

# Economics and Business Review

Volume 11 (4) 2025

## CONTENTS

### Editorial introduction

*Monika Banaszewska, Ida Musiałkowska, Konrad Sobański*

## ARTICLES

### R&D tax credits, innovative activity and the targeting approach

*Erik Gjymshana, Annelies Roggeman, Isabelle Verleyen*

### Attitudes towards income inequality and trust: An analysis by income class in Poland

*Małgorzata Szczepaniak, Katarzyna Bentkowska*

### Financial inclusion and economic growth in Vietnam: Evidence across provinces and income groups

*Thi Thuy Huong Luong, Attasuda Lerskullawat, Thi Anh Nhu Nguyen*

### Perceived usefulness, ease of use, risk, and trust: Explaining BNPL user recommendation intention through behavioural models

*Krzysztof Waliszewski, Ewa Cichowicz, Mateusz Folwarski, Łukasz Gębski, Jakub Kubiczek, Paweł Niedziółka, Małgorzata Solarz*

### Sentiment and dividend smoothing: Do firms alter dividends during periods of high market activity?

*M. Jahir Uddin Palas, M. Adnan Ahmed*

### Algorithmic trading, liquidity and volatility: Evidence from Poland

*Henryk Gurgul, Robert Syrek*

## Editorial Board

*Monika Banaszewska (Editor-in-Chief), Ivo Bischoff, Horst Brezinski,  
Gary L. Evans, Niels Hermes, Witold Jurek, Tadeusz Kowalski, Joanna Lizińska,  
Ida Musiałkowska, Paweł Niszczoła, Michał Pilc (Deputy Editor-in-Chief),  
Katarzyna Schmidt-Jessa, Konrad Sobański*

## International Editorial Advisory Board

*Edward I. Altman – NYU Stern School of Business  
Udo Brodbeck – School of International Studies (ZIS), Technische Universität, Dresden  
Conrad Ciccotello – University of Denver, Denver  
Wojciech Florkowski – University of Georgia, Griffin  
Oded Galor – Brown University, Providence  
Binam Ghimire – Northumbria University, Newcastle upon Tyne  
Christopher J. Green – Loughborough University  
Eduard Hochreiter – The Vienna Institute for International Economic Studies  
Mark J. Holmes – University of Waikato, Hamilton  
Andreas Irmen – University of Luxembourg  
Bruce E. Kaufman – Georgia State University, Atlanta  
Robert Lensink – University of Groningen  
Steve Letza – The European Centre for Corporate Governance  
Robert McMaster – University of Glasgow  
Tomasz Mickiewicz – Aston University  
Victor Murinde – SOAS University of London  
Hugh Scullion – National University of Ireland, Galway  
Yochanan Shachmurove – The City College, City University of New York  
Thomas Taylor – School of Business and Accountancy, Wake Forest University, Winston-Salem  
Linda Gonçalves Veiga – University of Minho, Braga  
Thomas D. Willett – Claremont Graduate University and Claremont McKenna College  
Habte G. Woldu – School of Management, The University of Texas at Dallas*

## Thematic Editors

• **Economics:** *Monika Banaszewska, Ivo Bischoff, Horst Brezinski, Niels Hermes, Witold Jurek, Tadeusz Kowalski, Ida Musiałkowska, Michał Pilc, Konrad Sobański* • **Finance:** *Monika Banaszewska, Gary Evans, Witold Jurek, Joanna Lizińska, Paweł Niszczoła, Katarzyna Schmidt-Jessa, Konrad Sobański*  
• **Statistics:** *Marcin Anholcer, Maciej Beręsewicz, Elżbieta Gólatka*

**Language Editor:** *Robert Pagett*

Paper based publication

© Copyright by Authors, Poznań 2025

© Copyright for this edition by Poznań University of Economics and Business, Poznań 2025



This work is licensed under a Creative Commons Attribution 4.0 International License  
<https://creativecommons.org/licenses/by/4.0/>

<https://doi.org/10.18559/ebr.2025.4>

**ISSN 2392-1641**

**e-ISSN 2450-0097**

POZNAŃ UNIVERSITY OF ECONOMICS AND BUSINESS PRESS

ul. Powstańców Wielkopolskich 16, 61-895 Poznań, Poland

phone +48 61 854 31 54, +48 61 854 31 55

<https://wydawnictwo.ue.poznan.pl>, e-mail: [wydawnictwo@ue.poznan.pl](mailto:wydawnictwo@ue.poznan.pl)

postal address: al. Niepodległości 10, 61-875 Poznań, Poland

Printed and bound in Poland by:

Perfekt – Gaul i współlnicy sp. k.

Circulation: 80 copies

# Attitudes towards income inequality and trust: An analysis by income class in Poland

 Małgorzata Szczepaniak<sup>1</sup>
 Katarzyna Bentkowska<sup>2</sup>

## Abstract

Increasing income inequality has raised concerns about social cohesion, yet the subjective dimension of inequality and its relationship to trust remain underexplored. This article examines links between attitudes toward income inequality and generalised and institutional trust in Poland, a post-socialist state characterised by strong anti-inequality sentiment and low trust. Using data from the 5th wave of the European Values Study ( $N = 1,352$ ), we employ an economic stratification framework with five income classes, complemented by non-parametric tests and logistic regression. The results show that acceptance of inequality increases with income, with the sharpest contrasts between low- and high-income classes, while middle strata remain relatively homogeneous. Generalised trust rises with income, whereas institutional trust follows more complex, non-linear patterns. Crucially, the links between trust and inequality attitudes are class-specific: generalised trust in strangers legitimises inequality overall, while generalised trust in relatives has divergent effects across lower- and upper-middle-income groups.

## Keywords

- income inequality
- inequality perception
- income class
- generalised trust
- institutional trust
- economic stratification
- informal institutions
- institutional economics

**JEL codes:** D02, D31, D63, P36, Z13

Article received 26 August 2025, accepted 15 December 2025.

**Suggested citation:** Szczepaniak, M., & Bentkowska, K. (2025). Attitudes towards income inequality and trust: An analysis by income class in Poland. *Economics and Business Review*, 11(4), 33–58. <https://doi.org/10.18559/ebr.2025.4.2563>



This work is licensed under a Creative Commons Attribution 4.0 International License  
<https://creativecommons.org/licenses/by/4.0>

<sup>1</sup> Nicolaus Copernicus University in Toruń, Faculty of Economic Sciences and Management, Gagarina 11 Street, 87-100 Toruń, Poland, m.szczepaniak@umk.pl, <https://orcid.org/0000-0001-6007-8430>.

<sup>2</sup> SGH Warsaw School of Economics, Collegium of Business Administration, Institute of Markets and Competition, Niepodległosci Avenue 162, 02-554 Warszawa, kbent@sgh.waw.pl, <https://orcid.org/0000-0002-2063-2529>.

---

This edition is supported by funds granted by the Minister of Science of the Republic of Poland under the „Regional Initiative for Excellence” Programme for the implementation of the project “The Poznań University of Economics and Business for Economy 5.0: Regional Initiative – Global Effects (RIGE)”.

