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The Impacts of COVID-19 as an External Socio-economic Factor in the Real Convergence of the Western Balkan States Toward the European Union

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Abstract

The Western Balkans have faced many challenges in the last two decades. Thus the path of socio-economic progress has not been easy at all. Continuous efforts over time in the arena were made to reduce the gap in the integration path toward the EU. Year 2019, with the COVID-19 pandemic, the European economy was placed in a new economic position. Unlike other known crises, dealing with such an unknown visa, social reactions, cultural conflicts, and the many restrictions that were imposed as a security measure affected the socio-economics of the EU states, questioning the degree of real convergence between the EU states and those of the Western Balkans. The purpose of this paper is to know the effect of the global and covid crisis on the convergence of the Western Balkan states as well as the convergence between the EU states.

Keywords: Western Balkan, Panel Data, Convergence, Covid 19, European Union

Introduction

The economic future of the region is the European Union, while the integration project of the Western Balkans towards the EU is recognized as the only alternative that ensures democratic transformation, and social and economic development of the region (Kukaj, 2023). The economic integration of the Western Balkan states ensures the so-called long-term peace in the region and gives another perspective on economic performance, market and competitiveness. The enlargement of the EU brings another regional dimension, in the creation of a regional economic zone, infrastructure and energy improvement, and the democratization of societies, it also gives a different direction to security in the region, with a proper orientation in the fight against organized crime. and above all ensuring the legal and democratic state.

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EU enlargement often seems to be analyzed from a political and legal point of view, although the economic parameters offer improvement in the standard of living starting from the offer of a safer market, and free movement of human capital, goods, and other services. Convergence in the meaning of the standard of living is a concept that measures the well-being of citizens in social, political, and economic terms (Licchetta & Mattozzi, 2022), this achievement in the standard of living is an essential indicator for European integration. Since convergence is also treated in political terms, many times speculations about divergence have generated various political tensions. This is especially true in cases where certain regions create the perception that they do not have any significant contribution to economic progress alongside groups of economically developed countries.

The Western Balkans has faced numerous challenges over time, namely, it has made continuous efforts to improve the economic arena to reduce the gap in the integration path. Dealing with the global world crisis of 2009 was the first economic blow it took which created a big gap in the European perspective. Meanwhile, one of the latest contemporary challenges that had a significant impact on the world economy was the COVID-19 pandemic, which began at the end of 2019, while the WHO announced the pandemic situation in March 2020 (Ciotti, 2020). The differences in the level of the gross domestic product compared to the average of the EU member states are the main indicator for the lack of economic and social convergence of these countries. Despite the continuous efforts of the Western Balkan states, the above-mentioned shocks have affected the loss of the pace of economic progress over the years in these states. According to Licchetta & Mattozzi (2022), the positions of southern and eastern countries have changed precisely because of the deterioration of the economic situation of these countries from the global crisis. While the northern countries in 1999 showed a higher level of income than the EU average, the southern and eastern countries had a lower result than the average, in terms of GDP. In the meantime, most of the eastern part has managed to transform politically compared to the EU average, while the northern and southern countries suffered deterioration as a result of the global crisis.

Our study focuses mainly on the economic performance of the Western Balkan states during this time as well as the European Union states. Accordingly, the effect of isolation measures adapted from the EMU as well as individual measures undertaken by each state is also described (Ahmed, Baig, & Hui, 2020). In the theoretical aspect, the effect of the COVID-19 pandemic on the policies undertaken by the European Monetary Union is briefly described. Social distancing as an initial measure to prevent the spread of the virus affects the reduction of economic activities translated into disruption of the supply chain up to the total closure of some economic sectors (Luisa & Puertas, 2021).

Study Objectives

The main objectives of the research:

- To identify the macroeconomic indicators that determine economic growth for the countries in which the study is conducted;
- The effect of economic and financial crises in the countries of the Western Balkans on the perspective towards the realization of Real Convergence.
- The effect of the Covid-19 crisis on increasing the disparity between incomes between EU and BP countries.

Research Questions

- Is there a correlation between economic growth and the degree of convergence?;
- What was the effect of global crises on the dynamics of Real Convergence?
- What is the function of the mastrite indicators in the degree of convergence of the Western Balkan states towards the EU?

Hypothesis

H1. The financial crisis of 2009 harmed the convergence process of the Western Balkan states in the EU.

