

REDUCING INEQUALITY AS A VECTOR FOR SUSTAINABLE DEVELOPMENT: AN ANALYSIS OF SUSTAINABLE DEVELOPMENT OBJECTIVE 10 IN THE EUROPEAN UNION

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Abstract: *This study aims to explore the literature on the realization of Goal 10, "Reduced inequality" of Agenda 30, and the extent to which reducing inequality contributes to sustainable development in 27 countries in Europe. The methodology used to achieve the proposed goal consists of observation, comparison, scientific reading. Multiple regression method was used to analyze the statistical data. It was determined that the independent variable is the GINI coefficient. For a rigorous substantiation, the study is supported in parallel by Pearson coefficient calculation and scatter plot. The results show that income inequality has a significant effect on carbon dioxide emissions in Europe and that there is an inversely proportional relationship between the level of GDP and income distribution. In its approach, the research provides useful information that can help inform policy decisions on pollution abatement measures in line with the level of income inequality. This research can serve as a springboard for tackling other areas of exploration to provide answers and solutions to sustainable development issues.*

Key words: *GPDPPS - Gross domestic product per capita, POV - Poverty rate, GINI - income distribution indicator*

1. Introduction

In capitalist economies, capital accumulation is the result of economic activities carried out by individuals in an economic cycle. The dimensions of inequality can be wide-ranging, but the focus of this article concentrates on income inequality.

This study analyzes the impact of income inequality (GINI) on sustainable development in the EU through three indicators: gross domestic product/capita(GDP/capita) poverty rate and CO₂ emissions. The analyzed elements try to explain whether income inequality in most countries in Europe have any influence on the level of poverty, living standards and the level of atmospheric emissions. The theories studied emphasize that poverty reduction and the promotion of fair wage policies are essential for sustainable development, but weak trade unions and technological change exacerbate economic disparities. Inefficient management of financial resources by governments leads to major inequalities between countries, while current fiscal measures fail to ensure a decent living for all. Studies show that capitalist inequality affects health and life expectancy, and genetic homogeneity could influence the fair distribution of income.

The aim of the article is to demonstrate the influence of income inequality on sustainable development. In this context, sustainable development is described with the help of three indicators: GDP, Poverty rate and Carbon emissions.

The structure of the study starts with abstract, abbreviations, theoretical framework, hypotheses and methodology, data analysis, presentation of results, discussion and conclusions.

The study aims to analyze how the parametric indicator GINI, influences sustainable development. The chosen research method is econometric. The multiple regression econometric analysis uses the GINI coefficient of 27 European countries as independent variable. The dependent variables on the change in this coefficient are GDP per capita, the poverty rate and the level of carbon dioxide emissions. Determining how inequality of income distribution affects the level of sustainable development is an important issue as today's society tries to return to economic stability before the coronavirus pandemic, the military war in Ukraine and the current political fluctuations around the world. This topic has been analyzed for the period 2016-2024, since at the beginning of 2016, the

Sustainable Development Goals were transformed into Agenda 30, which also introduced the goal No. 10 on reducing inequality. The scientific assumptions underlying the framework were based on the idea that Agenda 30 promotes a reduction in the poverty rate by up to 40% and the establishment of wage equity. In an inflationary context, the measures set by governments have also targeted various aspects of the income level of the population, such as raising the minimum wage, increasing taxes and charges and eliminating tax breaks for various categories of staff. The instruments through which sustainable development objectives could be supported and achieved should take into account changes in population income.

The results of the research show that income distribution does not significantly influence the poverty rate or the standard of living. Interestingly, income distribution has a significant impact on the level of CO₂ emissions. Sustained sustainable development and income equity require a balance between economic, social and environmental dimensions.

