ECONOMIC CONVERGENCE OF THE BALKAN COUNTRIES TOWARDS THE EUROPEAN UNION

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Abstract

This paper aims to analyze the economic performance of Balkan countries in comparison to the European Union (EU) average, with the objective of assessing the convergence of Balkan nations toward the EU during the period 2000–2019. The economic variables under consideration encompass per capita income, the corruption perception index (CPI), salary levels, and direct foreign investments. Employing β-convergence, rooted in neoclassical growth theories, this study aims to test the hypothesis that economically disadvantaged countries experience more rapid growth in per capita income than their wealthier counterparts. The empirical findings of this investigation reveal a discernible long-term convergence among the Balkan countries themselves, as well as towards the EU member states. The rate of convergence exhibits variations contingent upon the developmental status of the respective countries, along with nuances related to their economic structure and corruption levels. Despite these observed convergences, a substantial gap persists, and the pace of economic integration of Balkan nations into the EU appears to be a gradual process. This study underscores the complex relationship between economic convergence, country-specific characteristics, and the broader context of regional integration.

Keywords: Economic Convergence, Economic Growth, Balkan Countries

Authors' individual contribution: Conceptualization — S.G. and J.A.; Methodology — S.G. and J.A.; Software — S.G. and J.A.; Validation — S.G. and J.A.; Investigation — S.G. and J.A.; Resources — S.G. and J.A.; Writing — S.G. and J.A.; Supervision — S.G.

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1. INTRODUCTION

After the first period of the economic transition characterized by a drastic decrease in production and a high increase in unemployment and inflation (Sahay et al., 1998; Fischer & Sahay, 2000), most of the European transition countries have been committed to the integration process in the European Union (EU) (Borsi & Metiu, 2015; Kočenda, 2001; Vojinović et al., 2009). Some of the countries in question have already joined the EU over time (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Cyprus, Malta, Croatia), although they continue to have a lower income level than the EU average (Romania, Bulgaria). The other ones still have a long way to go before joining (Albania, Bosnia and Herzegovina, North Macedonia, Serbia, Montenegro, Kosovo). The economic criteria will allow these countries to catch up with the EU standard and at the same time to achieve a series of democratic policies and reforms (Tosun et al., 2014; Muço et al., 2018).

Starting from these facts, this paper aims to evaluate the real economic convergence between the different groups of the European transition countries with the average of the EU Member States. Convergence, defined as equalization of levels of

development, is a necessary condition for efficient and successful integration.

In this paper economic convergence is analyzed given the convergence of gross domestic product (GDP) per capita and income, to estimate the trend of disparity in GDP per capita and per capita income among the countries considered in this study. Furthermore, to understand the distance between the EU average with the countries in question, and with those that are already part of the EU, we will evaluate the speed of growth of GDP per capita as a precondition for income convergence, to understand whether the countries that have been taken into consideration are close to or far from the EU average. The methodology used in this study is based on Solow's (1956) classical model of economic growth and the Barro and Sala-i-Martin's (1992) models. The variables will be GDP per capita, growth rate, and per capita income.

The main empirical results of this study support the hypothesis of economic convergence, which is that poor countries tend to grow faster than rich ones in terms of GDP per capita and income. In addition, the estimated time gap for some countries to converge with EU countries is considerable, so more efforts and reforms should be devoted to boosting the economy.

Despite extensive research on the economic transition of European countries, there is a notable gap in understanding the specific dynamics of convergence among the different groups of European transition countries. The existing literature has predominantly focused on general aspects of economic transition and integration into the EU, leaving room for a more nuanced exploration of the convergence patterns within this diverse group of nations. Moreover, the temporal dimension of the economic transition, especially after the initial phase characterized by drastic changes, has received limited attention in the literature.

The primary aim of this paper is to assess the real economic convergence among various groups of European transition countries in comparison to the average of EU Member States.

The research questions of this study are as follows:

RQ1: To what extent do different groups of European transition countries exhibit economic convergence with the EU average?