Methodology and Study Approach

The countries participating in the study are the Western Balkans and the EU countries, grouped according to the periods of integration; candidate states and potential candidate states for EU membership, EU member states since 2004 EU11 (except Malta and Cyprus), the member states in the European Union before the accession of the ten EU15 candidate countries (on 1 May 2004) and the CEESEE transition states. The degree of convergence of the states of the Western Balkans and the European Union for the period 2000-2021 is measured, as well as through advanced econometric models, the effect of the global crisis and the last covid on the performance of the real convergence of the groups of states involved is measured in the study.

Since the data are provided for the period of the years, 2000-2021, a statistically significant period for analyzing real convergence, to more accurately test the effect of the 2007 crisis, the data are divided into two different groups, the first group from 2000-2008 presents the economic situation in the time before the crisis, and the second group 2009-2016 measures the effect of the crisis on the economic performance of the groups of countries included in the analysis. The models that will be used to analyze the data are Pooled OLS for the period 2000-2021, the Random-Effect Regression model that analyzes the period 2000-2021 as well and the OLS model that tests convergence in two separate periods before and after the global crisis of the year 2007. Since the crisis from COVID-19 covers the period 2019-2021, its effect will be analyzed together with the crisis of 2007, which means the period 2000-2021 will be analyzed.

Literature Review

The economic and social impact that resulted from COVID-19 causes divergence in GDP per capita in the EU member states as well as in the PB6 states. This divergence threatens the economic functioning of these countries, however, the quick actions and measures that were mobilized to prevent the spread of the virus in some countries made this economic stagnation not last long. Some of the states benefited from the recovery plan through the fund created in April 2020 which had a direct impact on mitigating the effect of the crisis. Real Convergence as a term describes the process or tendency of balancing real parameters in national economies and is measured through GDP per capita in PPP to the average GDP per capita in PPP of the EU. According to Mugurel (2023), this process essentially represents the reduction of structural imbalances that directly affect economic competition between states (Licchetta & Mattozzi, 2022). The convergence in the standard of living is fundamentally threatening the social and political well-being of citizens and is crucial in the process of European integration. If we approach the political aspect, speculations about convergence often arouse political tensions, especially in certain regions that perceive the situation as neglected, countries that neither serve economic progress nor profit from such a phenomenon.

Real convergence as a term highlights the economic development of countries aspiring to the European Union. According to Krstevska (2017), real convergence is considered to be a prerequisite for the optimal eurozone, in addition to this, the optimal zone also requires the achievement of Nominal Convergence, measured through macroeconomic indicators (inflation, exchange rate, interest rate, etc.). While this process for the Western Balkans is considered to be a slow process, many authors have carried out many studies that analyze the "catch up" rate of the Western Balkans region and the convergence deviations towards crises; the global one of 2007-2009 and the effects of the recent crisis from COVID-19. According to Dăianu (2017), the recent crises experienced in the eurozone indicate a lack of registration of real convergence, emphasizing that despite the term union, the individual political interest of the states of the European Union in crises is expressed before the common interest of the union.

Thus, analyzing the real convergence allows us to know the effect of crises in such communities and the effect of the decision-making unity of these communities.

According to the author, the austerity measures taken during the lockdown were one of the main effects of economic stagnation for these countries. The impact of the Covid pandemic was the last indicator that raised concerns about the divergence expressed in terms of GDP, which threatens the economic stability of the European Union. Licchetta & Mattozzi (2022) find that the crisis from covid 2019 harmed the convergence of GDP in the countries of the Eurozone as well as the EU, however, as a result of the rapid economic and health intervention, the impact was significantly lower than in the case of the global crisis.

According to Aursulesei (2023), the effect of the covid 19 crisis was felt across the surface of the European Union, according to him the only country which did not register a significant decline was Ireland. Bango (2023) in her analysis also included some aspects of the economic and structural journey of the EU during the last two decades. According to her, using the traditional methods of calculating convergence, beta, and sigma, I predict that in the future there will be an increase in GDP in the EU due to the funds that European countries have inherited from the effect of the COVID-19 pandemic.

Economic Growth global crisis and Covid-19 prospective

As can be seen in Figure 1, the growth of GDP per capita in the countries of the European Union has doubled since 2000. This growth trend found its first obstacle in the period of the global crisis of 2007-2009, from which a significant part of the economies recorded a drastic drop in GDP per capita. However, some of the countries that were considered to be more economically prepared for shocks, did not have major consequences from the crisis, from which they managed to recover the economic situation quickly.

