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FROM POVERTY TO PROSPERITY: THE POWER OF EDUCATION

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Abstract: *In the context of initiatives aimed at reducing the poverty risk rate, identifying the factors that contribute to this phenomenon is essential. Therefore, it is mandatory to develop and increase the accessibility in certain sectors, such as the educational and health sectors, it is mandatory to improve the governance and the reduction of corruption within public administration. From this perspective, this research aims to identify the variables which influence the at-risk-of-poverty rate and how it is influenced. The collected data from secondary sources and the panel type data model where used in order to carry out an empiric study of the EU member states, in two subsamples covering the period 2012–2023. The results of the study show that the at risk-of-poverty rate is influenced by a variety of factors, given its multidimensional nature. Whether confirming or rejecting the results of previous studies, this research provides additional evidence that helps fill various gaps in the existing literature.*

Keywords: *poverty, tertiary education, governance, corruption, European Union*

1. Introduction

The impact of poverty on society is a widely researched topic over time, but remains still relevant today, as this phenomenon significantly influences the allocation of resources and the collective development of society. Poverty does not discriminate and it is present in a variety of socio-economic contexts, which do not take into account a country's level of development. Nevertheless, the poverty phenomena are frequently more evident in emerging or developing countries, where factors such as socio-economic infrastructure, political instability, and low economic opportunities tend to negatively influence aspects regarding poverty.

Being a multidimensional phenomenon, poverty has both complex effects and deep roots. Economic inequality may represent both a cause and a consequence of poverty, as

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it can exacerbate social and economic disparities while undermining social cohesion. The limited access to health and educational services perpetuates the cycles of poverty, affecting the individual capacities and the career advancement opportunities. High corruption and weak governance are also factors that can amplify poverty by affecting the efficiency and equity of resource distribution and access to public services. The lack of transparency and limited accountability in managing public resources lead to an improper allocation of these resources and may increase socio-economic inequalities.

Moreover, poverty exerts a profound and multifaceted impact on both individual well-being and the overall functioning of society. Beyond limiting access to essential resources such as education, healthcare, and employment opportunities, poverty often generates feelings of social exclusion and marginalization, gradually eroding social cohesion and trust within communities. As a consequence, societies affected by high levels of poverty face not only humanitarian challenges but also significant economic and institutional costs. Poverty therefore represents a substantial burden for public finances, as it increases the need for social assistance programs and reduces overall productivity and social stability.

The objective of this study is to provide an empirical assessment of the effects that various factors, such as education, the perception of corruption, and governance, have on the at-risk-of-poverty rate in European Union countries.

The purpose of the paper is to identify and, in the future, to develop an appropriate panel data regression model aimed at evaluating the impact of corruption, governance, and education on the at-risk-of-poverty rate.

The specific research objectives are as follows:

• To present the main concepts of poverty and social assistance programs;

• To highlight the effects of certain socioeconomic phenomena on the risk of poverty, as reflected in the specialized literature;

• To analyse the relationship between the risk of poverty, corruption, and education;

This paper aims to assess the impact of different factors on the at-risk-of-poverty rate in the European Union. The countries of the European Union are divided into two subsamples according to the average GDP per capita level in 2022. The countries below the average are considered in an early phase of development, as it is possible that these countries became members of the European Union at a later stage. The dataset covers the period 2012–2023 to ensure a comprehensive and coherent overview. The variables considered in this research include the Governance Quality Index, Corruption Perception Index, Happiness Index, Gini Coefficient for income distribution, at-risk-of-poverty rate, percentage of the population with tertiary education, and GDP per capita.

This paper is organized as follows:

The introduction outlines the current state of research on the topic; the second section briefly reviews the relevant literature; the third section presents the methods used to assess the impact of education, corruption, and governance quality on the at-risk-of-poverty rate; the fourth section reports the main research findings; and the fifth section summarizes the key conclusions of the study.

2. Literature Review

2.1. Conceptual framework: Poverty and Social Assistance Programs

Poverty transcends the mere lack of financial means and reducing it to a simple economic indicator is misleading (Office of the High Comissioner, 2012). It rather represents a deep and complex reality that has become embedded in the social fabric of communities across different geographical areas and countries (Kholosah and Lestari, 2023). Poverty is a human experience, multidimensional, which affects not only access to basic goods and services but also the dignity and freedom of the individual who falls victim to this increasingly widespread social issue. The issue regarding poverty, inequality and social exclusion, cannot be solved exclusively through the elaboration and implementation of social policies (United Nations, 2008); this problem is a complex and large-scale phenomenon in some countries. There is a need for a global approach that goes beyond the limits of traditional social policy. The increase in income gaps and the deepening of poverty are still issues which the modern world is facing, and the appropriate solutions to these challenges confronting humanity must address their underlying causes, not merely the consequences they produce (Cyrek, 2019).

In spite of substantial efforts aimed at poverty reduction, the deep poverty rate, defined as the share of households with incomes below 50% of the poverty line, has not shown any notable decline (Moffitt and Garlow, 2018). However, poverty reduction programs have a significant impact on mortality rates associated with diseases such as diabetes and hypertension (Chapa, Ayala and Ramírez, 2022). Thus, it can be considered that these programs represent an important factor in improving the quality of life of the individuals concerned. The global community is making considerable efforts to eradicate poverty worldwide. Since 1990, a quarter of the world's population has emerged from extreme poverty, where people lived on less than $1.90 a day. This change has a positive impact regarding the socio-economic life of the population and their families, contributing to reducing infant mortality (World Vision, 2019). The idea of inclusive growth has become central in debates about development trajectories and poverty reduction (Desai, 2015).

