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BALKAN JOURNALS

Growth Without Equity: Evidence of Non-Inclusive Economic Growth in the Balkans

Ivana Beciragic

Abstract

In the context of ever-evolving economic insecurities that threaten the global economic well-being, and focusing on the implications for the Balkans, this paper aims to investigate the relationship between economic growth and poverty in this region. The paper covers the period from 2006 to 2021 for the following countries: Albania, Bulgaria, Greece, Croatia, North Macedonia, Montenegro, Romania, Serbia, Slovenia, and Kosovo. The research explores whether economic growth in the region has been inclusive by estimating bidirectional panel regression models. The results of the model show that GDP growth is associated with a rising income share of the poorest 20%. On the other hand, in the control model, when the variables' position is swapped, the income share of the poorest 20% seems to be associated with rising economic growth. To test the directional predictive power, the Granger test was introduced. The results from the Granger causality test show that the trend in economic growth truly predicts the trend of the income share of the poorest 20%. In contrast, the income share of the poorest does not Granger-cause GDP growth, suggesting that the relationship is unidirectional. The positive and statistically significant coefficient suggests that GDP growth does impact improving the income share of the poorest 20%, but the low value of the coefficient shows that this effect is relatively modest in magnitude. This means that growth alone contributes to inclusion, but not strongly or quickly enough to ensure equity. The observed relationship supports the idea of non-inclusive growth, where benefits do not automatically trickle down to the poorest.

Keywords: Inclusive Growth; Poverty; Granger Causality; Balkan Economies; Panel Data Analysis

Introduction

We live in times of global uncertainties. Still unable to reach pre-2008 levels of economic growth, the world experienced the pandemic crisis in 2020, which was followed by an energy crisis and an inflation crisis that was initially caused by the pandemic but later exacerbated by the war in Ukraine. At the time of writing this paper, the global trade system faces severe disruptions caused by the new tariffs imposed by the Trump administration. In addition to Trump's unpredictable policies that may significantly impact global supply chains and prices, we are on the brink of an AI transformation of markets, the economy, and society. It is difficult to imagine tomorrow's economy; some views are optimistic, emphasizing productivity gains and technological innovation, while others are even concerning, warning that the benefits of technology-driven growth may not be evenly distributed and could widen existing inequalities.

All this puts additional pressure on governments to adapt their policies towards improving the economic well-being of their citizens. The more the country has strong institutions and robust welfare systems, the easier it is to mitigate the shocks that may arise from these turbulent times. Unfortunately, both institutions and welfare systems in Balkan countries need improvements. This makes the countries from this region especially vulnerable to such external conditions, global demand shifts, instability from geopolitical aspects, etc. There is also the problem of uncertainty about their integration into the European Union. Another challenge is the gap in technology innovation and digitalization between the region and the developed economies. Having this in mind, we should ask the question of whether these countries could integrate into the new AI-driven world or if they will continue to lag behind, further deepening the inequality.

The reasons for the low inclusivity of economic growth in the Balkan countries are multidimensional. Firstly, the growth in these countries tends to be concentrated in a few specific sectors, such as construction, the financial sector, or telecommunications, that are capital-intensive, instead of labour-intensive. Naturally, the economic benefits end up with the owners of that capital, rather than the workers. At the same time, Balkan countries are characterized by weak redistribution systems, meaning that the trickle-down effect is lacking, i.e., the fruits of the growth do not trickle down to the poorer parts of the population. This is especially concerning given that a big portion of the GDP falls out to personal consumption, and a poor population makes for poor consumers and weak markets. When tax systems are not progressive, this additionally contributes to a limited fiscal space. Last but not

least, the region is also known for the brain-drain problem, which contributes to a lack of skills on the labour market, aging of the population, and general apathy about the future of the human capital.

Despite sharing these properties, the Balkans still remain an important case study for inclusive growth because it is a region of heterogeneity regarding both economic growth and income inequality. Also, some of the countries are EU members, while others are not.