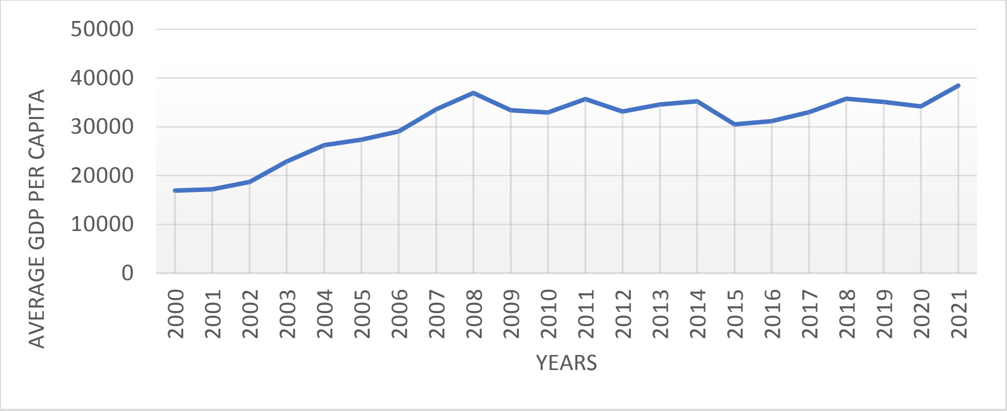

Figure 1. GDP (current US$) 2000-2021 EU27
Source: Author's calculations https://data.worldbank.org/

One of the main macroeconomic indicators that suffered from the global crisis of 2007 was price stability. It was the global crisis from the beginning of 2008 and 2009 that led to large price level fluctuations with particular emphasis on food and electricity which lasted until 2012. The average annual level of the inflation rate in the European Union after the fluctuations historical that it had in the 90s, in the period 2008-2012 it experienced the biggest fluctuations where in 2008 it reached the peak with an annual inflation rate of 4.2%. Theodoropoulou (2015) stated that the global crisis of 2008 resulted in a double recession for the EU states, of which the real economic growth was very low 0.1 from 2008-2014. The economic decline caused by COVID-19 was also reflected in the increase in the level of expenses, causing the governments' balance sheets to change drastically, as well as the excessive increase in public debt to cover these expenses.

According to Nowotny, Mooslechner, & Ritzberger-Grônwald (2013), balanced or sustainable growth means avoiding frequent fluctuations in the business cycle, which according to the authors are followed by significant economic costs. The year 2009 was the year that marked the turning point of the EU states after the crisis, until that period the lowest average rate of GDP per capita in the EU27 was recorded to take the turn of growth until 2019, the second shock that marks the economy after the presentation of the COVID-19 pandemic. Bakker & Klingen, claimed that the revival was marked by the return of the export rate in the European region, of which the GDP in 2010 recorded an increase of over 4%.

The new member states of the EU had a good performance in terms of economic growth in the years 2000-2007. According to Kolev (2012), this growth came as a result of large inflows and the integration of local businesses into the network of European markets. The EU consolidated in donating funds to support numerous projects that affected the improvement of infrastructure, business competitiveness, and other administrative investments, which strengthened the economic bases of the EU NMS states. Meanwhile, the financial crisis that began in August 2007 had a significant negative impact on capital flows in the NMS, which resulted in the stoppage of convergence, as a result of which countries with less economic development plunged deeper into the loss of jobs, especially for lower-skilled workforce.

The countries of the Western Balkans, alongside the developed countries of the world, have begun to recover from the crisis caused by the COVID-19 pandemic. The latest indicators from the data of the World Bank (2021) show that the Balkan economies are recovering faster than expected, and this mostly consists of the relaxation of the imposed measures and the increase in domestic demand. Just as we have seen the decrease in the level of GDP in the period of COVID-19, looking at the estimates for growth in the EU countries (opening of borders, increasing the price level, and stimulating the economy through exports) it is predicted that the economic growth of states BP will return in the following years to 5.9%. In general, the increase in wages, loans, remittances, and expectations for tourism are some of the factors that lead to the increase in consumption in all the countries of the Western Balkans, such as Albania, Bosnia, and Serbia. However, the same does not apply to Kosovo and Montenegro, for which they are constantly showing a decrease in the level of consumption.