Social assistance consists of the programs meant to reallocate the resources between the population, with the main goal to improve the individual well-being, the well-being of the families and of the society as a whole, adapted in order to satisfy the needs of the population (Esping-Andersen, 1990; Huang and Ku, 2011; Lu et al., 2013). Through continuous adaptation to the changing needs of society, social assistance aims to create an inclusive environment and to support individuals, families, and communities.

With regard to economic security programs, such as social insurance, food assistance, and housing support, these represent a short-term refuge from poverty and hardship (Trisi and Saenz, 2021).

Over the past half-century, these programs have reduced poverty for millions of people, especially for children, for whom the impact of poverty is more pronounced than for adults. The industrialized countries have developed sophisticated governmental programs, in order to reduce the financial consequences of the global events and to establish minimal living standards for poor families (Duncan et al., 1996).

Given the extent of this phenomenon, realized a series of policies were developed aimed at combating poverty, with resources being concentrated on poor populations and those considered most vulnerable (Lavallée et al., 2010). Moreover, the 2030 Agenda for Sustainable Development aims to end poverty in all its forms through a series of integrated social protection and development policies that promote an inclusive society in which every individual is included and supported (United Nations, 2015).

Poverty eradication through increasing the socio-economic well-being of the population also represents an integral part of the sustainable development of every nation (Padmakanthi, 2023). Even though a general appreciation of the importance of governmental programs has been noted, inequality within private economies has reduced the effectiveness of these programs in mitigating poverty (Trisi and Saenz, 2019).

2.2. Challenges and realities in poverty reduction

Technological progress and globalization are often seen as sources of happiness and economic development; however, this time, as progress advances, the social and economic landscape is becoming increasingly unequal (Cantillon, 2018).

An unfortunate reality observed within the context of poverty is that it does not depend on the level of economic development or the economic circumstances of the time; all welfare states continue to face challenges in preventing and combating poverty (Doorley et al., 2022).

Regarding issues such as poverty, inequality and social exclusion, these cannot, unfortunately, be solved solely through compensatory policies, given that these problems are very serious, affecting both today's society and future generations (d'Alpoim Guedes et al., 2013). Modern society is facing a disparity in wage growth, which represents yet another growing problem of the present. Even as poverty reduction methods are still being implemented, poverty continues to be exacerbated by conflicts, poor governance, climate change, and natural disasters. These additional factors worsen the already existing challenges, hindering the efforts to eradicate poverty, highlighting the complexity and persistence of these problems (Nkpoyen et al., 2021).

Kazeem argues that the sustainable development goals of the United Nations aiming to eradicate extreme poverty by 2030 are not feasible due to the poverty conditions in some of the countries (Kazeem, 2018).

The existence of extreme poverty in many developing countries represent a critical challenge which must be urgently addressed due to its adverse impact on human well-being (Ayoo, 2022). The Covid-19 pandemic has recently highlighted that the inadequate socio-economic conditions which contribute to the vulnerability of poor populations, can exacerbate poverty levels in various countries around the world, especially in the poorest ones (Pereira and Oliveira, 2020).

2.3. The multidimensional nature of the poverty

The multidimensional nature of poverty refers to the fact that poverty cannot be reduced in the absence of financial or material resources. Poverty is influenced by a wide

range of factors, including, but not limited to, those related to education, health, housing, access to basic services, and social inclusion. These factors, once intertwined are mutually influencing each other and creating a complex context for manifesting and developing poverty. Children are at a higher risk of living in poverty (Renwick and Fox, 2016). Poverty and vulnerability result from the interaction between personal characteristics and external circumstances (Devereux, 2002).

Most of the studies regarding the multidimensional nature of the poverty use the Multidimensional Poverty Index (MPI), proposed by the United Nations Development Programme (UNDP) and by the Oxford Poverty and Human Development Initiative (OPHI). MPI includes three dimensions of poverty include education, health, and living standards, with ten indicators used to measure the multidimensional poverty of a population. Poverty is multidimensional in nature, and its characteristics vary depending on local geographical, economic, and social factors, in addition to other common causes of poverty (Alkire and Foster, 2011).

Therefore, the social protection programs should be designed depending on the nature of the poverty and the main reasons of poverty in different geographical areas. The universal social protection system is not always effective in poverty eradication. Poverty, starting from this perspective has two central elements (Meyer and Lewin, 1986; Marx, Nolan and Olivera, 2015); firstly, poverty refers to the inability to participate fully in society, an inability that stems from inadequate resources. The majority of economic research relies on income as the primary criterion for identifying poor individuals.

2.4. Responsibility and commitment to poverty reduction

National governments have a crucial responsibility in ensuring the efficient allocation of the sustainable development budget (Cristóbal et al., 2021). Budget allocation should address both the population's immediate needs and future priorities to ensure long-term equitable and sustainable development. It is essential that these funds are allocated in a transparent and sustainable manner, for the benefit of society as a whole and to ensure a sustainable future for the next generations (Stoeffler and Joseph, 2020).