RQ2: How does the convergence of GDP per capita and income contribute to understanding the economic disparities among the countries under consideration?

RQ3: What is the speed of growth of GDP per capita for the countries in question, and how does it relate to the EU average?

The study is grounded in Solow's (1956) classical model of economic growth and incorporates elements from the Barro and Sala-i-Martin' (1992) models. Solow's model provides a foundational understanding of economic growth based on capital accumulation, technological progress, and diminishing returns. The Barro and Sala-i-Martin's models extend this framework by incorporating human capital and emphasizing the role of policies in influencing growth rates.

The study is highly relevant, given the ongoing economic transition and integration processes of European transition countries. Understanding the convergence dynamics is crucial for policymakers, economists, and stakeholders involved in shaping regional economic policies.

The significance lies in the potential insights into the economic disparities and convergence trends among European transition countries. Identifying the factors influencing convergence rates contributes to informed decision-making for both national governments and EU institutions.

The research methodology employs regression models based on Solow's (1956) classical growth model and the Barro and Sala-i-Martin's (1992) models. The key variables include GDP per capita, growth rate, and per capita income. The analysis assesses the convergence patterns over a specific time frame, considering the diverse economic statuses and integration stages of the countries.

The main empirical findings support the hypothesis of economic convergence, indicating that poorer countries within the European transition countries tend to grow faster than their wealthier counterparts in terms of GDP per capita and income. However, the estimated time gap for some countries to converge with EU countries is substantial, underscoring the need for intensified efforts and reforms to boost their economies. These findings contribute valuable insights into the specific dynamics of convergence within European transition countries, informing future policy initiatives and academic research in the field.

The structure of this paper is as follows. Section 2 reviews the relevant literature. Section 3 presents the methodology that has been used. Section 4 analyzes the results thereby offering a comprehensive understanding of the economic convergence patterns among European transition countries. Finally, Section 5 provides the conclusion of this study.

2. LITERATURE REVIEW

In the context of the EU, economic development and cohesion policies have received more attention since the 1980s. The EU has often been asked whether the policies implemented at the EU level have contributed to redistributing income and whether they have positively influenced convergence. Related to this, the process of economic convergence between EU member states and between those aspiring to be part of the EU has always attracted attention from the academic and political worlds, in recent decades.

Numerous studies have contributed to the discussions on economic convergence and growth (Stezano, 2021; Degl'Innocenti et al., 2018; Tselios et al., 2012; Ezcurra et al., 2009; Petrakos et al., 2005; Corrado et al., 2005; Sala-i-Martin, 1996). The basis of all these studies is that economic growth changes over space and time, and those different regions have significant disparities in economic growth and well-being. Many of them raise several doubts regarding the convergence process considering it not feasible either within the EU member states or for the Eastern countries that want to join the EU. In addition, everyone agrees that the disparity of economic resources creates various levels of growth between countries.

Different countries offer different innovation services, and companies in more developed countries

tend to absorb resources from surrounding areas or neighboring countries (Longhi & Musolesi, 2007; Petrakos et al., 2011). At the same time, the tendency of less developed economies is to systematically grow at a faster rate than developed economies (Mankiw et al., 1992; Barro & Sala-i-Martín, 1995).

The income level of poorer countries should converge to that of richer countries' β-convergence, and consequently, the shifting process should stop (Sachs & Warner, 1995; Barro & Sala-i-Martin, 1992).

According to the logic of β-convergence, less rich countries (i.e., countries with lower per capita income) grow faster than richer ones (Vintrová, 2005; Mathur, 2005).

According to Stavytskyy and Kozub (2020), convergence depends on a country's growth rate, public policies, population, and economic structure in general.

Convergence also depends on the level of investment, corruption, and level of emigration of the young population of a given country (Merko et al., 2018). According to various scholars, convergence does not depend on available funds and investments themselves. Economic convergence depends on the impact that development policies and investments have on growth (Rodríguez-Pose & Fratesi, 2004; Varga & in't Veld, 2011; Reggi & Scicchitano, 2014). Other studies affirm that more than factors influencing convergence we must speak of convergence itself and the absorption capacity of convergence (Mankiw et al., 1992).