2. Basic content

Capitalism enables anyone who owns assets to multiply their value. Since ancient times, ownership of assets such as land has separated people into social classes. After the technological revolutions, industrial and technical plants have given people a new chance to rise up the socio-economic ladder. The use, maintenance, repair and control of assets required the emergence of new categories of assets such as know-how and stocks. Of course, the acquisition of stocks requires the holding of capital. Thus, the possibility of personal financial development that capitalism generated was the provision of knowledge-based services.

Social classes were further divided as wealth, i.e. capital accumulation, spread to those who did not own fixed assets. As a result of this economic system, income inequality spread faster and faster. Natural resources are the basis of transactions in capitalist markets. As a result, in 2000, the Millennium Declaration was signed which set 8 Sustainable Development Goals (MDG Report 2012, f.a.). Initially, those goals did not cover the issue of income inequality. In 2015, the Sustainable Development Goals were revised under Agenda 30 and new goals were added to form a continuous and effective economic, social and environmental cycle. One of the novelties brought by Agenda 30 was the realization that globally there is a problem of proportionality in the accumulation of income and that for sustainable development it is necessary to analyze and discover mechanisms that lead to an equalization of income. Equalization will be achieved gradually by reducing poverty rates by up to 40% within countries and promoting fair wage policies (Agenda 30). The need to reduce income inequality while reducing energy consumption is a priority to ensure a decent living for all (Millward-Hopkins & Oswald, 2023).

It can be observed that in order to achieve the goals set, human needs must be prioritized. Normality is given by the fact that no person can turn his or her attention to higher problems if basic needs are not met. Most of the income that the population attracts is wage income. In order to achieve the Sustainable Development Goals, it is paramount to thoroughly analyze the fundamentals of establishing them, having legal and social effects (Barford et al., 2025). Harmonizing the Sustainable Development Goals with the current economic reality could be one of the important issues that the European institutions could address. One of the problems in our society today is that the depletion of resources coincides with the increase in wealth by those who have managed to become rich. Wages have become insufficient to enable people to be rich. In this way, the crises of capital will become even more acute the more it accumulates and the more difficult it will be for it to meet the needs and demands of humanity (Roberts, 2020)

The reality of the century we live in outlines the need to create a sustainable financial existence for all the people of the globe. Capitalism has increased the rush for resources which has created a substantial financial imbalance in the chain of masses. The income of the population is largely derived from wage income.