For social workers, the term poverty is classified according to the standards of the International Federation of Social Workers (IFSW) into different levels, such as extreme poverty, moderate or relative poverty, and social exclusion (Castel and Zecca, 1995). The fight against poverty cannot rely on a single measure. Reducing poverty requires enhancing individuals' skills and qualifications so they can access better employment opportunities. When this is paired with coherent social and labour policies, the impact of poverty on society can be significantly diminished. It is essential to concentrate on addressing the root causes of poverty rather than merely alleviating its symptoms (López Peláez, Aramendia-Muneta and Erro-Garcés, 2023).

3. Methodology and Data

The main purpose of this research paper is to analyse the causal relationship between the risk of poverty and income polarization, and factors such as the corruption index, the

quality of governance, the population's happiness level, the Gini index, the share of the total population with tertiary education, the share at risk of poverty, and, last but not least, GDP per capita. This set of indicators is composed of indicators that measure poverty and indicators that impact poverty (Gupta, Davoodi and Alonso-Terme, 1998; Negin, Rashid and Nikopour, 2010; Lewis, 2017; Abdulwasaa et al., 2024).

To conduct this empirical analysis examining the relationship between corruption and the risk of poverty, a panel dataset covering the period 2012–2023 was constructed. This time frame was selected as it represents the most extensive period for which statistical institutions have published data, with only minor exceptions for a few variables. The analysis focuses on the member states of the European Union over a 12-year period. Accordingly, the sample comprises the following EU countries: Belgium, Bulgaria, the Czech Republic, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, and Sweden.

The variables used in the models are outlined in the following table:

Variables, abbreviations, unit and source Table 1

Name of the variable	Unit of measure	Abbreviation	Source
At-poverty-risk rate	% of total population	poverty_risk	(Eurostat, 2025)
% of population with tertiary studies	% of total population	tert_ed	(Eurostat, 2025)
Corruption perception index	score between 0-10	corr_index	(Transparency International, 2025)
Happiness index	Score (0-10)	happy	(Helliwell et al., 2025)
Gini Index	Points	gini	(Eurostat, 2025)
GDP per Capita	euro/capita	gdp_capita	(Eurostat, 2025)

Source: Processed by authors

The governance quality index is a multidimensional index, composed within six different governance indicators with different shares, being used frequently within past research (Fukuyama, 2013; Liu et al., 2018; Poniatowicz, Dzieminanowicz and Kargol-Wasiluk, 2020). The index has values between [-2,5; 2,5] where -2.5 indicates a weak governance and 2.5 indicates a performant governance.

The World Happiness Index measures the level of happiness of a population based on certain factors that contribute to the well-being and standard of living of that population (Musikanski et al., 2017; Strotmann and Volkert, 2018). The Corruption Perception Index is measured globally through national agencies. Initially, this index had values ranging from 0 to 100; however, in 2012, it was changed to a scale from 1 to 10 to make it more intuitive and easier for the general public to understand, where 1 represents a highly corrupt state and 10 represents a clean state (Zouaoui, Al Qudah and Ben-Arab, 2017; Budsaratragoon and Jitmaneeroj, 2020).

The GINI Index is an income inequality distribution measure that reflects how evenly or unevenly income is shared among a country's population. A GINI value of 0 represents

perfect equality, where everyone has the same income, while a GINI value of 100 represents perfect inequality, where all the income is concentrated in the hands of a single individual or group.

Researchers and policymakers use the GINI Index to compare inequality levels between countries or to track changes over time within the same economy. A rising GINI coefficient suggests that income inequality is increasing, meaning the gap between the rich and the poor is widening. Conversely, a declining GINI coefficient indicates that income distribution is becoming more balanced (Han et al., 2016; Luptáčik and Nežinský, 2020). The at-risk-of-poverty rate is an indicator used to assess the proportion of the population that falls below the poverty threshold within a country. In this case, the rate represents the share of people whose equivalized disposable income is below the at-risk-of-poverty threshold, which is set at 60% of the national median equivalized disposable income after social transfers (Brady, Finnigan and Hübgen, 2017; Kwilinski, Vyshnevskyi and Dzwigol, 2020). This indicator is based on EU-SILC (statistics regarding income, social inclusion and living condition (Arora et al., 2015).

The tertiary education attainment rate measures the percentage of the total population that has completed post-secondary education, such as university degrees, master's programs, or doctoral studies. This rate reflects the share of individuals who have attained the mentioned levels of education. The indicator is highly significant, as according to the literature, a more educated population is associated with a lower risk of poverty, due to better labour market integration and higher income opportunities (Mihai, Ţiţan and Manea, 2015; Shimeles and Verdier-Chouchane, 2016). The last used indicator is GDP per capita, an indicator which measures the wealth of a nation. The higher this indicator, the higher the average income per capita in the respective country. Consequently, individuals are less exposed to the risk of poverty in countries with a higher Gross Domestic Product (GDP) per capita, compared to those with a lower GDP per capita level (Liddle, 2017; Miled and Rejeb, 2015; Škare and Prziklas Druzeta, 2016).