The debate on convergence itself according to Islam (2003), has led to several interpretations, such as the following: 1) convergence within an economy vs convergence between economies; 2) β-convergence vs σ-convergence.

Sala-i-Martin (1996) analyses the β and σ convergence of per capita income for 90 regions of eight European countries (Belgium, Denmark, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom), between 1950–1990, and found that regional incomes converge to a speed of two percent per year. This means the tendency is that in the long run, all regions should have a very similar (or remarkably similar level) level of income, and the countries in question will be very homogeneous in terms of income.

Corrado et al. (2005) did not find overall convergence in real per capita income within the EU-15 before the founding of the European Monetary Union. So, the overall convergence in real per capita income is a phenomenon in which we have freedom of movement of physical and human capital.

Ramajo et al. (2008) in the empirical study of EU regions in the period 1981 to 1996 concluded that the regions of the EU countries (Ireland, Greece, Portugal, and Spain) converge more rapidly than the rest of the regions. That means they support the thesis that in a community there are regions that converge faster and others slower. At the same time, they affirm that the Cohesion Funds help countries with lower incomes to grow faster and that they are especially useful for having more economic homogeneity between countries within the Union.

Cavenaile and Dubois (2011) come to a similar conclusion, showing that the convergence rates of the new countries in the EU, from Central and Eastern Europe, and the 15 Western countries differ significantly, indicating the existence of different convergence groups in the EU. So, the less developed countries tend to converge more than others within the EU.

Vâlsan and Druică (2020) affirm that the heterogeneity among the population (incomes) implies more convergence between countries and that in the end, all countries must have remarkably similar incomes, which would later stop the movement of capital between countries or regions.

Degl'Innocenti et al. (2018) analyze financial convergence by stating that during the "shock period", 2008–2012, the dynamics of growth policies also influenced economic convergence at the national and regional levels. The more the financial centers are competitive, the more capital is in the market, and the more the economic convergence of the regions tends to increase.

Wacziarg (2001) states that the convergence of income within a country starts from structural convergence within the regions. To have economic convergence it is necessary to start with competitiveness and technological resources, and also from the financial resources available. These all are recognized as catalysts for businesses and for promoting technological innovation.

Technical and Information Technology (IT) progress leads to increased productivity and reduced costs, as well as improved incomes. So economic convergence could be explained by convergence in competitiveness, which influences economic growth and convergence. Petrakos et al. (2005) also emphasize that it is the socio-economic and structural conditions related to the productive structure, the ability to innovate, and the infrastructural assets that act as determinants of regional growth. It is these factors that lead some regions or countries to perform positively, creating economies of scale, improving innovation, and stimulating human resources to qualify more and more to receive higher wages and economic well-being.

In the context of the EU, economic development and cohesion policies have garnered increased attention since the 1980s. The EU has faced persistent inquiries regarding the efficacy of its policies in income redistribution and their impact on fostering convergence. Academic and political interest in the process of economic convergence among EU member states and those aspiring to join the Union has intensified in recent decades.

A multitude of studies have enriched the discourse on economic convergence and growth (Stezano, 2021; Degl'Innocenti et al., 2018; Tselios et al., 2012). These studies, rooted in the understanding that economic growth undergoes spatial and temporal transformations, underscore significant disparities in economic growth and well-being across different regions. Many of these contributions cast doubt on the feasibility of the convergence process, both within the EU member states and for Eastern countries aspiring to join the EU, acknowledging the profound impact of economic resource disparities on growth differentials between nations.

Furthermore, the literature suggests that disparities in innovation services among countries lead companies in more developed nations to absorb

resources from neighboring areas (Longhi & Musolesi, 2007; Petrakos et al., 2011). Simultaneously, less developed economies exhibit a tendency to systematically grow at a faster rate than their developed counterparts (Vintrová, 2005; Mathur, 2005). According to Vintrová (2005) and Mathur (2005), the theoretical framework of β-convergence posits that the income levels of poorer countries should converge to those of richer countries, and the convergence process should eventually plateau. Following this logic, less affluent countries, characterized by lower per capita income, are anticipated to experience faster growth.