CBK, reports that in Q3 of 2020, the Western Balkans suffered an economic decline of -8.5%. However, the highest economic decline was recorded in Q2, when BP suffered an economic decline of 12.2%. The highest economic decline was recorded in Montenegro a country that has a significant part of its economic activity dependent on tourism; followed by Kosovo, where the restrictive measures of the movement made it impossible to circulate between the diaspora and Kosovo, so this immediately reflected in the decline of its economic activity.

Meanwhile, in 2021 the Western Balkan States marked a positive turn in terms of economic activity, which is considered to have been driven by internal demand, the improvement of the situation with the COVID-19 pandemic, the removal of measures and fiscal and monetary policies in support of the economies. However, with the introduction of the Omicron variant, the strengthening of new restrictive measures, and the increase in the price of electricity, economic growth marked the next stagnation. Among the states of the region that recorded an increase in economic activity for 2021, in Q3, according to the CBK report, the highest growth was recorded by Montenegro and Kosovo. According to the IMF, the economic activity in the region increased by an average of 5.3% in 2021. The recovery of economic activity has also been largely influenced by financial support through the channels of funds from the EU and those structured by the states through credit channels in emergencies. In this sense, Kosovo ranks first in terms of budget support in the pandemic year 2020 with 12.7% of GDP, followed by Serbia with 5.6% of GDP, North Macedonia with 3.8%, while the lowest level of supporting the economy and individuals in this period, Montenegro and Bosnia scored 2.5%.

Empirical Results

The content of Table 3. consists of the regression result with its indicators including the p-value and the analytical conclusion whether or not the result shows us convergence with YES/NO based on the coefficient α1. The lack of convergence speaks of its opposite, i.e. it shows that the states are diverging over the years. Another important coefficient from the regression result is the speed of convergence of the countries included in the study in different dimensions, first for the entire period 2000-2021 then for the pre-crisis period (2000-2008 and post-crisis 2009-2016 period the same times to read the effect of the crisis for each group of countries in particular, which are presented under the second section of the results from the panel data approach. From the empirical results of the regression, we see that all countries for a relatively long period show on average the achievement of absolute β Convergence in all cases with a high significance at the 1% level. The regression result between the ratio of Beta Convergence (the logarithm of the data in a base year and the previous one) with the logarithm of the level of income for lag1, indicates a negative relationship that is consistent with the theory of convergence.

Table 1. Pooled OLS model results

Pooled OLS

Sample	BP6	BE11	BE15	BE27	CEESEE
Period	2000-21	2000-21	2000-21	2000-21	2000-21
β	-0.019	-0.020	-0.020	-0.013	-0.012
p value	0.000	0.000	0.000	0.000	0.000
Absolute β Convergence	yes**	yes**	yes**	yes**	yes**
Half-life	37	34	35	52	57
const	1.174	1.204	1.208	1.136	1.118
	0.000	0.000	0.000	0.000	0.000

obs	125	230	314	587	335

Source: Author's calculation

The empirical results (table 3) from the OLS regression showed Beta Convergence at a high level of significance for the period 2000-2021. Showing that economies converge to a common economic level. This is consistent with many authors who used the same Panel Data approach and the same OLS method. Ramajo, Marquez, & Geoffrey (2008) tested Beta Convergence for the relatively long period 1981-1996 through Pooled OLS, but failed to find absolute Beta Convergence for the countries studied, while they found evidence for conditional Beta Convergence. The same method was also used by Battisti & De Vaio (2008), who studied the convergence for European countries and failed to find absolute convergence, but only beta convergence in certain regions.

Table 2. Results of the Random-Effects Regression Model

Random-Effects GLS Regression

	BP6	BE11	BE15	BE27	CEESEE
β	-0.019	-0.02	-0.02	-0.013	-0.012
P – value	0.000	0.000	0.000	0.000	0.000
Half-life	36	35	35	53	58
_cons	1.202	1.204	1.208	1.136	1.118
	0.000	0.000	0.000	0.000	0.000
obs	125	230	314	587	335
Wald chi2(1)	13.71	30.34	38.92	46.23	23.91
Prob > chi2	0.000	0.000	0.000	0.000	0.000

Source: Author's calculation

The reason for using the Random Effect model is that the variability of the included subjects is thought to be random, and is not correlated with the predicted variables or with any other independent variable included in the econometric model (Greene, 2007). Mainly in the case when we are dealing with a dependent variable, the Random Effect model is used. This model is also known as the components of change model, or linear hierarchical model, from which it is assumed that data are processed and analyzed in line with hierarchies of different samples and that their differences are related to said hierarchy.