Descriptive statistics for EU-27 Table 2

Variable	Obs	Mean	Std. Dev.	Min	Max
risk_poverty	312	16.59455	3.858202	8.6	25.4
corr_index	324	63.7284	14.354	36	92
gov	297	0.994697	0.482875	0.052706	1.867374
happy	321	6.416857	0.747182	3.993021	7.88935
gini	313	29.75176	3.930168	20.9	40.8
tert_ed	297	28.65892	7.528518	13.5	46
gdp_capita	322	27,296.93	17,236.79	5390	86.690

Source: Processed by authors

The standard deviation measures how much the values of a variable deviate from its mean. In other words, it shows the degree of variability within a dataset. It is an essential statistical indicator, as it provides insights into the consistency and dispersion of data; a

higher standard deviation indicates greater variability, while a lower one suggests that the values are closer to the mean. Regarding the GDP per capita, this variable has the highest standard deviation with a value of 17,236.79. Such a high value in the case of this variable highlights the heteroskedasticity that the countries included in the research have regarding their economic development. The country with the highest positive deviation from the mean gdp_capita is Luxembourg (which, in 2021, recorded the highest value in this dataset, amounting to €86,690 per capita), followed by Ireland and Denmark. At the opposite end of the spectrum are several Central and Eastern European countries—such as Bulgaria, Romania, Latvia, and Poland—which reported significantly lower values for this indicator. The standard deviation of the Corruption Perception Index among the analysed countries is also highly significant. With a standard deviation of 14.35, populations in Nordic countries such as Denmark, Finland, and Sweden perceive their governments as the cleanest among the countries included in the analysis. In contrast, citizens of countries such as Greece, Bulgaria, Italy, and Romania believe their governments are more corrupt, these nations recording the lowest scores in terms of corruption perception.

Another noteworthy standard deviation is found in the case of the tertiary education attainment rate, which stands at 7.53 percentage points. The pattern observed earlier is maintained for this variable as well, with Luxembourg showing the highest positive deviation, as 46% of its population has completed tertiary education, followed by Ireland and Cyprus. Conversely, Romania is positioned at the opposite end, with only 13.5% of its population having completed tertiary studies.

Regarding the overall governance indicator, it shows a less significant variation, with a standard deviation of 0.48. The highest positive value of this indicator is observed in Finland (1.87/2.5), followed by other Nordic countries such as Sweden and Denmark. At the lower end of the spectrum are Bulgaria, Romania, and Greece, which have historically faced challenges related to governance quality and high levels of corruption.

To facilitate a better understanding of the discrepancy between highly developed countries and those still developing, the sample was divided into two subsamples, based on the average GDP per capita for 2022, which amounted to €27,033 per capita across the analysed countries. Thus, the two subsamples were formed as follows:

Sample I, representing the countries above the average, includes Austria, Belgium, Cyprus, Germany, Denmark, Estonia, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, and Sweden.

Sample II, representing the countries below the average, includes Bulgaria, Czechia, Greece, Spain, Croatia, Hungary, Lithuania, Latvia, Malta, Poland, Portugal, Romania, Slovenia, and Slovakia.

Figures 1 and 2 illustrate the rescaled scatter plots for the at-risk-of-poverty rate and the share of population with tertiary education out of the total population, respectively.

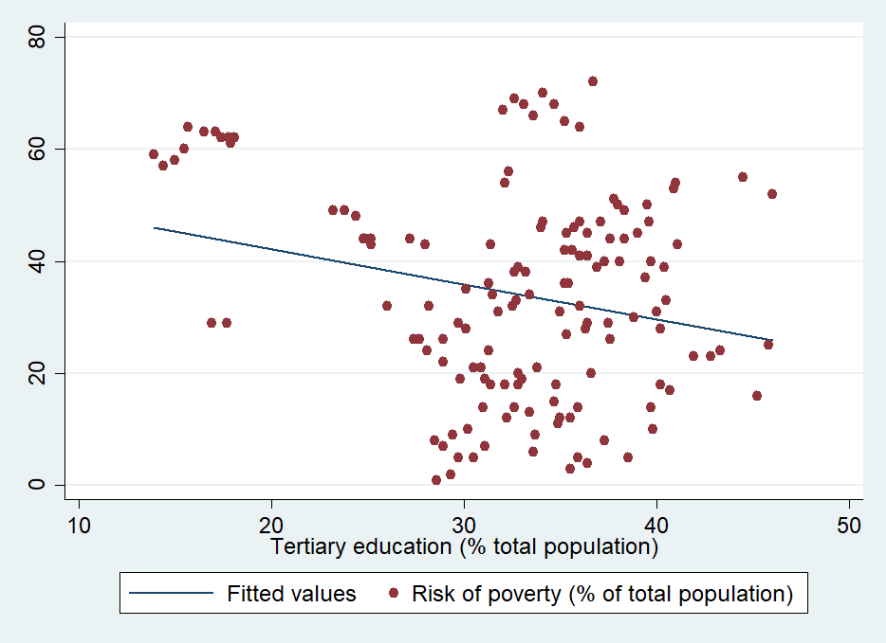

Fig. 1. *Rescaled scatter plot for the risk of poverty (% of total population) and tertiary education (% of total population) for Sample I.*

Source: Author's own processing using STATA software.

