP per capita and the Easy of Doing Business Index. The decreasing value of the dispersion co-efficient in subsequent years indicates the occurrence of the convergence process. It is called sigma convergence (Leaonardo, 2005; Wałęga, 2014; Głodowska, 2017). The discrepancy is due to the limited availability of Doing Business data, which was actually introduced in 2004, but the unified methodology and data availability only come from 2010.

The variables of the aggregate measure Easy of Doing Business (Table 1) were used to analyse the relationship between business environment and economic growth in the European Union. They are explanatory variables. The economic growth expressed by the GDP per capita index is explained. Assuming a system of time delays, the business environment measures will concern 2015, and the economic growth will be from 2016. The adopted assumption is that business environments affect economic growth with annual time lags. As a research tool, multiple regression as well as backward stepwise regression were used. The model was verified by normality test, autocorrelation, heteroscedasticity and stability tests. The adopted model is in the form (1):

$$Y_i = b_0 + b_1X_1 + \cdots + b_kX_k + e_i \tag{1}$$

where:

Y_i - dependend varialbe (GDP per capita);

X_1, X_k - independend variables (SB,DCP,GE,RP,GC,PI,PT,TAB,EC,RI).

RESULTS AND DISCUSSION

Results of the descriptive statistics of GDP per capita and the aggregated value of the Easy of Doing Business Index for the European Union countries were presented using box figures. The descriptive statistics for business environment cover the years 2010-2018, and for GDP per capita 2000-2016.

On the basis of descriptive statistics, the business environment of the European Union countries can be characterised as moderately differentiated. Visually, the gap between the highest and lowest values of Easy of Doing Business seems to be significant, but the scale shows that there is a difference of about 25 points in the year of the greatest divergence. It should be noted that the business environment measure for each country is depicted relatively, i.e. with regard to the benchmark economy. In the early years of the analysis, the heterogeneity of the business environment in the EU was considerably greater. In the coming years, we can talk about the progressive convergence of business environment in the EU member states. This is evidenced by the decreasing distance between the upper and lower limits, as well as between the first quartile (lower edge of the box) and the third quartile

(upper edge of the box). It can also be seen from the figure that in the presented period there was an improvement of the business environment of the EU countries, understood as the reduction of the distance from the best result = 100. This is due to an increase in the median value, an increase in the minimum value as well as the left-sided asymmetry stating that more countries have higher values of features in recent years of the analysis.
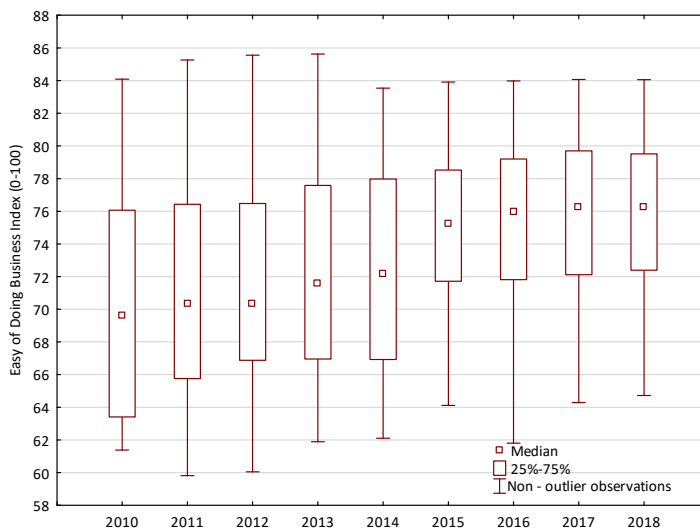

Figure 1. Descriptive statistics of the Easy of Doing Business Index for the EU countries in the years 2010-2018