One explanation could be the idea that labor unions are becoming less and less resounding which has led to a reduction in the possibilities for advantageous wage bargaining by employees (Hein, 2015). This has also been supported by other researchers who have presented the union as the most important factor influencing the wage level irrespective of the type of economy (Rueda & Pontusson, 2000). Technological developments also influence the level of income in that depending on the level of development at which the state is at, the accumulation of resources increases or decreases (Wu et al., 2024). However, this evolution only emphasizes certain social classes, it is a response of high demands. (Greenhalgh, 2005) Categorized as a system, capitalism has at its core, the financial resource. The way financial resources are managed at the governmental level determines majorly the level of inequality among states (Movahed, 2023). Thus, Nordic countries such as Sweden are among the leading countries in terms of economic freedom (Ydstedt & Zitelmann, 2025). The dynamics of human actions create environments and spaces in which it is difficult to combine sustainable development processes and create both competition and technological evolution. Even if there are fiscal measures that attempt to reduce the negative effects of capitalism, such as setting a minimum wage in economically developed areas, these wages will not be able to support daily living, and the labor force will be forced to migrate to areas where it can ensure its long-term development. For sustainable economic development, the state institutions could intervene with more effective measures to increase competition but at the same time provide the possibility of a decent living for the entire population. Capitalist inequality has been shown to have a negative impact on life expectancy and infant mortality. In line with the first Sustainable Development Goals, capitalism, through its effects, is a hindrance to achieving the highest possible sustainable development outcomes (Stevenson, 1982). All the levels that lead civilization towards evolution require equivalent factors in order not to generate imbalances. Human quality could be based on genetics. Thus, the more the evolutionary factors are genetically similar, the more development has a linear movement on all levels. Genetic homogeneity influences the level of trust between individuals and hence income equality (Kilinc & Kilinc, 2024). The need to change the capitalist system into a system based on sustainable development objectives has become increasingly real due to economic sectors that provide uncompetitive and insufficient wages for a decent living. Prioritization of profit margins through various methods, including the reduction of wage expenditures, have led to significant slippages between social classes. (Mesarić, 2010) The literature brings to attention that without sustained involvement of all actors on the economic scene, the sustainable development goals cannot be fully realized, because in the capitalist system, the core is capital, not man. Achieving Sustainable Development Goal 10, requires radical reform of the money circuit as well as the transformation of countries' debts into foreign aid (Bieri & Bader, 2023). An important component through which to adjust income inequality is the sustainable development component, the state of the environment. The gradual multiplication of climate change effects are difficult to manage. The severity of the climate situation can be measured by the response time, which results in increasing long-term economic costs. The lack of concrete measures aimed at reducing the negative effects of climate change may have an irreversible impact on the economy, especially in poor countries. The use of resources for climate recovery raises the question of prioritizing one's own needs in violent climate change scenarios. Prevention through pro-active measures is more effective in the long term than managing the effects. Climate change acts over a longer period of time and its effects are reflected gradually (Manzanedo, R. D., & Manning, P. (2020). In the case of generating crisis or climate hardship situations, phasing of public funds can be an important element in maintaining and reducing negative climate impacts. Identifying the real problems and setting up specially earmarked credit lines could be a pro-active solution to combat natural disasters. This could be done on the basis of the periodicity of the occurrence of the phenomena, the extent to which the effects affect society and the scale of the effects. By 2050, the European Union aims to reach 2% of GDP and implement rules on green government investments. Climate change issues could be dealt with in terms of budget deficits and carbon tax regulations that would reduce the burden on public budgets (Darvas, Z., & Wolff, G. (2021). Relaxing

public budgets and thus reducing inequality could be achieved by stricter carbon regulation measures and a reduction in the tax burden on companies that spend on green investments.

Political and ideological factors contribute to global climate change. Given that the effects of climate change are short-lived, people tend to focus less on these issues (Egan, P. J., & Mullin, M. (2017).

Carbon emissions are an important factor influencing the state of the global climate. At European level, public spending on environmental protection should be correlated with the level of development. In countries such as Romania and Poland, revenues from environmental taxes and environmental protection expenditures have the greatest influence on carbon emissions (Labenko, O., Sadauskis, A., & Lyman, V. (2024). In this context, this research adds value to the literature on the subject. The novelty of this study lies in the integrated approach to the three dimensions of sustainable development - economic (GDP/capita), social (poverty rate) and environmental (CO₂ emissions) - in relation to a single key explanatory factor, namely income inequality, measured by the GINI coefficient.

Unlike much previous research that separately analyzes the relationship between inequality and either poverty, economic growth or pollutant emissions, this study:

- Simultaneously integrates the three perspectives into a common analytical framework, allowing a comparative understanding of how inequality affects each dimension of sustainability;
- Uses recent data (2016-2024) and covers all 27 EU countries, which provides an up-to-date basis for analyzing the impact of Goal 10 of the 2030 Agenda;
- Highlights a significant correlation between inequality and CO₂ emissions, an issue rarely addressed in the European literature, providing a concrete argument for linking green transition policies with social equity policies.

Therefore, the study adds value to the literature by highlighting income inequality as a factor with not only social and economic, but also environmental impacts, an aspect that remains insufficiently explored in previous research.

The study will attempt to answer the question - Under Objective 10, "Reduced inequalities", European countries have adopted various policies to balance the income of the population leading to a reduction in the differences between social classes. Hypothesis set

H1: Income inequality influences sustainable development in Europe, as measured by poverty rate, GDP/capita and CO₂ emissions.