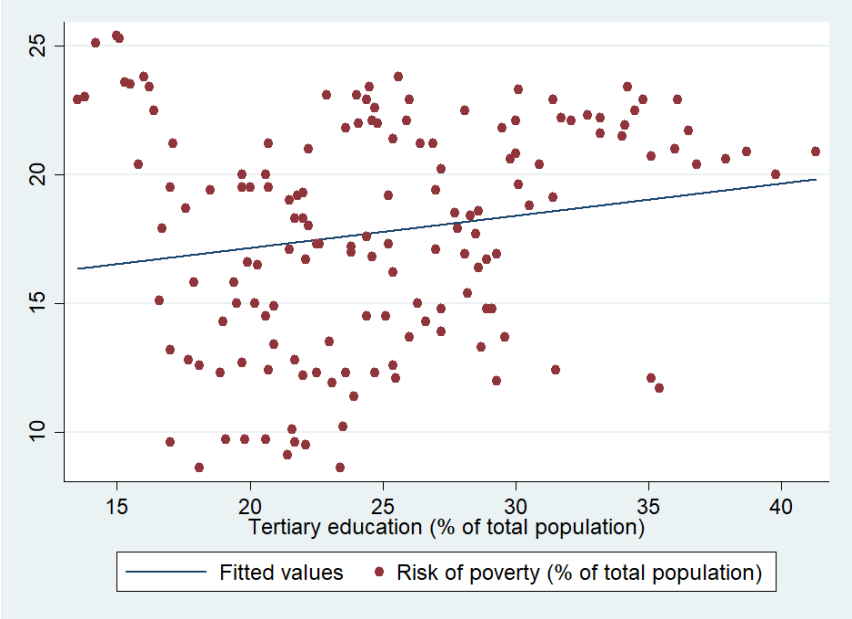

Fig. 2. *Rescaled scatter plot for the risk of poverty (% of total population) and tertiary education (% of total population) for Sample I.*

Source: Author's own processing using STATA software.

On average, during the analysed period, specifically 2012–2023, the percentage of the population with tertiary education in the European Union (EU-27) was 28.66% among individuals aged 15 to 64. The European countries that recorded the lowest average levels in the population with tertiary education during this period were Romania, Italy, and Croatia. At the opposite end of the spectrum were Ireland, Luxembourg, and Cyprus.

The lowest value of the variable was observed in Romania in 2012, where only 13.5% of the population aged 15–64 had completed tertiary education. Throughout the analysed period, most countries showed an upward trend in the share of the population aged 15–64 with tertiary education, with Luxembourg recording the highest value during this time, 46% of the total population in that age group having attained tertiary education.

Regarding the risk of poverty rate, the rankings are the opposite of those for participation in tertiary education. Thus, the highest values are recorded in countries such as Romania, Bulgaria, and Latvia, while at the opposite end Nordic countries can be found like Finland and Denmark, as well as the unexpected position of the Czech Republic, given that its GDP per capita is below the European average. This represents an initial indication that the risk of poverty is not necessarily linked to GDP per capita.

As can be seen in the graphs, the evolution of tertiary education affects wealthier and poorer countries differently. In the case of the first group of countries, there is an inverse relationship between tertiary education and poverty risk, meaning that as the level of education increases, the share of the population at risk of poverty decreases. This may be explained by the fact that in these countries, the educational infrastructure is already of high quality, and therefore the required investments in education are lower compared to those needed in the second group of countries.

As observed in the graph, the second group of countries exhibits a directly proportional relationship during the analysed period, the higher the tertiary education levels, the higher the recorded poverty risk. This is likely due to the very low current levels of tertiary education among the population, combined with a high degree of poverty risk overall.

Thus, the individuals who manage to participate in the educational process are generally those already outside the risk of poverty, as people facing poverty often lack the means or opportunities to pursue tertiary education. This may be due, for instance, to factors such as low levels of urbanization or large distances from tertiary education centre's corresponding to ISCED levels 5–8. It is likely that if education in these countries were to follow a sustained upward trend, the impact of tertiary education would eventually change direction, beginning to reduce the risk of poverty even in countries where the GDP per capita remains below the European average

4. Results and Discussions

The panel data analysis conducted for the period 2012–2023 across the 27 member states of the European Union revealed significant disparities between countries with a high GDP per capita and those with levels below the European average. These structural differences were also reflected in the manner in which the analysed variables influence the at-risk-of-poverty rate.

The division of the countries into two groups, one consisting of states with a GDP per capita above the European average (Sample I) and the other comprising states with a GDP per capita below the European average (Sample II) has revealed distinct patterns in developed economies and in the developing economies. For the countries in Sample I, where the economic infrastructure, educational systems, and quality of governance are more developed, the relationships identified between the variables are generally inversely proportional, particularly between the level of education and the risk of poverty. In other words, as the share of the population with tertiary education increases, the risk of poverty decreases.

This relationship confirms the idea that a more educated population has better access to employment opportunities and higher income levels, which contributes to reducing economic vulnerabilities. In contrast, for the countries in Sample II, the observed relationship between the tertiary education and the poverty risk is weaker or direct proportional. This can be explained by the fact that, in these economies, access to higher education is still limited, and the population at risk of poverty faces difficulties in accessing tertiary education programs due to economic, geographic, and institutional constraints. In fact, the low level of education is both a cause and a consequence of poverty. The indicators regarding the quality of governance and the perception of the corruption have highlighted notable differences between the analysed states.

Northern European countries such as Finland, Denmark, and Sweden consistently achieve the highest scores in governance quality and corruption perception indexes. They are widely regarded as nations with strong institutions, effective rule of law, and a high degree of transparency in their decision-making processes. These countries are in fact the ones with the lowest levels of poverty. At the opposite pole, countries as Bulgaria, Romania, Greece or Italy are achieving lower scores in governance quality and corruption perception. The analysis suggests a strong link between institutional inefficiency and the persistence of poverty, caused by the unequal distribution of resources and the poor implementation of public policies. Therefore, reducing corruption and improving governance quality are key factors in lowering the risk of poverty, as confirmed by the trends observed in the analysed sample. Countries with high levels of governance tend to allocate public resources more efficiently, support social investments, and foster economic and social cohesion.