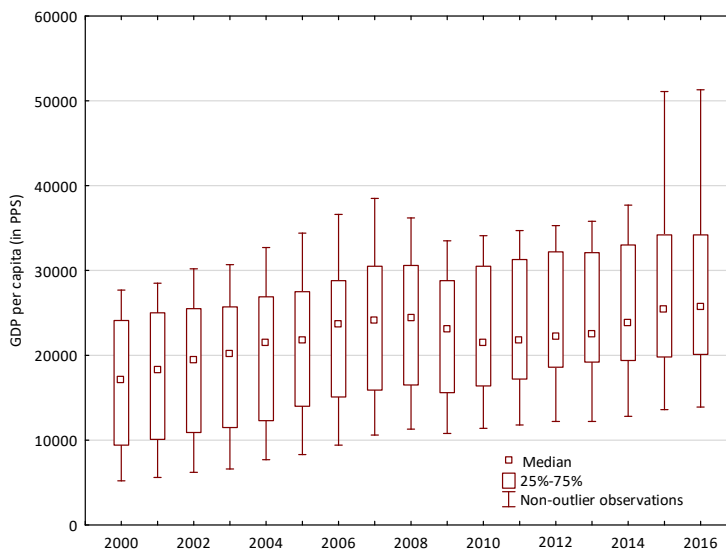Source: own elaboration based on the World Bank Database.

Figure 2. Descriptive statistics of GDP per capita for the EU countries in the years 2000-2016

Source: own elaboration based on the World Bank Database.

The results of analysis of the distribution of GDP per capita in the EU countries show a very large income gap. This variability is far greater than in the case of the business environment presented in Figure 1. It is also difficult to assess the nature of growth trends in the context of convergence or divergence. It should be noted that Figure 2 presents the values for the EU countries without Luxembourg since the very high GDP per capita values for that country caused the overall lack of readability of Figure 2. The item illustrating GDP per capita of Luxembourg in Figure 2 would be treated as the so-called "outlier". Luxembourg's income per capita is several times higher than the average GDP per capita of other member states. Large income diversification in the EU is visible on the basis of the gap between the highest and the lowest GDP per capita and in the different groups of countries coming in the first, second and third quartiles respectively. In the following years, the increase in the income per capita of the poorest countries is visible, with the growth rate significantly higher than in 2007. After that year, the growth rate of the poorest countries declines, and in the case of the richest countries, GDP per capita has fallen sharply. Median values are also lowered. However, the visible left-sided asymmetry between 2009 and 2014, saying that more countries have higher GDP per capita levels may indicate that the economic crisis of 2007-2009 had a particularly negative impact on selected economies, which has caused a significant reduction in the value of the median. Figure 2 also shows that greater income homogeneity is observed in the group of countries with higher GDP per capita (fourth quartile). The last two boxes of the Figure illustrate this particular situation. In the last two years of observation, the opposite trend is visible, that is, the distance between the upper limit and the upper edge of the box drastically increases. This is due to a very dynamic growth of income per capita in Ireland, visible right-sided asymmetry is the consequence of only this case.

Figures 3 and 4 present the results of the sigma convergence analysis which states that the dispersion of income distribution per capita decreases over time.
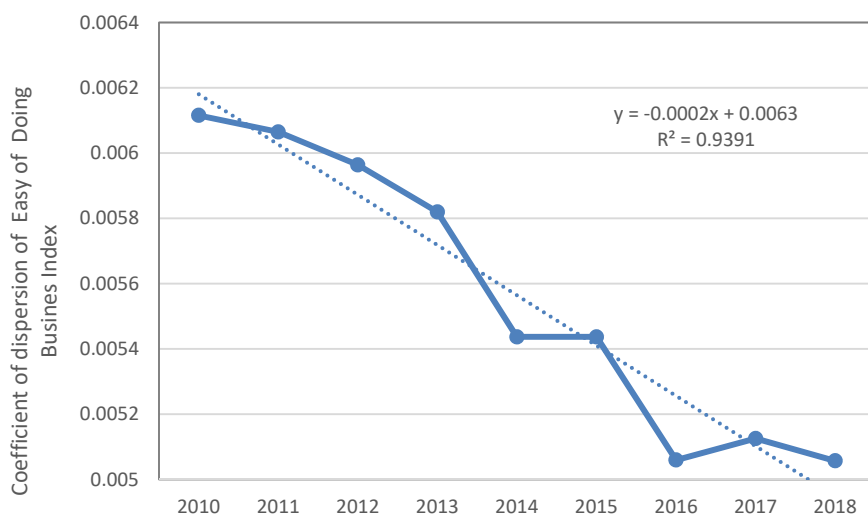