Stavytskyy and Kozub (2020) emphasize that convergence hinges on a country's growth rate, public policies, population dynamics, and economic structure. Additionally, convergence is influenced by the levels of investment, corruption, and emigration of the young population (Merko et al., 2018). Scholars argue that economic convergence is not solely contingent on available funds and investments but also on the impact of development policies and investments on growth (Rodríguez-Pose & Fratesi, 2004; Varga & in't Veld, 2011; Reggi & Scicchitano, 2014).

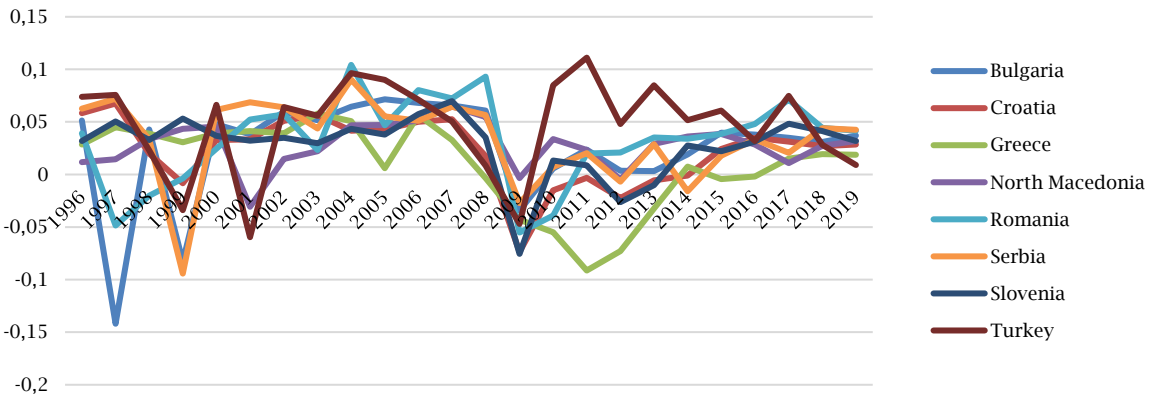
The discourse on convergence, as articulated by Islam (2003), has given rise to various interpretations, such as convergence within an economy versus convergence between economies, and β-convergence versus σ-convergence. Corrado et al. (2005) did not find overall convergence in real per capita income within the EU-15 before the establishment of the European Monetary Union, indicating that overall convergence is a phenomenon facilitated by the free movement of physical and human capital.

Ramajo et al. (2008) noted that regions in EU Cohesion Fund countries (Ireland, Greece, Portugal, and Spain) converged more rapidly than others, supporting the idea that different convergence rates exist within the EU. Cavenaile and Dubois (2011) extended this notion, highlighting significant differences in convergence rates between new Central and Eastern European EU member countries and the original 15 Western countries. Vâlsan and Druică (2020) argue that income heterogeneity among populations implies more convergence between countries, eventually leading to remarkably similar incomes and a halt in capital movement between nations. Income convergence within a country starts with structural convergence within regions, highlighting the pivotal role of competitiveness, technological resources, and financial resources (Mashamba et al., 2023). Technical and IT progress, leading to increased productivity and reduced costs, is posited as a catalyst for economic convergence, explained by the convergence in competitiveness, influencing economic growth.

3. DATA AND METHODOLOGY

The research methodology employed in our study involves the analysis of macroeconomic data from 2000 to 2019 for ten Balkan countries, namely Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Republic of North Macedonia, Romania, Serbia, Slovenia, and Turkey. The selected time series encompasses key economic indicators, including GDP per capita, corruption perception index (CPI), foreign direct investment (FDI) net inflow as a percentage of GDP, and the average wage of salaried workers. The growth rate tendency over the specified period is graphically presented in Figure 1.