## Introduction

In recent decades, income inequality has become a central concern in economic research. Existing studies have predominantly focused on its actual level, sources, and structural consequences (Deaton, 2016; Piketty, 2015; Stiglitz, 2015). The literature consistently links rising inequality to adverse social outcomes, such as diminished quality of life, heightened social tensions, and the erosion of institutional legitimacy (OECD, 2019). Wilkinson and Pickett (2011) further emphasise its broader societal consequences, demonstrating that societies with greater income disparities tend to experience higher levels of anxiety, weaker social cohesion, and lower trust. Evidence increasingly links attitudes toward income inequality to trust, a key mechanism for social interaction. A substantial body of research underscores its pivotal role in facilitating interactions among actors, fostering cooperation, and enabling collective solutions to be developed. Specifically, trust contributes to the reduction of transaction costs, encourages desired individual behaviours, and motivates actors to act by existing rules (e.g., Bjørnskov, 2012, 2022; Bjørnskov & Méon, 2015; Guiso et al., 2006; Knack & Keefer, 1997; Tabellini, 2010; Zak & Knack, 2001). Societies with higher trust tend to exhibit greater equality, yet findings remain ambiguous.

Although the link between trust and income inequality has been studied, the subjective perspective on income inequality remains underexplored. Therefore, we focus on attitudes toward income inequality rather than objective measures such as the Gini index, capturing how individuals perceive economic disparities and how these perceptions relate to trust. There is a growing focus on how people assess their social and economic environment, including their perception of income inequality (Knell & Stix, 2020). Scholars suggest that perceptions of inequality may be a more reliable predictor of responses to economic disparities than objective measures (Uddin, 2025, p. 2). Knell and Stix (2021, p. 801) claim that “an unbiased estimate of the effect of inequality on trust can be obtained with a measure of individual-specific perceptions of inequality.” Even if perceptions do not accurately reflect actual inequality levels, tensions in society arise when they are perceived as unfair (Zmerli & Castillo, 2015, p. 180). Subjective income inequality is important to the func-

tioning of societies, for example, it can erode trust in political and economic systems (Deaton, 2016).

Moreover, considering the income class gradient in inequality acceptance observed in Europe (Szczepaniak et al., 2025), we employ an economic stratification perspective to capture how individuals' positions within the income distribution condition both their attitudes toward inequality and their orientations toward trust. This approach highlights relational differences between income classes often obscured in aggregate-level analyses, thereby offering a nuanced understanding of how trust and inequality attitudes are embedded in social hierarchies.

Given the distinct origins and implications of various forms of trust, our study categorises them. Generalised trust extends beyond face-to-face interactions, encompassing individuals with whom one is not personally acquainted (Rothstein & Stolle, 2008, p. 441). Institutional trust, a form of particularised trust, concerns well-identified subjects and arises from interactions between citizens and public institutions (Bjørnskov, 2006, p. 2; Camussi & Mancini, 2019, pp. 489–490). Furthermore, research has yielded weak and inconsistent evidence that individuals with high levels of social trust also display greater political trust (Zmerli & Newton, 2008), suggesting the need to analyse the categories of trust in more detail. Studies on inequality primarily focus on one category of trust, most frequently generalised trust, and occasionally on institutional trust. Meanwhile, recent crises have eroded trust in institutions, undermining the credibility of governments and public administration in Western economies (Algan et al., 2017; Botsman, 2018; Camussi & Mancini, 2019; Hetherington, 1998; Inglehart, 1997). Institutional trust, therefore, remains a vital research topic. Since trust is often used as a proxy for informal institutions (Cruz-García & Peiró-Palomino, 2019; Tabellini, 2010; C. Williamson, 2009), this study contributes to the field of institutional economics by examining how informal institutions, particularly trust, relate to attitudes towards income inequality in terms of economic stratification. This perspective offers valuable insights, especially given the underexplored role of informal institutions (Bentkowska, 2024, p. 28).

In our analysis, we focus on Poland, a post-socialist country, where income inequality rose during the transition to a market economy (Bukowski et al., 2023; Bukowski & Novokmet, 2021). Negative attitudes towards income inequality are now widespread, with the vast majority of the population considering the current level of inequality excessive (Berlingieri et al., 2023; CBOS, 2024a; OECD, 2021). Poland thus represents a post-socialist EU economy characterised by high growth and development (Piątkowski, 2023), yet also exhibiting a strong anti-inequality sentiment (Bukowski et al., 2024). Research indicates that post-socialist societies tend to be less trusting due to past regimes and the upheaval following their collapse (Bjørnskov, 2006, p. 15). Totalitarian regimes fostered fear and distrust, eroding social capital (Paldam & Svendsen, 2001). The institutional changes forced discontinuity and adaptation to unfamiliar structures

(Mishler & Rose, 2001, p. 31). These effects may persist, and levels of trust in society appear relatively stable over time (Bjørnskov, 2006, p. 3). Polish society, like other post-socialist countries (Rothstein & Uslaner, 2005, p. 48), continues to exhibit comparatively low trust. Nearly three-quarters of Poles believe one cannot be too careful with others, a pattern stable for two decades (CBOS, 2024b, pp. 1–2). Only 38% report confidence in the government, compared with 60–80% in countries such as Switzerland and Luxembourg (OECD, 2022). Despite the salience of inequality perceptions and persistently low levels of trust, few studies examine their link within an income-stratified framework in Poland. Existing research examines either perceptions of inequality (Czerniak et al., 2018; Domański, 2010; Litwiński et al., 2023; Szczepaniak, 2025) or trust (in a broader comparative perspective) (Bjørnskov, 2006; Rothstein & Uslaner, 2005), but not their intersection.

This article addresses this gap by examining how attitudes toward income inequality relate to generalised and institutional trust across income classes in Poland. Using data from the European Values Survey, we apply nonparametric tests and logistic regression models to answer: (1) How do attitudes towards income inequality vary across income classes? (2) How do levels of generalised and institutional trust differ across income classes? and (3) To what extent are attitudes towards income inequality associated with different dimensions of trust, and do these relationships vary across income classes?

The remainder of the paper is organised as follows: Section 1 presents the key concepts, focusing on perceived income inequality and its links to different forms of trust. Section 2 describes the data and methods. Next, after presenting the results, we discuss the empirical findings. The final section provides conclusions.

## 1. Literature review

Subjective income inequality is more relevant for understanding social and political outcomes than objective measures of income inequality (Gimpelson & Treisman, 2018) because of biased perceptions of income inequality (Engelhardt & Wagener, 2014). Szirmai (1988) demonstrated that public opinion on inequality is remarkably persistent over time and deeply rooted in cultural and historical contexts. Consequently, in societies with egalitarian traditions, such as post-socialist countries, negative attitudes toward inequality can persist even after structural reforms. In Poland, in the early post-socialist period, inequality was often regarded as a temporary and acceptable cost of modernisation (Gijsberts, 2002). Yet over time, prolonged exposure to market-based stratification has eroded these legitimising beliefs, particu-

larly among groups facing blocked upward mobility (Grosfeld & Senik, 2008). Drawing on Hirschman's "tunnel effect" hypothesis, Durongkaveroj (2025) argues that tolerance of inequality declines when rising aspirations are not matched by actual mobility, an experience common in Poland during the later stages of the transition period. Since EU accession, survey evidence indicates that about 90% of Poles view the income gap as too wide (CBOS, 2017; 2024a).