The study will present a comparison between the GINI indicator(the degree of inequality of disposable income of a population and the three dimensions of sustainable development. The economic dimension will be characterized by the GDP indicator, the social dimension by the poverty rate and the environmental dimension by carbon dioxide emissions.

In order to obtain the results, observational, scientific, comparative and historical reading methods will be used in combination with econometric methods such as multiple regression, Pearson correlation coefficient and scatter plot. Data were collected from the Eurostat database and processed using E-views. Data collected from Eurostat database were generated for the period 2016-2024 for 27 countries in Europe (Eurostat,2025). For a better exemplification, the averages of GINI, GDPPPS, POV and CO₂ indicators at the European level were calculated and scored as follows:

- X1 - GINI indicator at European level for the period 2016-2024;
- Y1 - European poverty rate for the period 2016-2024;
- Y2 - GDP at European level for the period 2016-2024;
- Y3 - European per capita gas emissions for the period 2016- 2024

The values of the data collected, transformed and processed for 27 countries in Europe are as shown in Table 1.

Table 1. Level of indicators at European level between 2016 and 2024

ANI	X1	Y1	Y2	Y3
2016	5.18	8627.33	84.75	2.26
2017	5.1	897.3	85.19	2.28
2018	4.99	9252.37	85.56	2.24
2019	4.9	9611	85.5	2.15
2020	4.84	10071.3	86.94	1.94
2021	4.75	10441.85	88.03	2.05
2022	4.67	10997.59	88.28	2.01
2023	4.69	111640.4	87.13	1.87
2024	2.55	8442.89	87.38	1.78

Source: processing by the author

After data collection and processing, the data were entered into the E-views program in order to perform multiple regression econometric analysis, supported by Pearson correlation coefficient and scatter plot calculations. In this analysis, the independent variable is income distribution and the dependent variables are poverty rate, GDP per capita and carbon dioxide emissions per capita. The units of measurement were as follows: - Poverty rate - average income/capita- reported in euro currency.

Gini indicator - population/year

GDP - gross domestic product/capita

Level of emissions of CO₂- tons/capita/year

Performing multiple regression involved calculating the links between X1 and Y1, X1 and Y2, X1 and Y3.

Calculation of the intensity between X1 and Y1 by the multiple regression method (Table. 2)

Table 2. Regression analysis between the poverty rate and the income distribution 2016-2024

Dependent Variable: Y1
 Method: Least Squares
 Date: 04/14/25 Time: 18:01
 Sample: 2016 2024
 Included observations: 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16343.87	76471.64	0.213725	0.8369
X1	789.2298	16301.83	0.048414	0.9627
R-squared	0.000335	Mean dependent var		19998.01
Adjusted R-squared	-0.142475	S.D. dependent var		34496.76
S.E. of regression	36872.41	Akaike info criterion		24.06145
Sum squared resid	9.52E+09	Schwarz criterion		24.10527
Log likelihood	-106.2765	Hannan-Quinn criter.		23.96687
F-statistic	0.002344	Durbin-Watson stat		2.160430
Prob(F-statistic)	0.962739			

Source: processing by the author

The model constructed is of the form $Y1 = \beta_0 + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \epsilon$. Given that the probability that the income distribution significantly influences the poverty rate is 0.9627 and is greater than 0.05, and that the R-squared indicator is 0.000335 shows that the variation in the poverty rate is explained by income inequality by 0.03% which means that it is statistically irrelevant. The Durbin-Watson test values explain a good correlation of the data.