Figure 1. Growth rate tendency 2000–2020



Source: Authors' calculation.

According to the economic growth literature (Barro, 1991; Barro & Sala-i-Martin, 1992; Barro & Sala-i-Martin, 1995; Barro, 1997) the term "convergence" refers to two different connotations; the first known as "σ-convergence" refers to a reduction in the dispersion of levels of income across economies, the second known as "β-convergence", occurring when poor economies grow faster than rich ones. On the other hand, we refer to "conditional β-convergence" when economies experience "β-convergence" but are conditional on other socio-economic variables being held constant.

The primary data sources for this study include reputable international databases such as the World Bank, International Monetary Fund (IMF), and other official national statistical agencies. GDP per capita, CPI, FDI net inflow percentage of GDP, and wage data are collected for each country over the 2000–2019 period. The time series data is analyzed to identify trends, patterns, and fluctuations in the selected indicators over the 2000–2019 period. Sigma-

convergence is assessed by examining the reduction in the dispersion of income levels across the ten Balkan economies. This involves measuring the standard deviation or coefficient of variation of GDP per capita.

Beta-convergence is investigated to determine whether less affluent economies have grown faster than their wealthier counterparts. This involves estimating growth rates and testing for convergence using statistical techniques. Conditional β-convergence explores the growth patterns while considering other socio-economic variables, such as corruption perception and FDI. This aims to identify whether the observed convergence is conditional on specific factors being held constant.

Nevertheless, some alternative methods would be suitable for conducting the research such as panel data analysis, dynamic panel models, spatial econometrics, machine learning techniques, and counterfactual analysis.

Utilizing panel data models could enhance the analysis by accounting for both time and cross-country variations simultaneously. This approach allows for a more comprehensive exploration of convergence dynamics. Dynamic panel models consider the lagged values of variables, providing insights into the persistence of convergence or divergence trends over time. Spatial econometrics methods could be employed to account for spatial dependencies among the Balkan countries, considering the potential impact of neighboring economies on each other. Employing machine learning algorithms, such as clustering or predictive modeling, could uncover non-linear patterns and relationships within the data, offering a more nuanced understanding of convergence dynamics. Conducting a counterfactual analysis, perhaps through simulation or synthetic control methods, could provide insights into what might have happened in the absence of specific policies or events.

While the chosen methodology provides a solid foundation for investigating convergence in the Balkan region, these alternative methods offer avenues for further exploration and validation of our findings. Researchers may choose the most appropriate method based on the specific nuances of their research questions and the available data.

4. RESULTS

4.1. Empirical analysis

The most common test for the convergence is to run the following regression, and then test the null hypothesis that $\alpha_2 = 0$:

$$g_i = \alpha_1 + \alpha_2 lny_{0,i} \quad (1)$$

where, g_i is the growth rate for country i, $lny_{0,1}$ is the level of the initial log of GDP.

The results of this regression are represented in Table 1.

Table 1. Estimates of OLS

Growth rate	*Coef.*	*St. Err.*	*t-value*	*p-value*	*95% conf*	*Interval*	*Sig.*
Ln GDP	-0.016	0.003	-4.82	0.000	-0.023	-0.01	***
Constant	0.18	0.031	5.86	0.000	0.119	0.24	***
Mean dependent variable		0.032	SD dependent variable			0.035	
R-squared		0.105	Number of obs.			200	
F-test		23.242	Prob > F			0.000	
Akaike criterion (AIC)		-797.734	Bayesian criterion (BIC)			-791.137	

*Note: *** p < 0.01, ** p < 0.05, * p < 0.1.*
Source: Authors' calculation.

The estimated value of α_2 is negative and statistically significant as expected. The negative sign indicates that convergence occurs, meaning that countries with lower initial per-capita GDP, $y_{0,i}$ should have larger growth rates. Hence, the negative relation between the growth and the initial level of GDP per capita is confirmed, see Figure 2 and Figure 3. The positioning of countries shows that countries such as Albania, Serbia, and Bosnia and Herzegovina are experiencing higher growth during the period 2000 to 2019. Quite interesting is the location of Serbia in comparison to the other region's countries. One reason for this may be related to the higher FDI flows toward this country for the study period.