In the economics literature, it is noted that an individual's position in the income distribution, specifically their income class, has a profound impact on perceptions of income inequality. Income class gradient is observed in acceptance of income inequality, with higher income groups tending to perceive inequality more positively (Gijsberts, 2002; Szczepaniak et al., 2025) or, more generally, the positive relationship between affluence and acceptance of inequality is identified (Berlingieri et al., 2023; Corneo & Grüner, 2002; Czerniak et al., 2018; Haddon & Wu, 2022; Litwiński et al., 2023; OECD, 2021; Rueda & Stegmüller, 2019). Among other determinants of income inequality acceptance, the following are: higher education levels (Knell & Stix, 2020; Kuziemko et al., 2015), a sense of empowerment, conservative worldview, and support for redistribution (Litwiński et al., 2023), and age (Czerniak et al., 2018; Litwiński et al., 2023; Szczepaniak, 2025).

Additionally, behavioural-economic theories provide further insight into why individuals differ in their attitudes toward income inequality. Inequality aversion models (Fehr & Schmidt, 1999) posit that individuals experience disutility from unfair income differences and thus react not only to absolute income but also to the distributional context. Such preferences help explain why attitudes toward inequality may vary across income classes, with lower-income groups exhibiting a stronger aversion to unequal outcomes. At the same time, subjective evaluations of inequality are shaped by perceptions of relative income, as documented in extensive research showing that individuals assess their satisfaction through social comparisons rather than objective income levels (Cruces et al., 2013). This aligns with Social Comparison Theory (Festinger, 1954; Michalos, 1985), which posits that people evaluate their standing by benchmarking themselves against their peers, often normalising inequality within their reference groups. Moreover, System Justification Theory (Jost & Banaji, 1994) suggests that individuals may rationalise disparities to maintain psychological stability, contributing to the internalisation of inequality. Taken together, these behavioural and psychological frameworks explain why attitudes toward inequality and their links to trust may differ across income strata and how the perceived legitimacy of inequality emerges from cognitive and socio-economic processes.

A substantial body of evidence shows that higher income or social class is positively correlated with generalised trust (e.g., Alesina & La Ferrara, 2002; Ananyev & Guriev, 2018; Brückner et al., 2021; Navarro-Carrillo et al., 2018; Qiang et al., 2021). Qiang et al. (2021) argue that trust entails risk, which dis-

proportionately affects lower-class individuals with fewer resources to absorb losses, whereas wealthier individuals face lower risk and can leverage trust for greater benefits. The pattern is not universal; Hamamura (2012) finds that while social class predicts generalised trust in wealthy countries, the association disappears in less affluent contexts. By contrast, the link between institutional trust and income is less consistent. Some studies report a positive correlation, but only in certain countries (Catterberg & Moreno, 2006) or specific regions within a country (Chen & Wang, 2022). Other research finds no significant association (Kaasa & Parts, 2008).

As previously noted, extensive research confirms a positive relationship between trust and income inequality. Bjørnskov (2006, pp. 5, 8) indicates that a more equal income distribution is reported to be beneficial for generalised trust in virtually all studies. The relationship between trust and income inequality is supported by others (Alesina & La Ferrara, 2002; Knack & Keefer, 1997; Knack & Zak, 2003; Kyriacou & Velásquez, 2015; Rothstein & Uslaner, 2005; Zak & Knack, 2001). Uddin (2025, p. 2) claims that research on the relationship between trust and inequality has produced mixed results; while some studies report a negative correlation, others identify no significant association.

Algan & Cahuc (2014) highlight the need to examine the direction of causality in the relationship. The negative correlation may reflect a high level of trust co-occurring with a greater preference for redistribution, which reduces inequality. Conversely, high inequality may reduce trust, as individuals feel unfairly treated by other social classes, leading them to limit trust to their own class. When societal rewards are inequitably distributed, individuals may perceive themselves as being exploited, leading to undermining trust and reducing social cohesion (Brehm & Rahn, 1997, p. 1009). Bergh & Bjørnskov (2014) indicate that the support for the causality, where inequality determines trust, is ambiguous, arguing that causality is bi-directional, with the effect from trust to inequality substantially stronger. Accordingly, trust remains a deeply embedded informal institution and relatively insensitive to deliberate change (O. E. Williamson, 2000).

Bergh and Bjørnskov (2014) argue that trust facilitates cooperation and, consequently, leads to more equitable outcomes. People trust those they perceive as similar. Lower inequality is associated with greater societal homogeneity, which encourages trust (Rothstein & Uslaner, 2005). In hierarchical societies, trust is often developed within small groups bringing together similar people (Kyriacou & Velásquez, 2015). Such trust may reflect solidarity and the belief that each group shares a common fate (Rothstein & Uslaner, 2005, p. 42). There is no single accepted explanation of the negative relationship, as multiple justifications exist in the literature that receive varied degrees of empirical support (Jordahl, 2007).

Institutional trust also shapes attitudes. Recent decline in public trust appears closely linked to economic factors. Foster and Frieden (2017) attribute

this not directly to inequality, but to individuals' positions in the labour market, with those in more favourable positions reporting greater trust in government. Wroe (2016) finds that economic insecurity significantly reduces political trust. While inequality is negatively correlated with political trust, Zmerli and Castillo (2015) show that it operates through both objectively measured and subjectively perceived inequality. Bobzien (2023) highlights the significance of the gap between preferred and perceived inequality, with a widening gap lowering political trust. Similarly, Loveless (2013) links perceived excessive inequality to lower trust and political efficacy. Shuai et al. (2024) emphasise mediating mechanisms in the inequality-political trust relationship. Cross-border evidence further indicates that citizens in more unequal societies tend to express lower confidence in public institutions (Anderson & Singer, 2008). Economic inequality also undermines democratic attitudes, regardless of social class (Krieckhaus et al., 2013).

As discussed above, existing research on trust and inequality typically relies on objective income inequality measures and largely overlooks the relationships between trust and attitudes toward inequality. In the Polish context, given the widespread preference for income equality and low trust levels, studying the subjective inequality in link with trust provides essential insight into how both generalised and institutional trust may shape subjective evaluations of inequality in income distribution.

## 2. Data and methods

### 2.1. Data

The analysis is based on data from the 5th wave of the European Values Study (Gedeshi et al., 2020). The EVS is a large-scale, cross-national research programme that provides repeated measures of social attitudes, values, and beliefs across European countries. The 5th wave EVS data collection spanned from 2017 to 2021. The Polish subsample is nationally representative, covering adults aged 18 and older. The final sample used for analysis consists of 1,352 respondents from Poland.

### 2.2. Economic stratification

To examine patterns by income class, we use the EVS household income groups variable (Q98), in which respondents placed their household's net

monthly income on a 10-point scale corresponding to the national income deciles (from the lowest to the highest). For analytical purposes, the original ten categories were consolidated into five income classes. Following approaches commonly applied in research on economic stratification and middle-class dynamics (OECD, 2019; Szczepaniak, 2024; Szczepaniak et al., 2025; Vaughan-Whitehead, 2016), we grouped the deciles as follows: low income (LIC, deciles 1–2), lower-middle (LMIC, 3–4), core middle (CMIC, 5–6), upper-middle (UMIC, 7–8), and high income classes (HIC, 9–10). The five-class structure aligns with stratification thresholds widely used in comparative research, providing sufficient granularity to examine attitudinal heterogeneity across income positions.