This paper covers the period from 2006 to 2021 for the following countries: Albania, Bulgaria, Greece, Croatia, North Macedonia, Montenegro, Romania, Serbia, Slovenia, and Kosovo. We are using World Bank data and analyzing the relationship between indicators such as GDP growth (%) and income share held by the poorest 20% as a proxy.

Lack of available and harmonized data for this region poses methodological challenges and contributes to the small number of empirical studies. There is a difference in statistical coverage, and national statistical offices are not synchronized regarding their methodology in data collection and production. To avoid the "garbage in – garbage out" problem, we used harmonized data coming from the same database – that is, the World Bank Database available online. In the future, when data are available for longer periods of time, it would be useful to repeat this econometric exercise and compare its results.

To investigate this research question, bidirectional panel regression models are applied, and Granger causality tests are used to detect both the direction and strength of influence between growth and poverty. This evidence-based insight from the recent past should inform researchers and policymakers as they confront the welfare challenges that lie ahead.

Literature Review

Several studies have examined the inclusiveness of economic growth in the Western Balkans and broader European context. Mansi et al. (2020) employ a panel fixed effects model for EU and Western Balkan countries (2009–2018). They find that GDP per capita and income inequality are major drivers of poverty, with economic growth having a particularly strong influence in the Western Balkans due to their lower baseline levels of development. They argue that unemployment and governance factors, including corruption and administrative inefficiencies, play a crucial role in shaping poverty outcomes.

Panek and Zwierzchowski (2022) are using indicators such as PEGR (Poverty Equivalent Growth Rate) and RPPG (Rate of Pro-Poor Growth) to analyze whether economic growth in the Balkans has been pro-poor in the period from 2012 to 2017. They find that the Balkan countries differ in this respect, i.e., the growth is pro-poor in Croatia and Slovenia, but it does not support the most vulnerable in Bulgaria and Greece. This leads to the conclusion that periods of GDP expansion matter little to those countries that have persistent and structural inequality.

Banda et al. (2022) examine the impact of poverty and education on GDP across the Western Balkans, covering the period starting from the early nineties up to the pandemic crisis. Using panel data regression, they found a statistically significant and negative effect of poverty levels on growth. This indirectly suggests that high poverty can limit both productivity and the development of human capital. The results from this study accentuate the importance of educational reforms and higher redistribution.

Another study analyzes the impact of foreign direct investments on poverty outcomes in the Western Balkans. This is important because, for a long time, the public discourse recognized FDI as a driver of both growth and employment. This study by Topalli et al. (2021) showed that foreign direct investment reduces poverty in the Western Balkans through job creation, inflow of capital from foreign countries, and other types of spillovers in productive sectors. However, the study accentuates that these effects depend on the quality of the institutions in the host country, the level of corruption, and the flexibility of the labor market.

In addition, World Bank (2022) reports provide updated descriptive insights: while growth rebounded post-COVID, high inflation threatens poverty reduction trends. Labor shortages and wage-productivity gaps persist, suggesting structural challenges that go beyond short-term growth fluctuations.

Taken together, these studies demonstrate that growth has the potential to reduce poverty, but its impact is highly context-dependent. Growth is not sufficient on its own, especially in transition economies where structural inequalities limit the benefits of expansion. Redistribution systems in the Balkans often lag behind those in Western Europe, weakening the transmission mechanism through which growth should translate into rising living standards for vulnerable groups.