**Figure 3. Sigma convergence of the Easy of Doing Business Index in the EU countries
in the years 2010-2018**
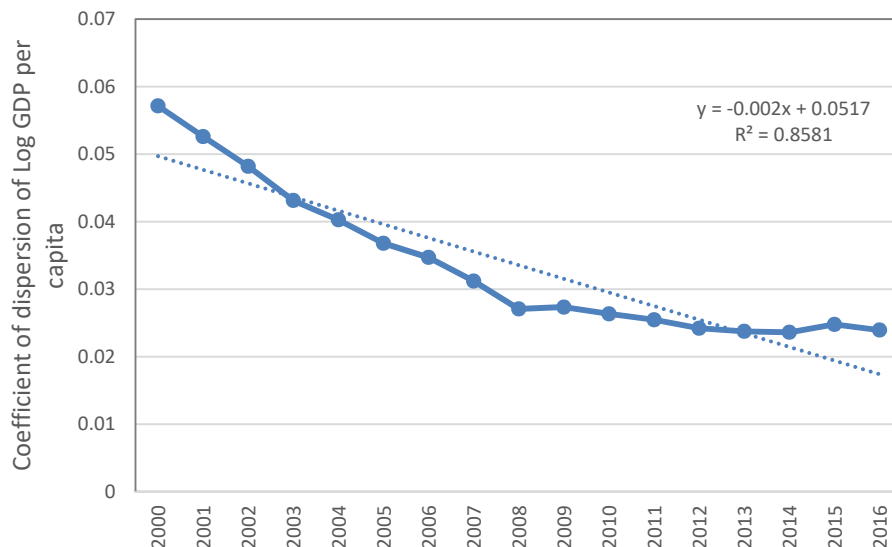Source: own elaboration based on the World Bank Database.

Figure 4. Sigma convergence of GDP per capita in the EU countries in the years 2000-2016
Source: own elaboration based on the World Bank Database.

Inclination of the figure line indicates the progressive convergence of the business environment as well as the income of the European Union countries, with the trend being more pronounced in Figure 3. We can therefore say that in the analysed years the EU economies were approaching in terms of the environmental conditions of business. In the case of GDP per capita, convergence is clearly visible until 2007, a decisive slowdown of convergence has occurred after 2007, which confirms the negative impact of the crisis of 2007-2009 on the growth processes in the Union. The determination coefficient in both cases achieves a relatively high value indicating very good fit of the model to the empirical data. It proves that hypotheses 1 and 2 were confirmed in the article.

The results of the analysis of the relationship between the business environment and the economic growth of European Union countries are presented in Table 2.

The regression model validation deemed that the errors are normally distributed (Dornik-Hansen Test, p-value 0.7095) and that there is no heteroscedasticity in the model (White Test, p-value 0.3191). Additionally, the result of Ramsey Reset Test showed that the error does not exist (Ramsey Reset Test, p-value 0.3941).

On the basis of the regression analysis it can be stated that the business environment as measured by the Easy of Doing Business Index has a significant impact on the economic growth of the EU countries. This is shown by p-value for F Statistics (0.0449) as well as the standard error of the model (1.001147). It is worth adding that p-value is relatively high and very close to the established statistical significance assuming we accept the standard level of statistical significance 0.05. The determination coefficient of 0.597 states that the model is moderately well suited to real values. About 60% of the total variability in growth can be explained by changes in the value of the Easy of Doing Business Index, and above all by registering property, protecting investors, paying taxes, and enforcing contracts. Thus, hypothesis 3 was positively verified in the article. On the basis of backward step-

wise regression one may identify the areas of business environment which are most important for economic growth. With the p-value at 0.0065 and determination coefficient of 0.599 it turns out that paying taxes most affect the economic growth of the analysed countries. This area refers to the number and timing of payments within a year, the size of interest rates, taxation of labour and other tax liabilities.