### **2.3. Key variables**

Attitudes towards income inequality, as interpreted in our study, refer to how income inequality is perceived and are synonymous with perceptions of inequality (Szczepaniak et al., 2025). Attitudes toward income inequality are measured using variable Q32D, which captures agreement on a 10-point scale between the statements: “Incomes should be made more equal” and “There should be greater incentives for individual effort”. The dichotomised measure of income inequality attitudes used in our study follows the conceptual interpretation of the EVS item, where values 1–5 reflect support for reducing income differences (a negative attitude toward inequality), whereas values 6–10 reflect greater acceptance of income inequality (a positive attitude toward income inequality). Moreover, other studies of the perception of income inequality conceptually use binarisation, collapsing responses into two groups: egalitarians and incentive-oriented respondents (Berlingieri et al., 2023; Knell & Stix, 2020).

Variables related to trust are constructed using factor analysis (presented in Section 2.4), based on responses to two sets of questions: Q8, which measures trust in people from various social groups, and Q38, which assesses confidence in various organisations. Both use a four-point response scale. A detailed list of the trust items included in the factor analysis is presented in Table 1.

### **2.4. Factor analysis**

From the EVS questions mentioned above, we selected those that assess trust, and grouped them into two categories: generalised trust and institutional trust. Data on generalised trust pertain to trust in specific groups of people. Proxies for institutional trust are derived from questions measuring respondents’ confidence in various organisations. Although Q38 comprises trust ratings

for various organisations (e.g., the Church, the armed forces, and the press), not all items were included in the analysis. The selection of variables was aligned with the research aim of examining trust in the state's institutional structures in relation to perceptions of inequality. Therefore, only items reflecting key governance-related institutions (government, parliament, political parties, justice system, police, and civil service) were selected for further analysis.

We employed factor analysis to validate the selection of questions for the two identified trust categories. The necessary conditions for factor analysis (determinant value, KMO, and Bartlett's test) are met. This analysis allowed us to assess whether the questions were homogeneous and measured similar constructs. Additionally, it helped identify the internal structure of the scales and extract the underlying factors. The number of factors within each trust category was determined using the Kaiser criterion, which retains factors with eigenvalues greater than one. Varimax orthogonal rotation was applied to define the factors. To ensure the reliability of the scales and the appropriateness of the selected items, we also conducted Cronbach's alpha tests. It is generally accepted that a Cronbach's alpha value of at least 0.7 is necessary for a scale to be considered reliable. In our analysis, the Cronbach's alpha values are 0.777 for generalised trust and 0.786 for institutional trust. Generalised trust consists of two factors, which together explain 67% of the variance. Similarly, institutional trust comprises two factors explaining 66% of the variance.

For generalised trust, the first factor reflects trust in strangers, while the second captures trust in familiar individuals (relatives and acquaintances). For institutional trust, the first factor is primarily associated with political organisations, reflecting confidence in abstract or systemic actors that individuals typically perceive but do not interact with directly. The second factor represents trust in implementing organisations, those responsible for maintaining order and providing public services, perceived as less political (Table 1). This distinction aligns with the approach developed by Rothstein & Stolle (2008), who emphasise that people perceive institutions differently.

**Table 1. Generalised and institutional trust**

| Generalised trust  | Institutional trust   |
|--|---|
| <ul style="list-style-type: none"> <li>• Trust in strangers</li> <li>• Trust in people of another religion</li> <li>• Trust in people of another nationality</li> <li>• Trust in people you meet for the first time</li> <li>• Trust in relatives</li> <li>• Trust in your family</li> <li>• Trust in people in your neighbourhood</li> <li>• Trust in people you know personally</li> </ul> | <ul style="list-style-type: none"> <li>• Trust in the political organisations</li> <li>• Confidence in government</li> <li>• Confidence in parliament</li> <li>• Confidence in political parties</li> <li>• Trust in implementing organisations</li> <li>• Confidence in the justice system</li> <li>• Confidence in the police</li> <li>• Confidence in civil service</li> </ul> |

Source: based on data from EVS and results of factor analysis.

Based on the factor scores, we divided respondents into two groups. Respondents with factor values below zero were classified as having high trust, while those with values above zero were classified as having low trust. This division reflects the mean-centred nature of factor scores, where the average value is zero.

## 2.5. Statistical procedures

The analysis proceeds in the steps corresponding to the research questions. Primarily, for the first and second research questions, the procedure was as follows: (1) Descriptive statistics by income class; (2) Normality tests (Shapiro–Wilk); (3) Kruskal–Wallis test for differences across income classes (non-parametric due to ordinal scale and non-normal distribution); (4) *Post-hoc* Dunn's test with Bonferroni correction to identify class pairs with significant differences (Dunn, 1964).

Then, for the third research question procedure was: (1) Cross-tabulations of trust categories and inequality attitudes (overall sample and by income class); (2) Chi-square tests for associations; (3) Binary logistic regression: dependent variable is dichotomised inequality attitude (1–5 = low acceptance, 6–10 = high acceptance). Independent variables are trust subdimensions, entered separately and by income class to examine heterogeneous effects.

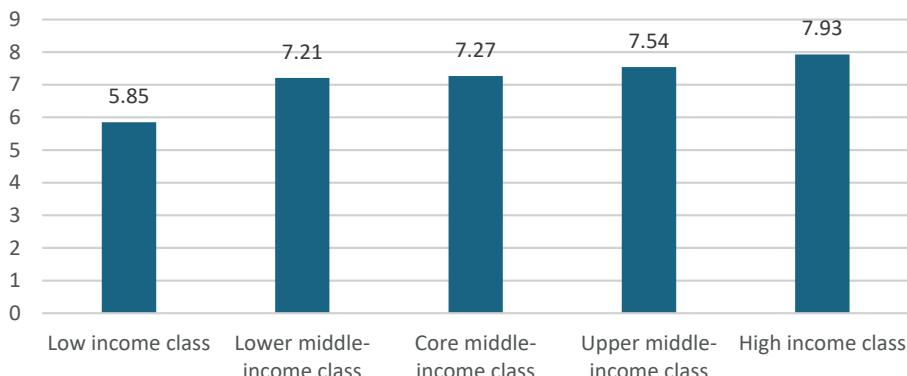
All analyses were performed in SPSS 28. Non-parametric tests were chosen due to the ordinal nature of variables and deviations from normality. Logistic regression models were assessed using the Hosmer–Lemeshow test for model fit.

## 3. Results

### 3.1. Attitudes towards income inequality by income classes

First, attitudes towards income inequality from the perspective of economic stratification were analysed. The results indicated a clear upward trend in the acceptance of income inequality across income classes. Mean scores on the attitudes toward inequality increase progressively from the lowest to the highest income class, suggesting that individuals in higher income classes are more likely to view income disparities as acceptable (Figure 1).

Following this, a normality test was conducted. The normality of attitudes towards income inequality was assessed using the Shapiro–Wilk test.



**Figure 1. Attitudes towards income inequality by income classes**

Source: based on data from EVS.

Significant deviations from normality were detected for attitudes towards income inequality (Shapiro–Wilk test statistic = 0.862;  $p < 0.001$ ). Accordingly, non-parametric statistical methods were used for subsequent analyses.