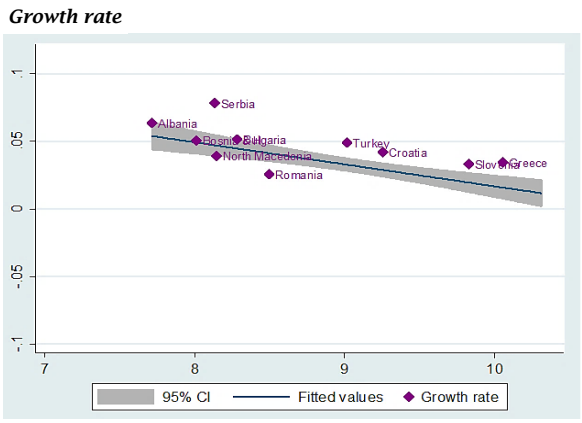
Moreover, the conditional β-convergence is confirmed as shown in Table 2, when to the regression (1) we add more control variables such as the *CPI*, *FDI inflow as a percentage of GDP*, and *wage* levels. The negative sign of α_2 still holds, even though the magnitude is lower compared to Table 1.

Table 2. Estimates of OLS, including control variables

Growth rate	*Coef.*	*St. Err.*	*t-value*	*p-value*	*95% conf*	*Interval*	*Sig.*
Ln GDP	-0.001	0.005	-0.22	0.827	-0.01	0.008	
CPI	-0.001	0.000	-4.62	0.000	-0.002	-0.001	***
FDI inflow as a percentage of GDP	0.207	0.065	3.16	0.002	0.077	0.336	***
Wage	-0.248	0.271	-0.91	0.362	-0.784	0.288	
Constant	0.09	0.036	2.50	0.013	0.019	0.162	**
Mean dependent variable		0.032	SD dependent variable			0.036	
R-squared		0.241	Number of obs.			180	
F-test		13.927	Prob > F			0.000	
Akaike criterion (AIC)		-725.133	Bayesian criterion (BIC)			-709.169	

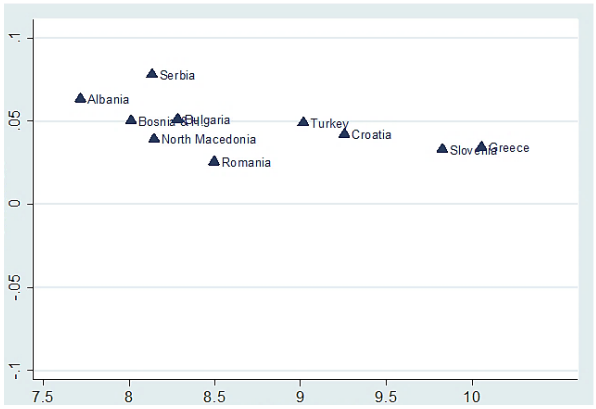
*Note: *** p < 0.01, ** p < 0.05, * p < 0.1.*
Source: Authors' calculation.

Figure 2. Growth rate analyses in comparison to the initial level of GDP



Source: Authors' calculation.

Figure 3. Growth rate analyses in comparison to the initial level of GDP



Source: Authors' calculation.

We calculate the value of β according to the following equation:

$$\beta = -\frac{1}{T}\ln(1+\alpha_2 T) \tag{2}$$

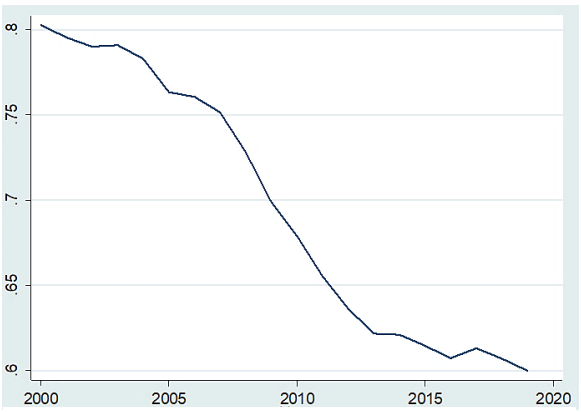
where, T is the length of the observation interval in this study of convergence. The value of β is 1.93% much lower compared to previous studies (Meksi & Xhaja, 2015), however, more in line with Barro and Sala-i-Martin (1992) which better describes the closed economies.