Table 2. Regression summary for the effect of the business environment on economic growth among the EU countries

Variable	Coefficient	Std.Error	t-Statistic	p-value.
Constant	5.2189	4.3925	1.188	0.2511
SB	−0.0786	0.0456	−1.725	0.1027
DCP	−0.0357	0.0293	−1.222	0.2385
GE	−0.0441	0.0260	−1.697	0.1079
RP	**0.0490**	**0.0216**	**2.272**	**0.0364**
GC	−0.0263	0.0166	−1.587	0.1310
PI	**0.0753**	**0.0372**	**2.023**	**0.0591**
PT	**0.0701**	**0.0313**	**2.236**	**0.0390**
TAB	−0.0611	0.0690	−0.8858	0.3881
EC	**0.0477**	**0.0272**	**1.756**	**0.0971**

$R = 0.7728$; $R^2 = 0.5973$; Adjusted $R^2 = 0.3604$; $F(10, 17) = 2.5213$; $p < 0.0449$; Std.Err. of Estimate: 1.0011
Source: own study based on the World Bank and Eurostat Databases.

The results of the analysis of convergence processes of the business environment and the income of the European Union countries confirm the existence of changes consistent with the hypothesis of convergence. In the area of income convergence analysis, these results are in line with the study conducted by Matkowski and Próchniak (2009, 2014). Similar results were also obtained by Stanišić (2012), while in this study, the group of countries was more numerous, including Bulgaria, Romania and Croatia. It is therefore an advantage to include all members of the Union in the study. The analysis of business environment points to moderate diversity of the European Union states under this area. However, the complexity, turbulence and unpredictability of the environment are emphasised (Witkowska, 2007; Militaru & Pavel, 2012). Linking business environment with economic growth seems to be justified. Dependency analysis indicates a significant impact of business environment on the level of income of the analysed economies. Similar results were obtained by Ani (2015) for the Asian group of countries, as key determinants of economic growth, the author pointed out trading across barriers, dealing with construction permits, getting credit and registering property. This is in line with previous studies by Djankov, McLiesh and Ramalhom (2006) and Haunsch (2011). Messaoud and Teheni (2014) conducted a very detailed study of 162 countries between 2007 and 2011 using not only easy of doing business indices as dependent variables but also control variables. This is a more complex and detailed study. The authors point to the positive correlation between business environment and economic growth, but these results are not so clear. The lack of comparable research for a group of European Union states is, on the one hand, an advantage of the study, thus filling the gap. On the other hand, there is no possibility of referring to and confronting competing elaborations.

CONCLUSIONS

The purpose of the article was to compare the business environment and the economic growth of European Union countries as well as changes taking place in these areas in the context of the convergence of the European Union. Moreover, an attempt was made to verify the extent to which business environment implies economic growth. Changes in the business environment across the European Union, as well as upward trends indicate a gradual approach of member economies in these areas. A quantitative analysis of dependence of growth on the business environment has also been confirmed.

Positive verification of the research hypotheses is very important. It is believed that the elaboration has strong application properties. The results obtained can be important for policy makers. Demonstrating a positive link between business environment and economic growth should be viewed as a guideline and orientation for reforms, changes and regulatory improvements.

The study is not deprived of limitations. They are formal as well as substantive. The scope of analysis was largely determined by the availability of data. In the case of examining the dependence of economic growth on the business environment, it is suggested to accept more research periods, i.e. to conduct panel research. It is also worth to include other variables that are also considered to be determinants of growth. Analysis of the convergence itself was based on the so-called classical measure resulting from neoclassical growth theory. In subsequent studies, it is recommended to include a more complex tool based on the assumptions of the endogenous growth model. In addition, in subsequent studies it is worth increasing the number of years accepted for analysis, which in view of the upward trend is highly recommended. This elaboration can be treated as a preliminary study on interrelation between business environment and economic growth in the context of economic convergence of the EU countries. Further research on the influence of business environment not only on economic growth but also on economic convergence within the European Union countries is highly recommended.

REFERENCES

Alexe, I. (2012). How Does Economic Crisis Change the Landscape of Real Convergence for Central and Eastern Europe?. *Romanian Journal of Fiscal Policy (RJFP), 3*(1), 1-8.

Ani, T.G. (2015). Effect of Ease of Doing Business to Economic Growth among Selected Countries in Asia. *Asia Pacific Journal of Multidisciplinary Research, 3*(5), 139-145.