One of the favorable elements of this model is the possibility of including time-invariant variables, unlike the fixed model these variables are absorbed by the model itself. The main assumption in the use of random versus fixed effects is that the specific effects of countries (or units included in the model) are effects without changes for the given observation period. Table 4 contains the calculation results of the GLS method, which is considered to be better than the simple effects analysis of the Random model. From the empirical results, we see the existence of convergence in all groups of countries under study at a high level of significance.

Table 5 shows the results of the linear regression of Beta Convergence in the groups of countries included in the study in two different periods to test the effect of the global crisis that it had on each country. In this part, the first pre-crisis period is divided from 2000-2008, while the post-crisis period from 2009-2016, this period is divided into two parallel parts in terms of the number of years to have the most realistic measurements. The empirical results show absolute β Convergence in each of the periods, however, the degree of intensity of convergence has decreased based on the impact of the crisis. Looking at the empirical results in different periods between the countries, we see that in the Western Balkans before the global crisis the degree of convergence was -0.034, while after the crisis it changed to -0.016, this change is seen to have had an effect in the EU11 countries, while the same as in the Balkans also applies to the EU15 where we see a significant difference in the level of convergence from the pre-crisis to the post-crisis period.

Table 3. OLS results before and after the global crisis

OLS										
	BP		**BE11**		**BE15**		**BE27**		**CEESEE**	
	2000-08	**2009-16**	**2000-08**	**2009-16**	**2000-08**	**2009-16**	**2000-08**	**2009-16**	**2000-08**	**2009-16**
β convergence	-0.034	-0.016	-0.027	-0.023	-0.039	-0.012	-0.016	-0.010	-0.014	-0.007
	0.004	0.018	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.007
half-life	21	43	25	31	18	59	42	70	49	100
const	1.299	1.153	1.265	1.230	1.403	1.125	1.164	1.104	1.133	1.069
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
obs	53	71	98	131	134	179	251	335	143	191

Source: Author’s calculation

The greatest effect of the crisis is seen to be in the Balkan states and states in transition together with the Balkan states known as CEESEE (Table 5). While the effects are less seen to be present in EU27 countries. The presence of convergence in the period of the global crisis, but to a lower degree, is in accordance with the theory of Krstevska (2017), which has also tested the effects of Beta Convergence in the European Union states before and after the global crisis for the time period 2000 -2016. From the empirical results of the regression, we see that all countries for a relatively long period show on average the achievement of absolute β Convergence in all cases with a high significance at the 1% level. The regression result between the ratio of Beta Convergence (the logarithm of the data in a base year and the previous one) with the logarithm of the level of income for lag1, indicates a negative relationship that is consistent with the theory of convergence.

Conclusion

The main purpose of this study was to measure the level of convergence between Wb countries toward EU countries taking into consideration the global crisis of 2007 and the COVID-19 crisis as well. The empirical results of the regression indicate a negative relationship that is consistent with the theory of convergence. Showing that the economies of the groups of countries converge to a common economic level. As per Covid 19 effect, the greatest effect of the crisis is seen to be in the Balkan states and states in transition together with the Balkan states known as CEESEE. While the effects are less seen to be present in EU27 countries. From the empirical results of the regression, we see that all countries for a relatively long period show on average the achievement of absolute β Convergence in all cases with a high significance at the 1% level. The regression result between the ratio of Beta Convergence (the logarithm of the data in a base year and the previous one) with the logarithm of the level of income for lag1, indicates a negative relationship that is consistent with the theory of convergence. The economic and social impact that resulted from COVID-19 causes divergence in GDP per capita in the EU member states as well as in the PB6 states. This divergence threatened the economic functioning of these countries, however, the quick actions and measures that were mobilized to prevent the spread of the virus in some countries made this economic stagnation not last long. Some of the states benefited from the recovery plan through the fund created in April 2020 which had a direct impact on mitigating the effect of the crisis.

References

Krstevska, A. (2017). Real Convergence of Western Balkan Countries to European Union in view of Macroeconomic Policy Mix. *Journal of Central Banking Theory and Practice*, 187-202.

Rapacki, R., & Prochniak, M. (September 2009). Real beta and sigma convergence in 27 transition countries, 1990 –2005. *Post-Communist Economies*, 307–326.

Ramajo, J., Marquez, M. A., & Geoffrey, H. J. (2008). "Spatial heterogeneity and interregional spillovers in the European Union: Do cohesion policies encourage convergence across regions?. *European Economic Review*, 551-567.