The Gini coefficient, which measures income inequality, shows clear differences among European countries. Higher values of this indicator in Eastern and Southern Europe indicate a pronounced polarization of incomes, which evidently contributes to an increased risk of poverty. In contrast, Northern and Central European states display lower inequality levels, which promote lower levels of social exclusion. The degree of happiness among the population, although subjective in nature, was also higher in countries with a more equitable income distribution and effective governance. This confirms the hypothesis that subjective well-being is closely related to economic and social stability, and not merely to the average income of the population.

Gross Domestic Product per capita shows the highest standard deviation among the analysed variables, reflecting major disparities between the economies of the European Union. For instance, Luxembourg, Ireland, and Denmark rank at very high levels, while

Romania, Bulgaria, and Latvia are at the lower end of the scale. This difference highlights the heterogeneous nature of European economic development.

However, the comparative analysis revealed that the level of GDP per capita alone does not fully explain the risk of poverty. There are countries such as the Czech Republic which, despite being below the European average in terms of GDP per capita, record a low level of poverty risk due to effective governance and a well-consolidated social system. This confirms that economic development must be accompanied by coherent, transparent, and inclusive public policies in order to produce tangible effects in poverty reduction.

5. Conclusions

This research aimed to analyse the complex and multidimensional relationship between education, governance quality and at-risk-of poverty rate across European Union member states between 2012 and 2023. By dividing the sample into two subsamples based on GDP per capita, the study sought to highlight structural differences between highly developed and developing economies within the EU and to identify the key determinants of poverty risk reduction.

The results confirm that poverty is not merely a consequence of low income, but a multidimensional phenomenon influenced by institutional, socio-economic and educational factors. Among the most significant findings, the analysis revealed that higher levels of education, particularly tertiary education attainment, are strongly associated with lower poverty risk in countries with well-developed economies and effective governance systems. In these nations, education acts as both a preventive and corrective factor, promoting higher employment opportunities, better wages, and stronger social mobility.

Conversely, in countries with a GDP per capita below the European average, the relationship between tertiary education and poverty is weaker or even directly proportional. This result suggests that in less developed economies, the benefits of education are limited by structural constraints such as labour market inefficiencies, regional disparities, and restricted access to quality education. Thus, in such contexts, education alone is insufficient to reduce poverty without parallel reforms in governance, institutional integrity, and public investment.

The analysis also confirms that good governance and reduced corruption are essential determinants of poverty reduction. Countries characterized by high institutional quality, transparency, and accountability, such as the Nordic states, consistently show lower poverty rates. In contrast, high corruption levels and weak governance, prevalent in several Southern and Eastern European countries, exacerbate income inequality and hinder the effectiveness of socio-economic policies. These findings emphasize the necessity of strengthening institutional frameworks through improving governance efficiency as preconditions for achieving inclusive and sustainable development.

Income inequality, measured through the Gini coefficient, remains a key explanatory variable for poverty disparities across the EU. A higher degree of income polarization is strongly associated with increased poverty risk, underlining the need for redistributive policies which promotes fairness and equal access to opportunities. Additionally, the analysis highlights that subjective well-being, reflected in the Happiness Index, tends to

be higher in societies that combine equitable income distribution with strong governance, suggesting that social cohesion and trust play a vital role in poverty reduction.

Finally, while GDP per capita remains a central indicator of economic prosperity, it does not fully capture the variations in poverty levels among EU member states. Therefore, economic growth must be accompanied by institutional and educational reforms that ensure equitable resource distribution and enhance social inclusion.

In conclusion, this research reinforces the fact that education is a powerful driver of prosperity, but its impact is conditioned by the broader institutional environment. Sustainable poverty reduction in the European Union requires an integrated approach, combining investments in education and skills development with improved governance, strengthened institutional integrity, and effective anti-corruption measures. By addressing both the economic and structural dimensions of poverty, EU member states can foster a more resilient, inclusive, and prosperous society.

References

Abdulwasaa, M.A. et al. 2024. Statistical and computational analysis for corruption and poverty model using Caputo-type fractional differential equations. *Heliyon*, 10(3), p. e25440. Available at: https://doi.org/10.1016/j.heliyon.2024.e25440.

Alkire, S. and Foster, J. 2011. Counting and multidimensional poverty measurement," *Journal of Public Economics*, 95(7–8), pp. 476–487. Available at: https://doi.org/10.1016/j.jpubeco.2010.11.006.

Arora, V.S. et al. 2015. Data Resource Profile: The European Union Statistics on Income and Living Conditions (EU-SILC). *International Journal of Epidemiology*, 44(2), pp. 451–461. Available at: https://doi.org/10.1093/ije/dyv069.

Ayoo, C. 2022. Poverty Reduction Strategies in Developing Countries. In: P. de Salvo and M.V. Piñeiro (eds.), *Rural Development – Education, Sustainability, Multifunctionality*. Rijeka: IntechOpen. Available at: https://doi.org/10.5772/intechopen.101472.

Brady, D., Finnigan, R.M. and Hübgen, S. 2017. Rethinking the Risks of Poverty: A Framework for Analyzing Prevalences and Penalties. *American Journal of Sociology*, 123(3), pp. 740–786. Available at: https://doi.org/10.1086/693678.

Budsaratragoon, P. and Jitmaneeroj, B. 2020. A critique on the Corruption Perceptions Index: An interdisciplinary approach. *Socio-Economic Planning Sciences*, 70, p. 100768. Available at: https://doi.org/10.1016/j.seps.2019.100768.