The correlation of data in a linear relationship was done by calculating Pearson coefficient to test the relationship between poverty rate and Gini indicator. The following results were obtained:

Table 3. Linear relationship between income distribution and poverty rate

Covariance Analysis: Ordinary
Date: 04/14/25 Time: 18:08
Sample: 2016 2024
Included observations: 9

Correlation	Y1	X1
Y1	1.000000	
X1	0.018296	1.000000

Source: processing by the author

A coefficient of 0.018 may indicate that, in this particular case, income inequality and poverty are not directly and linearly related in Europe. Calculation of the intensity of the link between X1 and Y2 using the multiple regression method (Table 4)

Table 4. Regression analysis between GDP per capita and income distribution in the period 2016-2024

Dependent Variable: Y2
Method: Least Squares
Date: 04/14/25 Time: 18:09
Sample: 2016 2024
Included observations: 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	89.81586	2.593972	34.62484	0.0000
X1	-0.709930	0.552970	-1.283849	0.2401
R-squared	0.190590	Mean dependent var		86.52889
Adjusted R-squared	0.074959	S.D. dependent var		1.300427
S.E. of regression	1.250738	Akaike info criterion		3.478475
Sum squared resid	10.95042	Schwarz criterion		3.522303
Log likelihood	-13.65314	Hannan-Quinn criter.		3.383895
F-statistic	1.648270	Durbin-Watson stat		0.565403
Prob(F-statistic)	0.240054			

Source: processing by the author

The changes in the structure and size of GDP per capita produced by the income distribution are not statistically significant because the level of the prob index is 0.2. The change in GDP is explained by income inequality by 19.05% which does not imply a relevant impact so that we can say so. To emphasize the existence or non-existence of a linear relationship between the way income is distributed and GDP per capita, the Pearson coefficient is calculated in table 5.

Table 5. Linear relationship between income distribution and GDP per capita

Covariance Analysis: Ordinary
Date: 04/14/25 Time: 18:11
Sample: 2016 2024
Included observations: 9

Correlation	X1	Y2
X1	1.000000	
Y2	-0.436566	1.000000

Source: processing by the author

Since the coefficient is negative (-0.46), there is an inverse relationship between the two variables. In other words, as GDP increases, income inequality tends to decrease. In order to confirm the existence of this inverse relationship, a graphical expression was created using the scatter plot as shown in Figure 6.

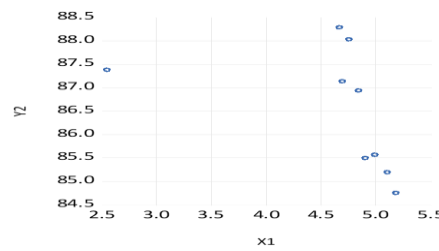


Figure 6. Scatter plot of the inverse relationship between income distribution and GDP per capita

Source: processing by the author

The graph shows that changes in GDP per capita tend to decrease when there is a positive trend in the gap between rich and poor. However, the collinearity of the points on the graph is not perfect, which indicates and supports the fact that there is no direct link between the standard of living expressed by GDP and income inequality.

Calculation of the intensity of the link between X1 and Y3 using the multiple regression method
 (Table. 7)

Table 7. Linear link between income distribution and CO2 emissions.

Dependent Variable: Y3				
Method: Least Squares				
Date: 04/14/25 Time: 18:14				
Sample: 2016 2024				
Included observations: 9				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.299626	0.272247	4.773698	0.0020
X1	0.165188	0.058036	2.846285	0.0248
R-squared	0.536465	Mean dependent var		2.064444
Adjusted R-squared	0.470246	S.D. dependent var		0.180355
S.E. of regression	0.131270	Akaike info criterion		-1.029995
Sum squared resid	0.120622	Schwarz criterion		-0.986168
Log likelihood	6.634980	Hannan-Quinn criter.		-1.124575
F-statistic	8.101336	Durbin-Watson stat		1.272888
Prob(F-statistic)	0.024820			

Source: processing by the author

The change in the income distribution produces statistically significant changes in the body of carbon dioxide emissions, given the prob index of 0.0248 and r-square, which describes the magnitude of the impact as 53.64%.

The Pearson collinearity coefficient was also checked, which has the following results presented in Table 8.

Table 8. Linear relationship between income distribution and CO2 emissions

Covariance Analysis: Ordinary		
Date: 04/14/25 Time: 18:15		
Sample: 2016 2024		
Included observations: 9		
Correlation	X1	Y3
X1	1.000000	
Y3	0.732438	1.000000

Source: processing by the author

A value of 0.73 does not prove a direct causal relationship between the two variables but suggests a strong relationship between them.