Battisti, M., & De Vaio, G. (2008). "A spatially filtered mixture of β-convergence regressions for EU regions, 1980–2002.". *Empirical Economics*, 105-121.

Greene, W. (2007). "Fixed and random effects models for count data.". *Leonard N. Stern School of Business Paper*, 1547-3651.

Ciotti, M. (2020). *Ciotti, Marco, et al. "The COVID-19 pandemic." Critical reviews in clinical laboratory sciences 57.6.*

Ahmed, T., Baig, M., & Hui, J. (2020). *Coronavirus disease 2019 (COVID - 19) pandemic and economic impact.* Pakistan journal of medical science 36.

Luisa, M., & Puertas, R. (2021). *European countries vulnerability to COVID - 19: Multicriteria decision-making techniques.* Economic Research - Kononmska Istraživanja 34.

Mugurel, T. A. (2023). *The effect of the COVID-19 pandemic on real convergence of the European Monetary Union.* CES Working Papers.

Dăianu, D. (2017). *România și aderarea la zona euro: întrebarea este ÎN CE CONDIȚII.* European Institute of Romania.

Licchetta, M., & Mattozzi, G. (2022). *Convergence in GDP per capita in the euro area and the EU at the time of COVID-19.* Quarterly Report on the Euro Area .

Theodoropoulou, S. (2015). *How to avert the risk of deflation in Europe: rethinking the policy mix and European economic governance.* ETUI Research Paper-Policy Brief.

Nowotny, E., Mooslechner, P., & Ritzberger-Grônwald, D. (2013). *A New Model for Balanced Growth and Convergence - Achieving Economic Sustainability in CESEE Countries.* UK: Edward Elgar.

Bakker, M., & Klingen, C. (2012). *How Emerging Europe Came Through the 2008/09 Crisis An Account by the Staff of the IMF's European Department.* Washington: International Monetary Fund.

Kolev, A. (2012). The impact of the recession in 2008-2009 on EU regional convergence. *European Investment Bank*.

World Bank. (2021). *Western Balkans Regional Economic Report*,. Washington, DC: World Bank.

BQK. (18.03.2021). *Vlerësimi Tremujor i Zhvillimeve Markoekonomike (TM4 2020).* Prishtinë: BQK.

Krstevska, A. (27. December 2017). Real Convergence of Western Balkan Countries to European Union in view of Macroeconomic Policy Mix1. *Journal of Central Banking Theory and Practice, 2018*, 187-202.

Arellano, M., & Bond, S. (1991). "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations." . *The review of economic studies* , 277-297.

Janekalne, S. (2016). Beta and Sigma Convergence in EU28. *Karl-Franzens-Universität Graz*.

Barro, R. J., & Sala-i-Martin, X. (1992). Convergence. *Journal of Political Economy*, 223-251.

Robert J. Barro and Xavier Sala-i-Martin. (1990). Economic Growth and Convergence Across the United States. *National Bureau of Economic Research*.

Temple, J. (1999). "The new growth evidence.". *Journal of economic Literature*, 112-156.

Barro, R. J. (2016). Economic growth and convergence, applied especially to China. *National Bureau of Economic Research*.

Solow, R. M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 65–94.

Magdalena Morgese Bory, Éva Katalin Polgár and Andrei Zlate. (n.d.). *REAL CONVERGENCE AND THE DETERMINANTS OF GROWTH IN EU CANDIDATE AND POTENTIAL CANDIDATE COUNTRIES.* European Central Bank. Social Science Research Network.

Kočenda, E. (2001). "Macroeconomic convergence in transition countries.". *Journal of Comparative Economics*, 1-23.

Mankiw, G. N., David, R., & David, W. N. (1992). "A contribution to the empirics of economic growth.". *The quarterly journal of economics*, 407-437.

De la Fuente, A. (1997). "The empirics of growth and convergence: a selective review.". *Journal of Economic Dynamics and Control*, 23-73.

Aursulesei, T. M. (2023). *Aursulesei, T. M. (2023). The influence of the COVID-19 pandemic crisis on the real convergence of the member states of the European Monetary Union.* Junior Scientific Researcher, 9(1-2).

Bango, A. S. (2023). *European Economic Convergence in the 21st century. What can happen in the COVID19 crisis?*

Kukaj, D. (2023). Nominal and Real Convergence of European Union and Western Balkan Countries: A Panel Data Analysis. *International Journal of Economics & Business Administration (IJEBA)*, 69-84.