Author(s)	Year	Topic	Method	Key Findings
Mansi et al.	2020	Poverty and its drivers in the EU and Western Balkans (2009-2018)	Fixed effects panel regression; PGLS; descriptive analysis	Income inequality and GDP per capita significantly influence poverty in both regions. In WB, GDP per capita has a much stronger (negative) effect. Unemployment and governance are also key drivers. Education and investment are less consistently significant.
Panek & Zwierzchowski	2022	Pro-poor growth in 6 Balkan countries (2012–2017)	PEGR, PPGI, RPPG, stochastic dominance, EU-SILC panel data	Growth was pro-poor in Croatia, Romania, and Slovenia; non-pro-poor or mixed in Bulgaria, Greece, and Serbia. The effect depends on the poverty indicator (incidence, depth, severity). During recessions, inequality sometimes decreases, favoring the poor. Measures do not always give consistent results.
Banda et al.	2022	Impact of poverty and education on GDP in Western Balkans (1990–2020);	Panel data econometrics via EViews; FE model based on the Hausman test	Significant negative effect of poverty and positive effect of education on GDP. Also, unemployment and inequality negatively affect growth. Emphasizes the importance of quality education and context-specific policy design for the region.

Author(s)	Year	Topic	Method	Key Findings
Topalli et al.	2021	The effect of FDI on poverty in the Western Balkans	Panel data (2002–2021); Fixed Effects & Dynamic GMM estimation	FDI has a significant negative effect on poverty, meaning it contributes to poverty reduction. HDI, investment and economic freedom, labor participation, and remittances also reduce poverty. Corruption increases it. GMM results are consistent and robust across poverty headcount, poverty gap, and Gini index indicators.
World Bank	2022	Economic growth, labor, and poverty in the Western Balkans	Descriptive analysis with projections	Growth rebounded post-COVID, reaching 3.4% in 2022. Poverty declined slightly, but high inflation—especially in food and energy—threatens this trend. Without government intervention, the number of poor would increase sharply. Labor shortages and wage-productivity gaps persist.

Descriptive Analysis

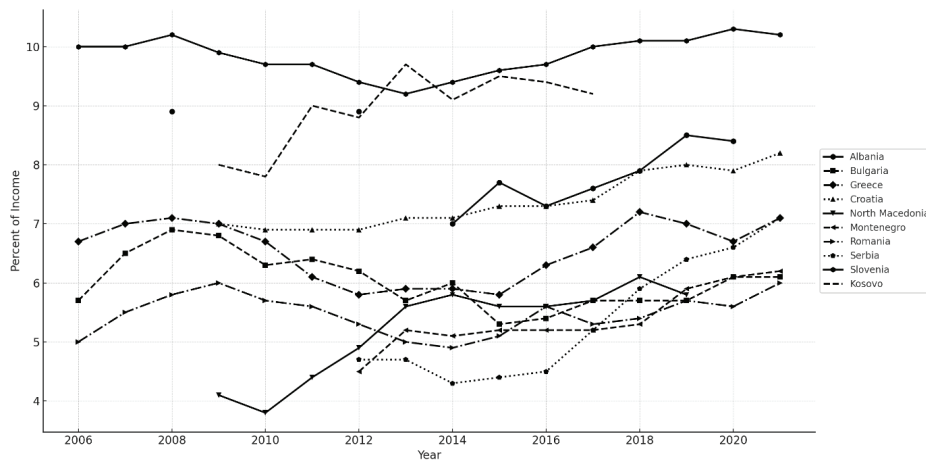
As a proxy for measuring poverty in the selected Balkan countries, the indicator income percentage of the poorest 20% of the population was used. The indicator is available in the World Bank's online database. Looking at Figure 1, it is noticeable that the income share held by the poorest 20% varies significantly between countries. Not surprisingly, Slovenia shows the highest percentage of 10.2% - a sign of effective redistribution. The lowest percentage of income held by the poorest

20% of the population is recorded in Romania at 6%, reflecting higher inequality. The regional average for the analyzed countries is 7.27%, with Serbia showing the strongest improvement over time, with a 2.5 percentage point increase.

These differences may result from variations in redistribution systems, different levels of social transfers, labor market structures, and demographic characteristics. Slovenia's success can be partially attributed to strong unions, a higher minimum wage, and a robust welfare model inherited from its Yugoslav past and aligned with EU standards.