3. Conclusions

The premises of this research were that the way income is distributed in most European countries under the capitalist system has affected the poverty rate, the standard of living, characterised by GDP and the level of carbon dioxide emissions. The sustainable development materialised by the three dimensions presented in the introduction, linked to the principles in which incomes are constructed and received by the population is partially affected. Analysing the interactions between the GINI indicator and the poverty rate in Europe, we found that poverty could be significantly influenced by other components such as the health of the population, the education system, the number of jobs, which offers a new horizon for future research. The level of social transfers as well as fiscal and budgetary policies can play an important role in modifying the poverty rate as they are an important tool in maintaining the financial balance between social classes. In a context of volatile economic growth, incomes increase proportionally, the poverty rate follows the same pattern. Concluding from the above results, it can be concluded that income distribution does not have a statistically significant impact on the poverty rate in Europe. By its definition, GDP per capita reflects the sum total of quantities produced divided by the number of inhabitants. On the basis of the analyses carried out, no direct link between income distribution and GDP has been found to suggest that a change in this parameter could reduce income inequality. Factors such as investment, access to international markets, technological innovation could be more significant indicators in increasing or reducing GDP at European level. The concentration of financial resources at the top of the social pyramid does not bring major changes, as long as they invest and stimulate the economy. However, the results suggest that a broader analysis, even at the local level, could help to better understand this phenomenon of decreasing income inequality.

This study has highlighted that in European countries where income inequality is high, there are slowdowns in sustainable development. One possible explanation for these results could be that high income earners use their financial resources to purchase polluting goods and services. Oversized dwellings, frequent travelling, buying more cars than necessary could support the above. Another argument could be that, in the absence of sufficient financial resources, people turn to polluting sources of survival, such as wood heating. In addition to the fact that people with limited access to financial resources may use polluting sources to ensure their survival, access to green energy is more limited for them.

The transition to green energy sources could include more effective policies to tackle inequalities in order to maximise sustainable development. Investments in infrastructure could reduce the level of CO₂ emissions by enabling people to stop using personal cars. The legislative process of amending and implementing procedures for transition to green energy should bear in mind that by reducing income inequality the possibility of success would increase.

Another approach involves human resilience to the way in which inequality of income distribution arises. Under conditions of wastage of natural resources, people tend to find the most efficient ways to satisfy their needs. The reaction of individuals with high financial resources may be to misuse them excessively and without restraint, with negative environmental outcomes.

On the other hand, social groups that do not have sufficient financial resources to fulfil their needs do not pollute so significantly. Overall, because financial resources are limited and their consumption is limited. Policies to combat and reduce carbon emissions could be created on the basis of an analysis of the predominant social groups in the country concerned. Although programmes exist at European level to combat and reduce pollutant emissions in the atmosphere, such as replacing old and polluting cars, increasing energy efficiency through solar panels and creating environmentally friendly housing or improving rail transport, a broader analysis of the predominant social groups in each country in Europe in line with their income levels would be necessary so that policies applied at regional level do not further impact on the income of individuals. A balance needs to be struck between the way environmental taxes are applied and the reduction of income inequality so that the response of the financially majority population is positive.