While the σ-convergence requires a decline over time of the GDP per capita, meaning that the dispersion of countries' GDP levels tends to decrease over time, as Figure 4 indicates:

$$\sigma_{t+T} < \sigma_t \tag{3}$$

The shape of Figure 4 in of per capita income distribution shows a reduction in the spread, meaning a convergence of the per capita income distribution towards a lower dispersion from the average. This tends to be more evident after the year 2013 as shown in the last part of the graph.

Figure 4. The standard deviation of Ln of GDP over the period 2000–2020



Source: Authors' calculation.

4.2. Discussion

The regression results presented in Table 1 provide crucial insights into the convergence dynamics among the studied Balkan countries. The estimated coefficient (α_2) for the initial log of GDP ($lny_{0,1}$) is negative and statistically significant, aligning with the expectations from the economic growth literature (Barro, 1991; Barro & Sala-i-Martin, 1992; Barro & Sala-i-Martin, 1995; Barro, 1997). The negative sign of α_2 indicates the occurrence of β-convergence, suggesting that countries with lower initial per-capita GDP experience higher growth rates. This relationship is visually confirmed in Figures 2 and 3.

The positioning of countries in the growth rate analyses, especially noting the higher growth in Albania, Serbia, and Bosnia and Herzegovina, prompts further exploration. The unique location of Serbia, potentially influenced by higher *FDI* flows during the study period, underscores the impact of external factors on economic convergence.

Table 2 extends the analysis by incorporating control variables such as the *CPI*, *FDI inflow as a percentage of GDP*, and *wage* levels. Despite a slight reduction in the magnitude of α_2 compared to Table 1, the negative sign persists, affirming conditional β-convergence. This suggests that even when accounting for additional socio-economic factors, the initial level of GDP remains a significant determinant of growth rates.

The calculation of β, as per Eq. (2), reveals a value of 1.93%, indicating the rate at which less affluent economies are catching up with their wealthier counterparts. While this value is lower than in some previous studies, it aligns more closely with the characteristics of closed economies described by Barro and Sala-i-Martin (1992).

The examination of σ-convergence, depicted in Figure 4, complements the β-convergence findings. The reduction in the standard deviation of the log of GDP over the period 2000–2020 suggests a convergence of per capita income distribution, with a notable decrease in dispersion post-2013.

The confirmation of β-convergence, both in its unconditional and conditional forms, implies that

policies fostering the initial stages of economic development can have long-lasting impacts on subsequent growth rates. The identified patterns suggest that efforts to attract FDI, manage corruption, and address wage disparities can play pivotal roles in shaping the convergence trajectory.

While this study provides valuable insights, it is essential to acknowledge its limitations. The use of macroeconomic data imposes constraints on the granularity of our analysis. Future research could employ more nuanced methodologies, such as micro-level analyses or qualitative approaches, to better understand the underlying mechanisms driving convergence.

In conclusion, our study contributes to the understanding of economic convergence in the Balkan region. The evidence of β-convergence, both unconditional and conditional, coupled with the observed reduction in income distribution dispersion, signifies a positive trajectory. The identified growth patterns and country-specific dynamics underscore the importance of tailored policy interventions to foster sustainable economic convergence.

5. CONCLUSION

In this paper, we investigate the convergence process of the Balkan countries towards the EU countries. The analyzed period is 2000–2019, thus, avoiding the first transition period.