Figure 1:

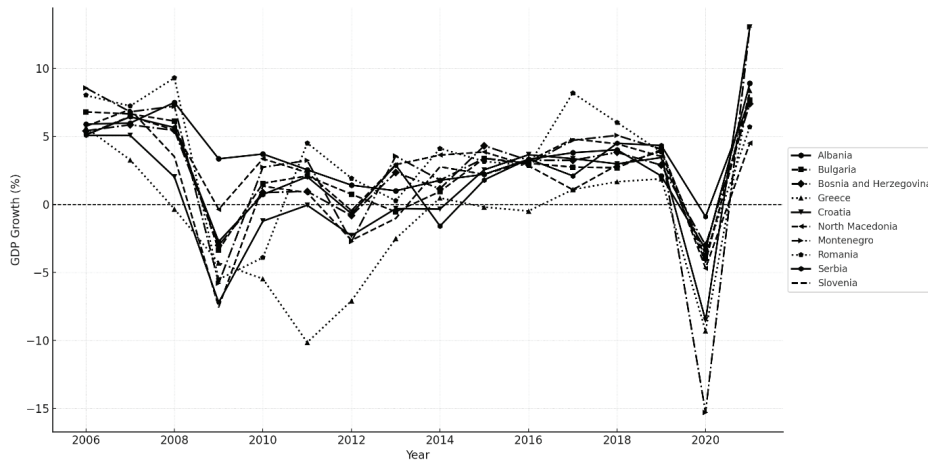
Income share held by the poorest 20% of the population (2006-2021)



Looking at GDP growth, the 2019 data, before the big disruption caused by the pandemic, shows a regional average of 3.52%, which is notably lower than pre-2006 levels. Kosovo had the highest growth at 4.76%, mostly driven by infrastructure and consumption. On the other hand, Greece had the lowest GDP growth at 1.88%, still recovering from its prolonged debt crisis.

Figure 2:

GDP growth in the Balkan countries (2006-2021)



Growth rates across the region are volatile and heavily influenced by external shocks. Countries like Albania and Montenegro rely heavily on tourism, which collapsed during the pandemic. Others, like North Macedonia and Serbia, depend significantly on external demand from the EU. GDP growth is generally weaker when comparing 2019 to pre-crisis 2006 levels. This slowdown reflects structural challenges such as low productivity, labor emigration, and slow adoption of technological innovation.

Methodology and Results

To test the research question "Is the economic growth inclusive in the Balkans – measured by its effects on the poorest population?", the model employed in this paper is the bidirectional panel regression model accompanied by a Granger causality test. The variables that were used were the following: 1) as a proxy for poverty – Income Share Held by Lowest 20% of the Population; 2) GDP growth (annual %). Both variables can be found online at the World Bank Database. It should be noted that some of the missing values for the income share held by the poorest 20% of the population have been interpolated. In our models, the variables were abbreviated as PVR and GDP, respectively.

To check the stationarity of the variables, an IPS unit root test (Im–Pesaran–Shin) was applied. The first difference was used for the PVR variable. Estimation of both fixed effect and random effects models followed, using the Hausman test. The results from the Hausman test showed that the random effects model is suitable.

In addition, standard errors were clustered at the country level to account for within-country serial correlation and heteroskedasticity. This allowed for a robust estimator.

The following two models were estimated:

Model 1: Poverty as the dependent variable

$$\Delta PVR_{it} = \alpha + \beta \cdot GDP_{it} + u_i + \varepsilon_{it}$$

Model 2: GDP growth as the dependent variable

$$GDP_{it} = \alpha + \beta \cdot \Delta PVR_{it} + u_i + \varepsilon_{it}$$

The reason behind testing the bidirectional model is to test if there is a mutual influence between GDP growth and poverty. This is crucial because economic growth might influence poverty levels, and poverty might in turn affect growth capacity (e.g., through labor productivity, education, etc.). Tables 1 and 2 show the results obtained for the models.