A Kruskal–Wallis test was conducted to examine whether individuals from different income classes exhibit significantly different attitudes toward income inequality. The test revealed a statistically significant difference in the distribution of attitudes toward income inequality across income classes

**Table 2. Pairwise comparisons of income classes regarding attitudes towards income inequalities**

| Income class 1–Income class 2 | Test statistic | Standard error | Significance | Adjusted significance |
|-------------------------------|----------------|----------------|--------------|-----------------------|
| LIC vs. LMIC                  | –40.876        | 26.889         | 0.128        | 1.000                 |
| LIC vs. CMIC                  | –55.133        | 29.022         | 0.057        | 0.575                 |
| LIC vs. UMIC                  | –70.998        | 29.307         | 0.015        | 0.154                 |
| LIC vs. HIC                   | –123.355       | 31.047         | <0.001       | 0.001                 |
| LMIC vs. CMIC                 | –14.257        | 28.416         | 0.616        | 1.000                 |
| LMIC vs. UMIC                 | –30.122        | 28.707         | 0.294        | 1.000                 |
| LMIC vs. HIC                  | –82.479        | 30.481         | 0.007        | 0.068                 |
| CMIC vs. UMIC                 | –15.865        | 30.714         | 0.605        | 1.000                 |
| CMIC vs. HIC                  | –68.222        | 32.378         | 0.035        | 0.351                 |
| UMIC vs. HIC                  | –52.357        | 32.634         | 0.109        | 1.000                 |

Note: Asymptotic significances (2-sided tests) are displayed. The significance level is 0.05.

Each row tests the null hypothesis that the distributions of Samples 1 and 2 are the same.

\* Adjusted significance – significance values have been adjusted using the Bonferroni correction for multiple tests.

Source: based on data from EVS.

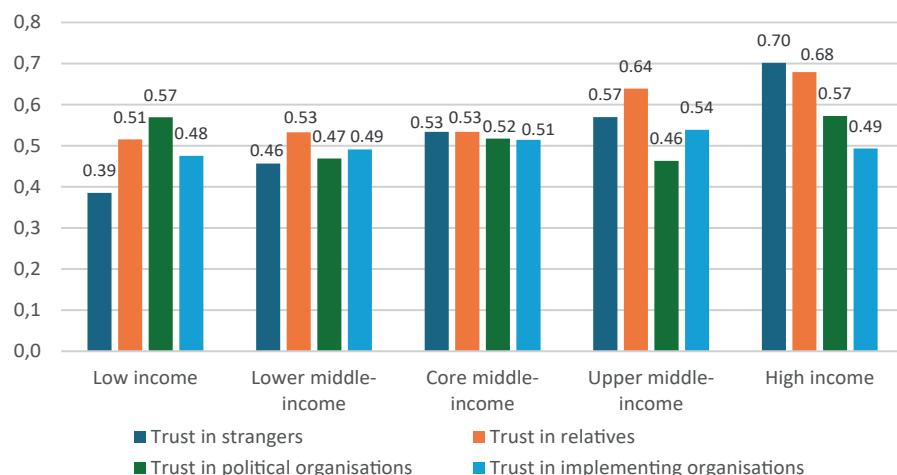
( $H(4) = 16.972, p = 0.002; N = 1076$ ). Moreover, the Chi-square test revealed a statistically significant association between income class and attitudes toward income inequality ( $\chi^2(36) = 68.334, p < 0.001$ ). These findings corroborate descriptive analyses, indicating that income class plays a meaningful role in shaping attitudes toward income inequality. Individuals from different income brackets do not share the same level of acceptance of inequality, with higher income classes showing greater acceptance.

In the next step, post-hoc pairwise comparisons were conducted using Dunn's test with Bonferroni correction to examine the differences between selected income classes and attitudes towards income inequality (Table 2).

There is robust evidence that HIC members exhibit significantly greater acceptance of income inequality than members of the LIC. However, the differences between other income classes remained insignificant, suggesting homogeneity between middle-income class subgroups in attitudes towards income inequalities.

### 3.2. Relationships between different categories of trust and income classes

Based on the factor analysis (Section 2.4), we distinguished four categories of trust: trust in strangers, relatives, political organisations, and implementing organisations. In this analysis stage, the mean values of trust by income classes were analysed and are presented in Figure 2. The results revealed nuanced patterns depending on the trust categories. Trust in strangers increases



**Figure 2. Mean trust (in four categories) by income class**

Source: based on data from EVS.

consistently with income class, suggesting that this kind of generalised trust may be strongly tied to economic advantage. Trust in relatives also shows an upward trend, though less steeply. Higher income may facilitate stronger or more secure social ties. Trust in political organisations, in contrast, displays a non-linear pattern: higher in low- and high-income groups, but dips in the middle classes. This may reflect varying institutional scepticism or political alignment across classes. Lastly, trust in implementing organisations increases up to the upper-middle class, then drops in the highest class, indicating a non-linear relationship. This pattern suggests a nuanced or critical stance among the most affluent.

Normality of the trust categories was assessed using the Shapiro–Wilk test. Significant deviations from normality were detected for all categories of trust (Shapiro–Wilk test statistics equalled 0.946 ( $p < 0.001$ ), 0.941 ( $p < 0.001$ ), 0.977 ( $p < 0.001$ ), 0.995 ( $p = 0.004$ ) for trust towards strangers, relatives, political, and implementing organisations, respectively). Accordingly, non-parametric statistical methods were used for subsequent analyses. A Kruskal–Wallis test was conducted to examine whether individuals from different income classes exhibit significantly different levels of trust. The results, presented in Table 3, reveal that a statistically significant difference in the distribution of trust across income classes exists for trust in strangers, trust in others, trust in political organisations, but not trust in implementing organisations.

**Table 3. Kruskal–Wallis test results for trust categories across income classes**

|                 | Trust categories   |                    |                                  |                                     |
|-----------------|--------------------|--------------------|----------------------------------|-------------------------------------|
|                 | Generalised trust  |                    | Institutional trust              |                                     |
|                 | trust in strangers | trust in relatives | trust in political organisations | trust in implementing organisations |
| Test statistic  | 36.619             | 14.929             | 11.041                           | 1.741                               |
| <i>p</i> -value | <0.001             | 0.005              | 0.026                            | 0.783                               |

Source: Own preparation based on data from EVS.

To conduct an in-depth analysis, a pairwise comparison was conducted to examine the differences between selected income classes and trust categories, where the differences were statistically significant. *Post-hoc* pairwise comparisons were performed using Dunn's test with Bonferroni correction. The results revealed the significant differences between the low and high-income classes in three categories of trust. Between the HIC and the LMIC, significant differences were identified in trust in strangers and political organisations. The most sensitive to class differences was trust of strangers, with significant differences also between the middle parts of the income distribution (Table 4).

**Table 4. Pairwise comparisons of trust towards strangers, relatives, and political organisations by income classes**

| Income class 1–Income class 2 | Trust in strangers |                       | Trust in relatives |                       | Trust in political organisations |                       |
|-------------------------------|--------------------|-----------------------|--------------------|-----------------------|----------------------------------|-----------------------|
|                               | test statistic     | adjusted significance | test statistic     | adjusted significance | test statistic                   | adjusted significance |
| HIC vs. UMIC                  | 76.814             | 0.088                 | 10.129             | 1.000                 | -44.247                          | 0.848                 |
| HIC vs. CMIC                  | 89.166             | 0.022                 | 50.822             | 0.634                 | -68.147                          | 0.175                 |
| HIC vs. LMIC                  | 126.521            | 0.000                 | 63.563             | 0.290                 | -83.162                          | 0.024                 |
| HIC vs. LIC                   | 165.967            | 0.000                 | 78.932             | 0.049                 | -87.106                          | 0.017                 |
| UMIC vs. CMIC                 | 12.352             | 1.000                 | 40.692             | 1.000                 | -23.899                          | 1.000                 |
| UMIC vs. LMIC                 | 49.707             | 0.564                 | 53.434             | 0.552                 | -38.915                          | 1.000                 |
| UMIC vs. LIC                  | 89.153             | 0.009                 | 68.803             | 0.103                 | -42.859                          | 1.000                 |
| CMIC vs. LMIC                 | 37.355             | 1.000                 | -12.741            | 1.000                 | 15.015                           | 1.000                 |
| CMIC vs. LIC                  | 76.801             | 0.039                 | 28.111             | 1.000                 | 18.959                           | 1.000                 |
| LMIC vs. LIC                  | 39.446             | 1.000                 | 15.369             | 1.000                 | -3.944                           | 1.000                 |

Note: Asymptotic significances (2-sided tests) are displayed. The significance level is 0.050.