Compared to the existing empirical literature, our analysis has the advantage of using the corruption index to demonstrate whether economic convergence depends only on economic factors such as per capita income, the level of wages or FDI, or on institutional factors such as corruption.

Referring to the data on the increase in income per capita, it appears that the Balkan countries during the last 2 decades have had a higher average economic growth compared to the average of the EU countries.

The empirical results in this paper suggest that economic convergence occurs in all the Balkan countries against the EU for the period taken in the study.

As anticipated, the coefficient is negative and statistically means a long-run absolute convergence. However, the calculated β is quite low around 1.93%.

According to the theory, this level of β implies a half-life of 28 years is necessary for disparities to be reduced. Therefore, for the former Yugoslav countries or for countries like Albania, it will take at least three more decades to economically integrate into the EU and have the same level of per capita income as the EU average.

Moreover, including control variables such as the *CPI*, *FDI inflow as a percentage of GDP*, and *wage* levels the economic convergence remains, and the result does not change.

This means that the macroeconomic variable wage does not affect the growth of income per capita and as a consequence has no impact on the economic convergence of countries.

Theoretically, this result confirms that the growth process should lead countries toward a steady state in the long run.

Furthermore, the σ-convergence is also confirmed using the same data panel. The analyses of standard deviations indicate per capita income distribution towards a lower dispersion from the average.

Even, though this study depends on a relatively short time span of 20 years, it gives us valuable information related to the aim of the paper, testing the economic convergence of the region's countries.

The results of this study are important for policymakers as they show that the reduction of corruption would have a positive impact on the increase of real income per capita and as a consequence would accelerate the economic convergence of countries.

Future study needs to be done in order to verify the economic convergence in the short term and in the long term, however, additional data is needed to make possible this study.

This paper serves as a foundational exploration of economic convergence in the Balkan region, offering valuable insights into the growth patterns of specific countries. Future research could expand on this work by including a more extensive set of countries or sub-regional analyses, contributing to a more comprehensive understanding of convergence dynamics in Southeast Europe.

The identified relationships between initial GDP, growth rates, and external factors like FDI have important policy implications. Future research could delve deeper into the specific policy interventions that catalyze convergence, providing governments and policymakers with targeted strategies to foster sustainable economic growth.

Exploring the evolution of convergence dynamics over longer time spans could provide insights into the sustainability of growth patterns. Future research might focus on predicting future convergence trends and identifying potential turning points or shifts in economic trajectories.

Comparative studies with other regions or groups of countries could enhance the generalizability of findings. Examining similarities or differences in convergence patterns between the Balkans and neighboring regions could provide a broader context for understanding economic development.

Future research could incorporate micro-level analyses, investigating the impact of convergence on individual households, industries, or sectors. This approach would offer a more nuanced perspective on the distributional effects of economic growth within countries.

This study offers some limitations. The reliance on macroeconomic data limits the granularity of the analysis. Future research could address this limitation by incorporating micro-level data to capture more detailed insights into the mechanisms driving convergence.

The use of a simplified regression model, while effective in identifying β-convergence, may overlook complex interactions among variables. Future research might consider more sophisticated econometric models that account for non-linear relationships or time-varying effects.

While the study acknowledges external factors like FDI, it does not delve deeply into causal relationships. Future research could employ advanced methodologies, such as instrumental variable analyses, to establish causality more rigorously and disentangle the intricate relationships between variables.

The study covers the period from 2000 to 2019, and while it provides a snapshot of convergence trends, it may not capture long-term structural changes. Future research could extend the time frame to assess the persistence of observed patterns and identify potential turning points.

The findings are specific to the Balkan countries, and caution should be exercised when generalizing them to other regions. Future research might explore the transferability of these insights to different geographic and economic contexts.

In conclusion, while this paper lays the groundwork for understanding economic convergence in the Balkans, future research holds the potential to build upon these findings, address limitations, and contribute to a more nuanced and comprehensive understanding of regional and global economic dynamics.

In conclusion, this paper offers an important contribution to enriching the literature focused in particular on economic development and the EU.

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