The literature presents various indicators that have positive as well as negative effects on CO₂ emissions. The results of the present research can be validated by the method of comparison with other results that address the influence of income on the positive or negative evolution of carbon dioxide emitted into the atmosphere. At the European level, it has been reported that income levels increase carbon emissions, especially in the region of Turkey (Shan et al., 2021). The same is supported in another study conducted 16 years ago which mentions that income growth policy should have a carbon reduction policy as a supporting pillar (Halicioglu, 2009). Reduction policies in Europe should not be implemented through tax increases because the impact on carbon emissions is insignificant (Brzezinski & Kaczan, 2025). Setting them should be done according to the level of development each country is at (Methmini et al., 2025). Combining economic growth policies, with environmental policies and adapting them according to the specific level of development of each country could be the key to success in maintaining sustainable development (Prakash, 2025). At the Asian level, maintaining or decreasing income inequality, could be achieved by promoting renewable energy, another element of regulation of CO₂ emissions (Ali et al., 2025). Reducing income inequality in high-income countries can have reducing effects on consumption emissions and increase them in low-income countries (Coşkun, 2025). Antithesising the results of the present study with the findings of other researchers, income inequality has a statistically significant effect on CO₂ emissions depending on the level of development of the respective countries. Although programmes exist at European level to combat and reduce pollutant emissions in the atmosphere, such as replacing old and polluting cars, increasing energy efficiency through solar panels and creating environmentally friendly housing or improving rail transport, a broader analysis of the predominant social groups in each country in Europe in line with their income levels would be necessary in order to ensure that policies applied at regional level do not further impact on the income of individuals. A balance needs to be struck between the way environmental taxes are applied and the reduction of income inequality so that the response of the financially majority population is positive.

The conducted research has some methodological and analytical limitations:

1. Univariate model: Only one explanatory variable (GINI coefficient) was used, without controlling for the influence of other relevant factors (e.g. level of education, social expenditure, degree of urbanisation, etc.), which may lead to omitted variables error;

2. Aggregate data structure: The data used are aggregated (averages over the period 2016-2024) and do not reflect annual or regional variations. Thus, the advantages of a panel analysis, which would have provided more robustness to the results, are not exploited;

Future research directions

In order to consolidate and extend the results of the present research in the future, the research carried out may be extended as follows:

1. Extending the econometric model: introducing more relevant explanatory variables (e.g. level of education, degree of unionisation, public investment) to control more precisely for influences on poverty, GDP and emissions.

2. Panel data analysis: Use annual country-level data to allow the application of fixed or random effects models, which would provide a deeper understanding of the dynamic relationships between variables.

3. Comparison across EU regions: differentiated assessment of Western vs Eastern, Northern vs Southern European countries to capture contextual influences on income distribution and sustainable development;

References

1. Barford, A., Beales, A., & Zorila, M. (2025). An Expert Study of Systemic Influences on Progress Towards Living Wages: A Key to Unlock the Sustainable Development Goals. In *Business Strategy and Development* (Vol. 8, Numărul 1). John Wiley and Sons Inc. <https://doi.org/10.1002/bsd2.70048>
2. Bieri, S., & Bader, C. (Ed.). (2023). *Transitioning to Reduced Inequalities*. MDPI.