Each row tests the null hypothesis that the distributions of Samples 1 and 2 are the same.

\* Adjusted significance – significance values have been adjusted using the Bonferroni correction for multiple tests.

Source: based on data from EVS.

To conclude, the analysis revealed that trust is not uniform across social strata. Higher-income individuals are generally more trusting of others on a general level (strangers and relatives) but demonstrate greater scepticism toward institutional actors, especially political bodies.

### 3.3. Relationships between trust and attitudes towards income inequality

To explore this relationship, cross-tabulations and logistic regression models were conducted to assess whether higher levels of trust increase the chance of a more positive attitude toward income inequality, both in the overall sample and within each income class.

In the whole sample, higher trust in strangers was significantly associated with greater acceptance of income inequality. This suggests that trust in strangers may play a legitimising role in shaping more favourable views of

inequality. Moreover, other categories of trust, such as trust in relatives, political organisations, or implementing organisations, did not exhibit a significant association with attitudes toward inequality for all classes combined. Therefore, given that both attitudes toward income inequality and most categories of trust differed significantly across income classes, an analysis of the relations between attitudes toward income inequality and trust was conducted in terms of income class stratification (Table 5).

In the LIC, none of the trust dimensions was significantly related to attitudes about inequality. In both LMICs and UMICs, a significant association emerged between trust in relatives and the acceptance of inequality. In the CMIC, none of the trust variables showed a significant association with inequality attitudes. Finally, no significant relationship was found between any trust dimension and attitudes towards inequality in the HIC. To conclude, the relationship between trust and acceptance of inequality is complex and income-class specific, underscoring the need to consider class-specific social orientations when analysing the moral and psychological foundations of inequality's legitimacy.

In the final step of the analysis, to assess whether higher trust influences the chance of accepting income inequality, binary logistic regressions were performed using trust categories as predictors and a dichotomised version of the income inequality attitude variable as the dependent variable. Analyses were conducted on the full sample and disaggregated by income class to capture possible class-specific effects (Table 6).

The results from the full-sample model indicate that higher trust in strangers significantly increases the chance of expressing a more positive attitude toward income inequality. This supports the idea that this kind of generalised trust may function as a legitimising mechanism for the social and economic order. No other trust categories (trust in relatives, political organisations, or implementing organisations) significantly affected the probability of higher acceptance of income inequality (Table 6).

Remarkably, the class-stratified models reveal important heterogeneity in the effect of trust. In the LIC model, only trust in strangers showed a weakly significant positive association with acceptance of inequality; other trust categories were not significant. In the LMIC model, a significant relationship was found between trust in relatives and the acceptance of inequality. Individuals in this group who expressed a high level of trust in their close network were less likely to accept income inequality. However, those who expressed great trust in strangers were more likely to accept inequality to a greater extent (weak significance). This may suggest that interpersonal solidarity and proximity reinforce egalitarian values in this class. In the CMIC model, no trust variable was significantly associated with attitudes toward inequality. This neutrality may reflect a more ambiguous position in the social structure, where both upward and downward identifications are possible. In the UMIC, in con-

**Table 5. Attitudes towards income inequality and trust dimension in all classes combined and by income class (Chi-squared)**

| Relations between income classes and trust categories | Income class                |         |                             |         |                             |         |                             |         |                             |         |                             |         |
|---|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|-----------------------------|---------|
|   | All classes combined        |         | LIC                         |         | LMIC                        |         | CMIC                        |         | UMIC                        |         | HIC                         |         |
|   | test statistic ( $\chi^2$ ) | p-value |
| Trust in strangers                                    | 26.987                      | 0.001   | 10.368                      | 0.322   | 15.220                      | 0.085   | 10.950                      | 0.279   | 10.928                      | 0.281   | 8.320                       | 0.502   |
| Trust in relatives                                    | 9.348                       | 0.406   | 5.119                       | 0.824   | 20.687                      | 0.014   | 4.743                       | 0.856   | 21.580                      | 0.010   | 4.686                       | 0.861   |
| Trust in political organisations                      | 4.592                       | 0.868   | 6.895                       | 0.648   | 15.137                      | 0.087   | 3.527                       | 0.940   | 10.393                      | 0.320   | 9.974                       | 0.353   |
| Trust in implementing organisations                   | 13.611                      | 0.137   | 13.390                      | 0.146   | 4.035                       | 0.909   | 8.334                       | 0.501   | 4.55                        | 0.871   | 9.84                        | 0.367   |

Source: based on data from EVS.

**Table 6. Results of the binary logistic regression models of all income classes and by income class**

|   | All income classes combined.<br>N = 1352 |                 | Income classes          |                 |                         |                 |                         |                 |                         |                 |                         |                 |
|---|--|-----------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|
|   |  |                 | LIC (N = 255)           |                 | LMIC (N = 274)          |                 | CMIC (N = 202)          |                 | UMIC (N = 195)          |                 | HIC (N = 160)           |                 |
|   | B<br>( <i>p</i> -value)                  | Exp (B)         | B<br>( <i>p</i> -value) | Exp (B)         | B<br>( <i>p</i> -value) | Exp (B)         | B<br>( <i>p</i> -value) | Exp (B)         | B<br>( <i>p</i> -value) | Exp (B)         | B<br>( <i>p</i> -value) | Exp (B)         |
| Trust in strangers (1)                  | 0.524<br>(<0.001)                        | 1.688           | 0.698<br>(0.062)        | 2.009           | 0.646<br>(0.063)        | 1.908           | -0.118<br>(0.772)       | 0.889           | -0.752<br>(0.147)       | 0.472           | 0.253<br>(0.669)        | 1.288           |
| Trust in relatives (1)                  | -0.100<br>(0.536)                        | 0.905           | 0.034<br>(0.924)        | 1.034           | -0.907<br>(0.012)       | 0.404           | 0.326<br>(0.425)        | 1.386           | 1.103<br>(0.029)        | 3.012           | 0.016<br>(0.978)        | 1.017           |
| Trust in political organisations (1)    | 0.024<br>(0.879)                         | 1.024           | -0.037<br>(0.918)       | 0.964           | 0.046<br>(0.894)        | 1.047           | -0.112<br>(0.783)       | 0.894           | -0.187<br>(0.688)       | 0.829           | -0.020<br>(0.972)       | 0.980           |
| Trust in implementing organisations (1) | 0.190<br>(0.231)                         | 1.209           | 0.468<br>(0.189)        | 1.597           | -0.277<br>(0.422)       | 0.758           | 0.054<br>(0.895)        | 1.055           | 0.570<br>(0.229)        | 1.768           | 0.206<br>(0.719)        | 1.229           |
| Hosmer and Lemeshow Test                | Chi-square                               | <i>p</i> -value | Chi-square              | <i>p</i> -value | Chi-square              | <i>p</i> -value | Chi-square              | <i>p</i> -value | Chi-square              | <i>p</i> -value | Chi-square              | <i>p</i> -value |
|   | 4.349                                    | 0.824           | 10.979                  | 0.203           | 5.051                   | 0.752           | 1.240                   | 0.996           | 2.807                   | 0.946           | 6.913                   | 0.546           |

Source: based on data from EVS.

trast to the lower middle class, trust in relatives was positively associated with acceptance of inequality. Individuals with stronger bonds to close networks were more likely to express favourable attitudes toward inequality, possibly reflecting shared values of meritocracy or individual responsibility. Finally, in the HIC model, none of the trust categories were significantly related to attitudes about inequality. This suggests that within the most affluent group, acceptance of inequality may be broadly internalised and no longer contingent on generalised or institutional trust levels.