Cantillon, B. 2018. *Social Security and Poverty Reduction in Rich Welfare States: Cracks in the Post War Policy Paradigm, Avenues for the Future*. Antwerpen: Herman Deleeck Centre for Social Policy.

Castel, R. and Zecca, M. 1995. Les métamorphoses de la question sociale. *Agora débats/jeunesses*, 2(1), pp. 97–102. Available at: https://doi.org/ 10.3406/agora.1995.1517.

Chapa, J., Ayala, E. and Ramírez, N. 2022. Impact of Mexico's social programs on poverty. *Investigación Económica*, 81(320), p. 35. Available at: https://doi.org/10.22201/fe.01851667p.2022.320.81156.

Cristóbal, J. et al. 2021. Unraveling the links between public spending and Sustainable

Development Goals: Insights from data envelopment analysis. *Science of The Total Environment*, 786, p. 147459. Available at: https://doi.org/10.1016/j.scitotenv.2021.147459.

Cyrek, M. 2019. Government social spending in the EU countries: efficiency in poverty and income inequality reduction. *Equilibrium*. *Quarterly Journal of Economics and Economic Policy*, 14(3), pp. 405–424. Available at: https://doi.org/10.24136/eq.2019.019.

d'Alpoim Guedes, J. et al. 2013. Is Poverty in Our Genes?," *Current Anthropology*, 54(1), pp. 71–79. Available at: https://doi.org/10.1086/669034.

Desai, R.M. 2015. Social Policy and the Elimination of Extreme Poverty. In: L. Chandy, K. Hiroshi, and K. Homi (eds.), *The Last Mile in Ending Extreme Poverty*, 1st ed., pp. 301–327. Brookings Institution Press,

Devereux, S. 2002. Can Social Safety Nets Reduce Chronic Poverty? *Development Policy Review*, 20(5), pp. 657–675. Available at: https://doi.org/10.1111/1467-7679.00194.

Doorley, K. et al. 2022. *Headline Poverty Target Reduction in Ireland and the Role of Work and Social Welfare.* Dublin, Ireland. Available at: https://doi.org/10.26504/bkmnext424.

Duncan, G. et al. 1996. Poverty and Social Assistance Dynamics in the United States, Canada, and Europe. In: K. McFate, R. Lawson, and W.J. Wilson (eds.), *Poverty, inequality and the future of social policy*, pp. 67–108. United States: Russell Sage Foundation.

Eurostat. 2025. *Database*. Available at: https://ec.europa.eu/eurostat/data/database (Accessed: 4 August 2025).

Esping-Andersen, G. 1990. *The three worlds of welfare capitalism*. John Wiley & Sons.

Fukuyama, F. 2013. What Is Governance? *Governance*, 26(3), pp. 347–368. Available at: https://doi.org/10.1111/gove.12035.

Gupta, S., Davoodi, H., & Alonso-Terme, R. (1998). Does Corruption Affect Income Inequality and Poverty? (Issue 98/76). https://doi.org/10.5089/9781451849844.001

Han, J. et al. 2016. Using Gini coefficient to determining optimal cluster reporting sizes for spatial scan statistics. *International Journal of Health Geographics*, 15(1), p. 27. Available at: https://doi.org/10.1186/s12942-016-0056-6.

Helliwell, J.F., Layard, R., Sachs, J.D., De Neve, J.-E., Aknin, L.B. and Wang, S. (eds). 2025. *World Happiness Report 2025.* University of Oxford: Wellbeing Research Centre.

Huang, C. and Ku, Y. 2011. Effectiveness of Social Welfare Programmes in East Asia: A Case Study of Taiwan. *Social Policy & Administration*, 45(7), pp. 733–751. Available at: https://doi.org/10.1111/j.1467-9515.2011.00794.x.

Kazeem, Y. (2018). Nigeria Has Become the Poverty Capital of the World. Quartz Africa. https://qz.com/africa/1313380/nigerias-has-the-highest-rate-of-extreme-poverty-globally

Kholosah, S. and Lestari, A. 2023. Evaluation of the Effectiveness of Social Welfare Programs in Reducing Poverty Levels. *Jurnal Manajemen, Ekonomi dan Akuntansi (Management, Economics and Accounting*), 1(1), pp. 13–18.

Kwilinski, A., Vyshnevskyi, O. and Dzwigol, H. 2020. Digitalization of the EU Economies and People at Risk of Poverty or Social Exclusion. *Journal of Risk and Financial Management*, 13(7), p. 142. Available at: https://doi.org/10.3390/jrfm13070142.

Lavallée, E. et al. 2010. *Poverty alleviation policy targeting: a review of experiences in developing countries.* Paris: Dauphine Université.

Lewis, J. (2017) "Social impacts of corruption upon community resilience and poverty," Jàmbá: Journal of Disaster Risk Studies, 9(1). Available at: https://doi.org/10.4102/jamba.v9i1.391.

Liddle, B. 2017. Urbanization and Inequality/Poverty. *Urban Science*, 1(4), p. 35. Available at: https://doi.org/10.3390/urbansci1040035.

Liu, J. et al. 2018. The Effect of Governance Quality on Economic Growth: Based on China's Provincial Panel Data," Economies, 6(4), p. 56. Available at: https://doi.org/10.3390/economies6040056.