Antonakakis, N., Christou, C., Cunado, J., & Gupta, R. (2017). Convergence patterns in sovereign bond yield spreads: Evidence from the Euro Area. *Journal of International Financial Markets Institutions & Money, 49*, 129-139. doi: 10.1016/j.intfin.2017.03.002

Ayal, E.B., & Karras, G. (1998). Components of economic freedom and growth: An empirical study. *Journal of Developing Areas, 32,* 327-338.

Barro, R.J., & Sala – i – Martin, X. (2003). *Economic Growth.* Cambridge – London: The MIT Press.

Belniak, M. (2015). Factors Stimulating Internationalisation of Firms: An Attempted Holistic Synthesis. *Entrepreneurial Business and Economics Review, 3*(2), 125-140. http://doi: 10.15678/EBER.2015.030209

Bobenič-Hintošová, A., Kubíková, Z., & Ručinský, R. (2016). Does Quality of Business Environment Influence Foreign Direct Investment Inflows? A Case of Cenral European Countries. *European Journal of Management*, 3(1). doi: 10.5817/CEJM2016-1-1

Boermans, M.A., & Roelfsema, H. (2016). Small firm internationalization, innovation, and growth. *International Economics and Economic Policy, 13*(2), 283-296.

Castro, R., Clementi, G.L., & MacDonald, R. (2004). Investor Protection, Optimal Incentives, and Economic Growth. *The Quarterly Journal of Economics, 119*(3), 1131-1175.

Cuestas, J.C., Monfort, M., & i Ordonez, J., (2012). *Real Convergence in Europe; A cluster analysis* (Sheffield Economic Research Paper Series SERP no. 2012023). Sheffield: University of Sheffield.

Deichmann, J.I., Eshghi, A., Haughton, D., & Li, M. (2017). Socioeconomic Convergence in Europe One Decade After the EU Enlargement of 2004: Application of Self – Organizing Maps. *Eastern European Economics, 55*(3), 236-260. doi: 10.1080/00128775.2017.1287547

Dawson, J.W. (1998) Institutions, investment and growth: new cross-country and panel data evidence. *Economic Inquiry, 36*, 603-619.

Dawson, J.W. (2006). Regulation, Investment, and Growth across Countries. *Cato Journal, 26*(3). 489-509.

De la Fuente, A. (1997). The Empirics of Growth and Convergence: A Selective Review. *Journal of Economic Dynamics and Control, 21*(1), 23-73.

Dickson, P.H., Weaver, K.M., & Vozikis, G.S. (2013). The Impact of the Institutional Environment on SME Internationalization: An Assessment of the Environmental Assumptions of Emerging Integrated Models of Internationalizatoin. *Journal of Applied Business and Economics, 15*(3), 43-55.

Djankov, S., La Porta, R., Lope-de-Silanes, F., & Shleifer, A. (2002). The Regulation of Entry. *The Quarterly Journal of Economics, 117(*1), 1-37.

Djankov, S., McLiesh, C., & Ramalhom, R. (2006). Regulation and growth. *Economics Letters, 92*(3). 395-401

Easton, S., & Walker, M. (1997). Income, growth, and economic freedom. *American Economic Review, 87*(2), 328-332.

Edrees, A. (2015). Foreign Direct Investment, Business Environment and Economic Growth in Sub-Saharan Africa. Pooled Mean Group Technique. *Journal of Global Economy*, *3*(2), 144-149. doi:10.4172/2375-4389.1000144

European Commission (2010). *Investment in Europe's Future. The Fifth Cohesion Report.* Brussel: European Commission.

European Commission (2014). *Investment for Jobs and Growth. Promoting Development and Good Governance in EU Regions and Cities. The Sixth Cohesion Report*. Brussel: European Commission.

European Commision (2016). *Report on Single Market integration and competitiveness in the EU and its Member States.* Brussel: European Commission.

Eurostat Database. Economy and Finance Database. Retrieved on October 12, 2017 from http://ec.europa.eu/eurostat/data/database

Furková, A., & Chocholatá, M. (2016). Spatial Econometric Modelling of Regional Club Convergence in the European Union. *Ekonomicky Casopis, 64*(4), 367-386.