The internalisation of inequality can be understood through several psychological and behavioural mechanisms. Research on system justification (Jost & Banaji, 1994) shows that individuals are motivated to perceive existing social arrangements as fair and legitimate, which leads them to rationalise income disparities even when these are unfavourable to them. Another mechanism relevant to this process is related to the Social Comparison Theory (Festinger, 1954), which posits that individuals evaluate their socio-economic position by comparing themselves with similar peers. Such intragroup social comparisons often lead to the normalisation of income differences, particularly when people assess their circumstances relative to peers with comparable incomes or social status. As a result, inequalities may come to be perceived as natural or deserved, reflecting a psychological internalisation of inequality.

The results from logistic regressions suggest that trust influences the legitimisation of inequality, but in class-dependent ways. Generalised trust (in strangers) plays a legitimising role in the full sample. However, generalised trust (in relatives) shows a bifurcated effect, discouraging acceptance of inequality among LMIC while promoting it among the UMIC. These findings support a differentiated model of inequality legitimisation, in which both the object of trust and the economic context, in terms of income class, shape individuals' attitudes.

## **4. Discussion**

This study contributes to the literature by connecting subjective inequality with multidimensional trust across income classes in a post-socialist context, an approach that has been rarely taken in research thus far. The findings are thought-provoking, which underscores the complexity of these relationships. Three central findings emerge from the analysis.

Firstly, attitudes toward income inequality differ significantly across income classes, with the sharpest contrasts observed between high- and low-income groups, while the middle-income strata display relatively homogeneous views. Higher-income classes tend to be more accepting of inequality, whereas low-

er-income classes express rather negative perceptions. Our results indicating an income-class gradient in positive attitudes to inequality are consistent with Corneo and Grüner (2002), Haddon and Wu (2022), Litwiński et al. (2023), Szczepaniak (2025), and Szczepaniak et al. (2025). It should be noted, however, that while Corneo and Grüner (2002) primarily analyse preferences for redistribution as an indirect indicator of inequality acceptance, and Haddon and Wu (2022) examine perceptions of inequality in relation to class and contextual levels of actual inequality, their findings nonetheless align with the general pattern of greater acceptance of inequality among higher-income groups.

The behavioural and psychological frameworks outlined in the literature help interpret the class-specific patterns from our results. Inequality aversion models suggest that lower-income groups are more sensitive to unfair distributional outcomes, consistent with their stronger opposition to income inequality. Conversely, the greater acceptance of inequality among upper-income groups can be understood through status-based preferences and system-justifying tendencies that legitimise existing disparities. Together, these mechanisms clarify how economic stratification influences the relationship between trust and attitudes toward inequality, reinforcing the correlational patterns observed empirically.

Secondly, trust varies systematically by income class, but the pattern depends on the type of trust. Generalised trust increases consistently with income, reflecting higher perceived societal security among higher-income groups. This notion is consistent with other research (Alesina & La Ferrara, 2002; Ananyev & Guriev, 2018; Brückner et al., 2021; Navarro-Carrillo et al., 2018; Qiang et al., 2021). In contrast, institutional trust is more nuanced: trust in political organisations dips in middle-income classes and partially recovers among high-income groups, while trust in implementing organisations peaks in the upper-middle class and declines among the wealthiest. Results regarding institutional trust are mixed in other studies as well. Catterberg & Moreno (2006) demonstrate that income increases institutional trust in Eastern Europe and Latin America, but has no effect in the former Soviet republics. Medve-Bálint & Boda (2014) indicate a different pattern for Western and East-Central Europe, with a negative relationship in the latter region. Chen & Wang (2022) show that while public trust is positively associated with income in China, this relationship only holds in some regions.

The study reveals a clear divergence between generalised and institutional trust, underscoring the importance of examining trust from multiple perspectives. Trust should be disaggregated into distinct categories, as they may have unique determinants and consequences. Furthermore, the analyses should move beyond a single concept, such as generalised trust, and account for distinct forms, sources, consequences, and interrelations of trust. The findings have crucial implications for redistribution policy: trust, income inequality, and the welfare state are linked through complex relationships (Bergh &

Bjørnskov, 2014). Research confirms that high levels of generalised and institutional trust foster support for redistributive policies (Bergh & Bjørnskov, 2011; Bjørnskov, 2006; Daniele & Geys, 2015). Therefore, trust differences across income groups may not only shape inequality perceptions but also the political feasibility of policies designed to address it.

Thirdly, the relationship identified between trust and attitudes toward income inequality in Poland is complex and heterogeneous. At the aggregate level, trust in strangers is associated with greater acceptance of inequality, suggesting a legitimising role (Rothstein & Uslaner, 2005; Zmerli & Castillo, 2015). However, class-specific results reveal contrasting effects: in the LMIC, greater trust in relatives corresponds to lower acceptance of inequality, indicating solidarity-driven egalitarian preferences, while in the UMIC, the same trust dimension correlates with greater acceptance, possibly reflecting meritocratic beliefs. In the HIC, no significant relationships emerge, suggesting normalised acceptance of inequality regardless of trust levels. Trust in strangers appears to support the acceptance of inequality, both in the general population and among lower-income groups.

In summary, trust patterns vary significantly across income groups. Policymakers can leverage these trust profiles to design more inclusive and effective policies and to tailor communication to the specific income class's expectations.

## Conclusions

This article contributes to the literature on trust and subjective inequality by examining their relationship across income classes in Poland. The results show that acceptance of inequality increases with income strata. Moreover, while generalised trust rises with income classes, institutional trust follows more complex patterns. The link between trust and inequality attitudes is heterogeneous, with different types of trust playing distinct roles in shaping acceptance in specific income classes. These findings underscore that trust attitudes toward inequality relationships are mediated by economic stratification.

Those insights have important policy implications. Efforts to reduce inequality should address not only material disparities but also public perceptions of these disparities. In this context, media and political narratives about inequality matter, as they shape how individuals interpret economic inequality and shape trust. As Fukuyama (1997, p. 180) observed, the economic value of trust becomes most apparent when we consider the dysfunction arising in its absence. This reinforces the urgency of safeguarding trust as a key societal resource amid persistent negative perceptions of inequality. Building

trust is not straightforward. Although the origins of trust remain debated (e.g., Bentkowska, 2023; Mishler & Rose, 2001), the literature suggests that trust is strengthened when institutions demonstrate competence, fairness, and responsiveness. Accordingly, policies addressing inequality may be more effective when they combine material measures with credible signals of commitment, including transparency, clear priorities, and consistent implementation. Participatory mechanisms may further reduce psychological distance and reinforce perceptions of institutional reliability, increasing the likelihood that trust is sustained over time.