- <https://doi.org/10.3390/books978-3-03921-161-6>
3. Brzezinski, M., & Kaczan, M. (2025). Carbon taxes in Europe do not hurt the poor: Evidence from existing taxation schemes. In *Ecological Economics* (Vol. 233). Elsevier B.V.
<https://doi.org/10.1016/j.ecolecon.2025.108585>
 4. Coşkun, E. A. (2025). Exploring the trade-offs between carbon emissions, income inequality, and poverty: A theoretical and empirical framework. In *Energy Economics* (Vol. 143). Elsevier B.V.
<https://doi.org/10.1016/j.eneco.2025.108223>
 5. Greenhalgh, C. (2005). Why does market capitalism fail to deliver a sustainable environment and greater equality of incomes? In *Cambridge Journal of Economics* (Vol. 29, Numărul 6, pp. 1091–1109).
<https://doi.org/10.1093/cje/bei085>
 6. Halicioglu, F. (2009). An econometric study of CO2 emissions, energy consumption, income and foreign trade in Turkey. In *Energy Policy* (Vol. 37, Numărul 3, pp. 1156–1164).
<https://doi.org/10.1016/j.enpol.2008.11.012>
 7. Hein, E. (2015). Finance-dominated capitalism and re-distribution of income: A Kaleckian perspective. In *Cambridge Journal of Economics* (Vol. 39, Numărul 3, pp. 907–934). Oxford University Press.
<https://doi.org/10.1093/cje/bet038>
 8. Kilinc, Z. A., & Kilinc, M. (2024). Human genetic diversity and income inequality. In *Economics and Business Letters* (Vol. 13, Numărul 4, pp. 183–193). Oviedo University Press.
<https://doi.org/10.17811/eb1.13.4.2024.183-193>
 9. Mesarić, M. (2010). Is the spectre of socialism haunting Europe and the world again? (Is socialism the wishfull and real alternative to the neoliberal capitalism?); [Kruži li bauk socijalizma ponovno europom I svijetom? (Je li socijalizam poželjna I realna alternativa neoliberalnom kapitalizmu?)]. In *Ekonomski Pregled* (Vol. 61, Numerele 5–6, pp. 354–404).
 10. Methmini, D., Dharmapriya, N., Edirisinghe, S., Gunawardena, V., Jayathilaka, R., Wickramaarachchi, C., & Dharmasena, T. (2025). Economic and trade determinants of carbon emissions in the American region. In *Environmental Challenges* (Vol. 19). Elsevier B.V. <https://doi.org/10.1016/j.envc.2025.101140>
 11. Millward-Hopkins, J., & Oswald, Y. (2023). Reducing global inequality to secure human wellbeing and climate safety: A modelling study. In *The Lancet Planetary Health* (Vol. 7, Numărul 2, pp. e147–e154). Elsevier B.V. [https://doi.org/10.1016/S2542-5196\(23\)00004-9](https://doi.org/10.1016/S2542-5196(23)00004-9)
 12. Movahed, M. (2023). Varieties of capitalism and income inequality. In *International Journal of Comparative Sociology* (Vol. 64, Numărul 6, pp. 621–657). SAGE Publications Ltd.
<https://doi.org/10.1177/00207152231174158>
 13. Prakash, N. (2025). Income disparities and environmental dynamics: Exploring varied impacts of renewable energy, innovations, and economic growth on CO2 emissions. In *Renewable Energy* (Vol. 243). Elsevier Ltd. <https://doi.org/10.1016/j.renene.2025.122596>
 14. Roberts, M. (2020). The crisis of capitalism in the 21st Century. *Revista Linhas*, 21(46), 16–49.
<https://doi.org/10.5965/1984723821462020016>
 15. Rueda, D., & Pontusson, J. (2000). Wage inequality and varieties of capitalism. In *World Politics* (Vol. 52, Numărul 3, pp. 350–383). <https://doi.org/10.1017/S0043887100016579>
 16. Shan, S., Genç, S. Y., Kamran, H. W., & Dinca, G. (2021). Role of green technology innovation and renewable energy in carbon neutrality: A sustainable investigation from Turkey. In *Journal of Environmental Management* (Vol. 294). Academic Press. <https://doi.org/10.1016/j.jenvman.2021.113004>
 17. Stevenson, P. (1982). Capitalism and inequality: The negative consequences for humanity. *Contemporary Crises*, 6(4), 333–371. <https://doi.org/10.1007/BF00728232>
 18. Wu, M., Ma, Y., Gao, Y., & Ji, Z. (2024). The impact of digital economy on income inequality from the perspective of technological progress-biased transformation: Evidence from China. In *Empirical Economics* (Vol. 67, Numărul 2, pp. 567–607). Springer Science and Business Media Deutschland GmbH.
<https://doi.org/10.1007/s00181-024-02563-6>
 19. Ydstedt, A., & Zitelmann, R. (2025). What Sweden thinks about markets, capitalism and the rich. *Economic Affairs*, 45(1), 27–44. <https://doi.org/10.1111/ecaf.12684>

Database

1. European Commission, Eurostat. (n.d.). Eurostat. European Union. <https://ec.europa.eu/eurostat>