Ganni, A. (2011). The Relationship between Business Environment and Foreign Direct Investment in Developing Countries. *Global Review of Business and Economic Research GRBER*, *7*(1), 71-86.

Giannetti, M. (2002). The effects of integration on regional disparities: Convergence, divergence or both?. *European Economic Review, 46,* 539-567.

Głodowska, A., Pera, B., & Wach, K. (2016). International Environment and its Influence on the Entrepreneurial Internationalisation of the Firm: The Case of Polish Businesses, in: K. Wach & A. Żur (Eds.), Advancing Research in Entrepreneurship in Global Context: Conference Proceedings of the

8th ENTRE Conference. Kraków: Cracow University of Economics [Later published also as: Głodowska, A., Pera, B., & Wach, K. (2016). International Environment and its Influence on the Entrepreneurial Internationalisation of the Firm: The Case of Polish Businesses. *Problemy Zarządzania, 14*(3), 107-130].

Głodowska, A. (2017). Problem zbieżności dochodowej państw Unii Europejskiej w świetle klasycznych modeli konwergencji. In M. Maciejewski & K. Wach (Eds.), *Handel zagraniczny i biznes międzynarodowy we współczesnej gospodarce* (pp. 75-89). Kraków: Uniwersytet Ekonomiczny w Krakowie.

Haider, J.I. (2012). The impact of business regulatory reforms on economic growth. *Journal of The Japanese and International Economies, 26,* 285-307.

Hanusch, M. (2012). *The Doing Business Indicators, Economic Growth and Regulatory Reform* (World Bank Policy Research Working Paper no. 6176). Washington: World Bank.

Helliwell, J.F. (1994). Empirical Linkages Between Democracy and Economic Growth. *Journal of Political Science, 24,* 225-248.

Hussain, M.E., & Haque, M. (2016). Impact of Economic Freedom on the Growth Rate: A Panel Data Analysis. *Economies, 4*(5), 1-15. doi: doi:10.3390/economies4020005

Islam, N. (2003). What have we learned from the convergence debate?. *Journal of Economic Surveys, 17*(3), 309-362.

Klapper, L., & Love, I. (2010). *The Impact of Business Environment Reforms on New Firm Registration* (World Bank Policy Research Working Paper no. 5493). Washington: World Bank.

Knack, S., & Keefer, P. (1995). Institutions and Economic Performance: Cross – Country Tests Using Alternative Institutional Measures. *Economics and Politics, 7*(3), 207-227.

Kormendi, R.C., & Meguire, P.G. (1985). Macroeconomic Determinants of Growth: Cross-Country evidence. *Journal of Monetary Economics, 16(2),* 141-163. https://doi.org/10.1016/0304-3932(85)90027-3

Lejko, I., & Bojnec, Š. (2011). Internationalization and Economic Growth: The Comparison of European Economies. Proceedings of 8th International Conference "Economic Integration, Competition and Cooperation", 6-9 April, Opatija, University of Rijeka. Retrieved on November 14, 2017 from https://ssrn.com/abstract=2232632 or http://dx.doi.org/10.2139/ssrn.2232632

Leonardo, R. (2005). Have Regions Converged? Sigma and Beta Convergence in Objective 1 and Other EU Regions between 1988 and 1999. In R. Leonardi (Ed.), *Cohesion Policy in the European Union* (pp. 89-106). London: Palgrave Macmillan.

Lisowska, R. (2016). The Potential of Business Environment Institutions and the Support for the Development of Small and Medium-sized Enterprises. *Entrepreneurial Business and Economics Review, 4*(3), 85-101, http://dx.doi.org/10.15678/EBER.2016.040307

Lizińska, W., Marks-Bielska, R., & Serocka, I. (2014). Operations Performed by Business Environment Institutions in the Process of Foreign Investment Acquisition: a Case Study of Investor Service Centres. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 9(4), 65-78. https://doi.org/https://doi.org/10.12775/EQUIL.2014.025

Maciejewski, M. (2017). Zróżnicowanie kondycji gospodarczej państw Unii Europejskiej. *Studia Ekonomiczne, 219,* 117-126.