Table 1:

Results from Model 1

Variable	Coef.	Std. Err.	p-value	95% Confidence Interval
GDP	**0.0238**	0.0086	**0.005**	[0.0070, 0.0406]
_cons	0.0201	0.0382	0.599	[–0.0549, 0.0951]

Table 2:

Results from Model 2

Variable	Coef.	Std. Err.	p-value	95% Confidence Interval
dPVR	**2.680**	0.823	**0.001**	[1.067, 4.293]
_cons	2.253	0.268	0.000	[1.728, 2.777]

The results from model 1 show that a one percentage point increase in GDP growth is associated with a 0.0238 percentage point increase in the income share of the poorest 20% (PVR). This relationship is statistically significant at the 5% level (p = 0.005).

The results from model 2 show that a one percentage point increase in the income share of the poorest 20% is associated with a 2.68 percentage point increase in GDP growth, statistically significant at the 1% level (p = 0.001).

The results shown above indicate a bidirectional relationship between the variables, as expected. This is why we proceed to test the causality between the variables using the Granger causality test. The results are shown in Table 3.

Table 3:

Results from the Granger causality test

Equation	Excluded Variable	χ^2	p-value	Conclusion
PVR	GDP	6.369	0.012	Reject H_0 → GDP Granger-causes PVR
GDP	PVR	3.053	0.081	Do not reject H_0 → PVR does not Granger-cause GDP

The results from the Granger causality test show that GDP growth Granger-causes changes in PVR (p = 0.012), i.e., past values of GDP help predict changes in the income share of the poorest 20%. On the other hand, changes in PVR do not Granger-cause GDP (p = 0.081), i.e., past values of PVR do not predict GDP growth in a statistically significant way. The causal flow appears unidirectional: economic growth drives changes in income among the poorest, but not the other way around. In other words, poverty reduction alone doesn't fuel growth in this region (at least in the short term).

Despite these results, the desired effect of decreasing poverty levels with increased economic growth is missing. This can be explained by the low coefficient in Model 1 (0.02).

Conclusion

In order to test the relationship between economic growth and poverty in the Balkan countries and provide evidence-based conclusions about the level of inclusivity of the economic growth, this paper tested a bidirectional panel regression model. Using stationary variables and robust estimators, we have used the Hausman test, which indicated that the random effects model was adequate for the sample. The countries in the sample are the following: Albania, Bulgaria, Greece, Croatia, North Macedonia, Montenegro, Romania, Serbia, Slovenia, and Kosovo. The paper covers the period from 2006 to 2021.

The results from the panel regression models showed a bidirectional relationship between GDP growth and the income share held by the poorest 20% of the popula-

tion. The results from the Granger causality test showed a unidirectional causality, indicating that economic growth improves poverty outcomes. However, the coefficient of 0.02 suggests that, even though economic growth has a positive effect on poverty of 20%, that effect is very modest. Growth contributes to inclusion, but not strongly or quickly enough to ensure equity. The observed relationship supports the concept of non-inclusive growth, where the benefits of expansion do not automatically trickle down to the poorest.

GDP growth alone has not translated into greater equality. Structural reforms are therefore needed to make growth more inclusive. Countries should not only focus on expanding output but also on building resilience and strengthening redistribution mechanisms to protect vulnerable groups in times of crisis. Market forces alone do not guarantee equity. Redistribution and targeted public policies are essential. The results show that economic growth moves in the right direction, but the magnitude is insufficient. With the right interventions, however, the Balkans could unlock a more powerful and sustainable poverty-reducing effect.

Countries should not only focus on economic growth but also on building resilience and strengthening redistribution mechanisms to protect vulnerable groups in times of crisis and enable every citizen to contribute to economic development.

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