López Peláez, A., Aramendia-Muneta, M.E. and Erro-Garcés, A. 2023. Poverty, social work, and social intervention: decent work as a strategy to overcome poverty after the Covid-19. *Journal of Social Work Practice*, 37(2), pp. 213–229. Available at: https://doi.org/10.1080/02650533.2023.2214309.

Lu, S. et al. 2013. Effectiveness of social welfare programmes on poverty reduction and income inequality in China. *Journal of Asian Public Policy*, 6(3), pp. 277–291. Available at: https://doi.org/10.1080/17516234.2013.850226.

Luptáčik, M. and Nežinský, E. 2020. Measuring income inequalities beyond the Gini coefficient. *Central European Journal of Operations Research*, 28(2), pp. 561–578. Available at: https://doi.org/10.1007/s10100-019-00662-9.

Marx, I., Nolan, B. and Olivera, J. 2015. The Welfare State and Antipoverty Policy in Rich Countries. *Handbook of Income Distribution,* vol. 2, pp. 2063-2139. Elsevier. Available at: https://doi.org/10.1016/B978-0-444-59429-7.00024-8.

Meyer, J.A. and Lewin, M.E. 1986. Poverty and social welfare: an agenda for change. *Inquiry: a journal of medical care organization, provision and financing*, 23(2), pp. 122–133.

Mihai, M., Ţiţan, E. and Manea, D. 2015. Education and Poverty. *Procedia Economics and Finance*, 32, pp. 855–860. Available at: https://doi.org/10.1016/S2212-5671(15)01532-4.

Miled, K.B.H. and Rejeb, J.-E. Ben. 2015. Microfinance and Poverty Reduction: A Review and Synthesis of Empirical Evidence. *Procedia - Social and Behavioral Sciences,* 195, pp. 705–712. Available at: https://doi.org/10.1016/j.sbspro.2015.06.339.

Moffitt, R. and Garlow, S. 2018. Did Welfare Reform Increase Employment and Reduce Poverty? *Stanford Center on Poverty and Inequality*.

Musikanski, L. et al. 2017. Happiness Index Methodology. *Journal of Social Change*, 9(1). Available at: https://doi.org/10.5590/JOSC.2017.09.1.02.

Negin, V., Rashid, Z. and Nikopour, H. 2010. *The Causal Relationship between Corruption and Poverty: A Panel Data Analysis*. University Library of Munich, Germany, MPRA Paper

Nkpoyen, F. et al. 2021. Social welfare program and poverty eradication in sub-saharan region of Eket Senatorial district, Akwa Ibom State, Nigeria. *Revista Amazonia Investiga*, 10(42), pp. 163–175. Available at: https://doi.org/10.34069/AI/2021.42.06.15.

Office of the High Comissioner. 2012. *Guiding Principles on Extreme Poverty and Human Rights.*

Padmakanthi, N.P.D. 2023. Sustainable Way to Eradicate Poverty through Social Protection: The Case of Sri Lanka. *Social Sciences,* 12(7), p. 384. Available at: https://doi.org/10.3390/socsci12070384.

Pereira, M. and Oliveira, A.M. 2020. Poverty and food insecurity may increase as the threat of COVID-19 spreads. *Public Health Nutrition*, 23(17), pp. 3236–3240. Available at: https://doi.org/10.1017/S1368980020003493.

Poniatowicz, M., Dzieminanowicz, R. and Kargol-Wasiluk, A. 2020. Good governance and institutional quality of public sector: theoretical and empirical implications. *European Research Studies Journal*, 23(2), pp. 529–556.

Renwick, T. and Fox, L. 2016. *The Supplemental Poverty Measure: 2015 Current Population Reports*.

Shimeles, A. and Verdier-Chouchane, A. 2016. The Key Role of Education in Reducing Poverty in South Sudan. *African Development Review*, 28(S2), pp. 162–176. Available at: https://doi.org/10.1111/1467-8268.12199.

Škare, M. and Pržiklas Družeta, R. 2016. Poverty and Economic Growth: A review. *Technological and Economic Development of Economy*, 22(1), pp. 156–175. Available at: https://doi.org/10.3846/20294913.2015.1125965.

Stoeffler, S.W. and Joseph, R. 2020. Poverty and Social Justice: The Building Stones of Social Work Identity. *Journal of Poverty*, 24(4), pp. 284–299. Available at: https://doi.org/10.1080/10875549.2019.1695700.

Strotmann, H. and Volkert, J. 2018. Multidimensional Poverty Index and Happiness. *Journal of Happiness Studies*, 19(1), pp. 167–189. Available at: https://doi.org/10.1007/s10902-016-9807-0.

Transparency International. 2025. *Corruption Perceptions Index 2024*. Available at: https://www.transparency.org/en/cpi/2024 (Accessed: 4 August 2025).

Trisi, D., & Saenz, M. (2018). Economic Security Programs Cut Poverty Nearly in Half Over Last 50 Years. https://www.cbpp.org/sites/default/files/atoms/files/9-14-18pov.pdf

Trisi, D. and Saenz, M. 2021. Economic Security Programs Reduce Overall Poverty, Racial and Ethnic Inequities: Stronger Policies Needed to Make Further Progress.

United Nations. 2008. *Defeating poverty through social inclusion.*

United Nations. 2015. *Policy integration in government in pursuit of the sustainable development goals.*

World Vision. 2019. *Global poverty: facts, FAQS and how to help.*

Zouaoui, A., Al Qudah, A. and Ben-Arab, M. 2017. World Corruption Perception Index Analysis. *Research Journal of Finance and Accounting*, 8(24).