Matkowski, Z., & Próchniak, M. (2005). Zbieżność rozwoju gospodarczego w krajach Europy Środkowo – Wschodniej i w stosunku do Unii Europejskiej. *Ekonomista, 3,* 293-320.

Matkowski, Z., & Próchniak, M. (2014). Realna konwergencja dochodowa w UE - pozycja i szanse Polski. In M.A. Weresa (Ed.), *Polska. Raport o konkurencyjności 2014. Dekada członkostwa Polski w Unii Europejskiej* (pp. 45-63). Warszawa: Instytut Gospodarki Światowej, Szkoła Główna Handlowa w Warszawie.

Mello, M., & Perrelli, R. (2003). Growth Equations: A Quantile Regression Exploration. *Quarterly Review of Economics and Finance*, *43*(4), 643-667.

Messaoud, B., & Teheni, Z.E.G. (2014). Business regulations and economic growth. What can be explained?. *International Strategic Management Review, 2*(2), 69-78.

Milanovic, B. (2003). *Income Convergence during the Disintegration of the World Economy, 1919-39* (World Bank Policy Research Working Paper no. 2941). Washington: World Bank.

Militaru, C., & Pavel, A.P. (2012). Euromanagement and European Business Environment. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 2*(1), 96-102.

Próchniak, M., & Witkowski, B. (2016). On the use of panel stationarity tests in convergence analysis: empirical evidence for the EU countries. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 11(1), 77-96. https://doi.org/https://doi.org/10.12775/EQUIL.2016.004

Rapacki, R., & Próchniak, M. (2014). The Impact of EU Membership on Economic Growth and Real Convergence of the Central and Eastern European Countries. *Ekonomia Journal, 39,* 39-87.

Recher, V., & Kurnoga, N. (2017). European Integration Perspectives: From Cohesion to Divergence?. *Acta Oeconomica, 67*(2), 195-214.

Scully, G.W. (1988). The Institutional Framework and Economic Development. *Journal of Political Economy, 96*(3), 652-662.

Smolny, W. (2000). Post-War Growth, Productivity Convergence and Reconstruction. *Oxford Bulletin of Economics and Statistics*, *62*(5), 589-606.

Stanišić, N. (2012). The effects of the economic crisis on income convergence 506 in the European Union. *Acta Oeconomica. Periodical of the Hungarian Academy of Sciences, 62*(2), 161-182.

Verblane, U., & Vahter, P. (2005). *An Analysis of the Economic Convergence Process in the Transition Countries* (Working Paper Series no. 37)*.* Tartu: University of Tartu. Retrieved on July 24, 2017 from ftp://ftp.repec.org/opt/ReDIF/RePEc/mtk/febpdf/febawb37.pdf

Wach, K. (2016). Otoczenie międzynarodowe jako czynnik internacjonalizacji polskich przedsiębiorstw. *Prace Komisji Geografii Przemysłu Polskiego Towarzystwa Geograficznego, 30*(1), 7-20.

Wałęga, A. (2014). Spójność ekonomiczna regionów Polski przed i po przystąpieniu do Unii Europejskiej. *Badania Ekonometryczno-Statystyczne w Teorii i Praktyce, 203,* 172-180.

Witkowska, J. (2007). Foreign Direct Investment in the Changing Business Environment of the European Union's New Member States. *Global Economy Journal, 7*(4), 1-32. https://doi.org/10.2202/1524-5861.1233

World Bank (2017). *The Easy of Doing Business Indicator*. Retrieved on November 15, 2017 from http://www.doingbusiness.org/Custom-Query

Author

Agnieszka Głodowska

Assistant Professor at the Department of International Trade, Faculty of Economics and International Relations, Cracow University of Economics (Kraków, Poland). Lecturer of Methods of Payment in International Business, Risk and Insurance in International Business, Convergence Processes in the Economy. Her research focuses on international business, finance and risk in international business, convergence/divergence processes.

Correspondence to: Agnieszka Głodowska, PhD, Cracow University of Economics, Rakowicka 27, 31-510 Kraków, Poland, e-mail: glodowsa@uek.krakow.pl