This study focuses on Poland, a post-socialist country characterised by a common belief about excessive income inequality and relatively low levels of trust. While this context offers insights into the relationship between trust attitudes and inequality, it also limits generalisability due to the single-country design. Although Poland can serve as a benchmark for EU-based post-socialist states, future research would benefit from cross-country analyses and from examining these relationships over time.

Although our findings reveal systematic associations between trust and attitudes toward income inequality across income classes, these relationships are non-causal. The use of EVS data limits our ability to determine the direction of influence between the variables. Our results, therefore, reflect correlational patterns that may arise from multiple underlying mechanisms.

## References

Alesina, A., & La Ferrara, E. (2002). Who trust others? *Journal of Public Economics*, 85, 207–234. [https://doi.org/10.1016/s0047-2727\(01\)00084-6](https://doi.org/10.1016/s0047-2727(01)00084-6)

Algan, Y., & Cahuc, P. (2014). Trust, growth, and well-being: New evidence and policy implications. In P. Aghion & S. Durlauf (Eds.), *Handbook of economic growth* (vol. 2, pp. 49–120). Elsevier.

Algan, Y., Guriev, S., Papaioannou, E., & Passari, E. (2017, Fall). The European trust crisis and the rise of populism. *Brookings Papers on Economic Activity*, 309–382. <http://www.jstor.org/stable/90019460>

Ananyev, M., & Guriev, S. (2018). Effect of income on trust: Evidence from the 2009 economic crisis in Russia. *The Economic Journal*, 129(619), 1082–1118. <https://doi.org/10.1111/eco.12612>

Anderson, C. J., & Singer, M. M. (2008). The sensitive left and the impervious right: Multilevel models and the politics of inequality, ideology, and legitimacy in Europe. *Comparative Political Studies*, 41(4–5), 564–99. <https://doi.org/10.1177/0010414007313113>

Bentkowska, K. (2023). Trust and the quality of formal institutions. *Ekonoma i Prawo / Economics and Law*, 22(1), 21–35. <https://doi.org/10.12775/EiP.2023.002>

Bentkowska, K. (2024). Informal institutions – measurement and comparison in European countries. *Studies in European Affairs*, 28(1), 27–49. <https://doi.org/10.33067/SE.1.2024.2>

Bergh, A., & Bjørnskov, C. (2011). Historical trust levels predict the current size of the welfare state. *Kyklos*, 64(1), 1–19. <https://doi.org/10.1111/j.1467-6435.2010.00492.x>

Bergh, A., & Bjørnskov, C. (2014). Trust, welfare states and income equality: Sorting out the causality. *European Journal of Political Economy*, 35, 183–199. <https://doi.org/10.1016/j.ejpol eco.2014.06.002>

Berlingieri, F., Casabianca, E., d'Hombres, B., Kovacic, M., Mauri, C., Nurminem, M., Schnepf, S., & Stepanova, E. (2023). Perceptions of inequality and fairness: What has changed over past 5 years? *Fairness Policy Brief*, 1. <https://publications.jrc.ec.europa.eu/repository/handle/JRC131980>

Bjørnskov, C. (2006). Determinants of generalized trust: A cross-country comparison. *Public Choice*, 130, 1–21. <https://doi.org/10.1007/s11127-006-9069-1>

Bjørnskov, C. (2012). How does social trust affect economic growth? *Southern Economic Journal*, 78(4), 1346–1368. <https://doi.org/10.4284/0038-4038-78.4.1346>

Bjørnskov, C. (2022). Social trust and patterns of growth. *Southern Economic Journal*, 89(1), 216–237. <https://doi.org/10.1002/soej.12590>

Bjørnskov, C., & Méon, P. G. (2015). The productivity of trust. *World Development*, 70, 317–331. <https://doi.org/10.1016/j.worlddev.2015.01.015>

Bobzien, L. (2023). Income inequality and political trust: Do fairness perceptions matter? *Social Indicators Research*, 169, 505–528. <https://doi.org/10.1007/s11205-023-03168-9>

Botsman, R. (2018). *Who can you trust*. Penguin Random House.

Brehm, J., & Rahn, W. (1997). Individual-level evidence for causes and consequences of social capital. *American Journal of Political Science*, 41(3), 999–1023. <https://doi.org/10.2307/2111684>

Brückner, M., Chong, A., & Gradstein, M. (2021). National income and trust. *Review of Development Economics*, 25(1), 293–314. <https://doi.org/10.1111/rode.12724>

Bukowski, P., Chrostek, P., Novokmet, F., & Skawiński, M. (2023). *Income inequality in the 21st century Poland*. MF Working Papers, 40-2023. <https://www.gov.pl/web/finance/no-40-2023-p-bukowski-p-chrostek-f-novokmet-m-skawinski-income-inequality-in-the-21st-century-poland>

Bukowski, P., & Novokmet, F. (2021). Between communism and capitalism: Long-term inequality in Poland, 1892–2015. *Journal of Economic Growth*, 26, 187–239. <https://doi.org/10.1007/s10887-021-09190-1>

Bukowski, P., Sawulski, J., & Brzeziński, M. (2024). *Nierówności po polsku: Dlaczego trzeba się nimi zająć, jeśli chcemy dobrej przyszłości nad Wisłą*. Wydawnictwo Krytyki Politycznej.

Camussi, S., & Mancini, A. (2019). Individual trust: Does quality of local institutions matter? *Journal of Institutional Economics*, 15(3), 487–503. <https://doi.org/10.1017/s1744137418000279>

Catterberg, G., & Moreno, A. (2006). The individual bases of political trust: Trends in new and established democracies. *International Journal of Public Opinion Research*, 18(1), 31–48. <https://doi.org/10.1093/ijpor/edh081>

CBOS. (2017). *Stosunek Polaków do nierówności społecznych*. Komunikat z badań, 85/2017. [https://cbos.pl/SPISKOM.POL/2017/K\\_085\\_17.PDF](https://cbos.pl/SPISKOM.POL/2017/K_085_17.PDF)

CBOS. (2024a). *Stosunek Polaków do nierówności społecznych*. Komunikat z badań, 126/2024. [https://cbos.pl/SPISKOM.POL/2024/K\\_126\\_24.PDF](https://cbos.pl/SPISKOM.POL/2024/K_126_24.PDF)

CBOS. (2024b). *Zaufanie społeczne*. Komunikat z badań, 40/2024. [https://www.cbos.pl/SPISKOM.POL/2024/K\\_040\\_24.PDF](https://www.cbos.pl/SPISKOM.POL/2024/K_040_24.PDF)

Chen, Y., & Wang, X. (2022). Social trust and income of rural residents: Evidence from China. *Applied Economics*, 55(45), 5352–5368. <https://doi.org/10.1080/00036846.2022.2139804>

Corneo, G., & Grüner, H. P. (2002). Individual preferences for political redistribution. *Journal of Public Economics*, 83(1), 83–107. [https://doi.org/10.1016/S0047-2727\(00\)00172-9](https://doi.org/10.1016/S0047-2727(00)00172-9)

Cruces, G., Perez-Truglia, R., & Tetaz, M. (2013). Biased perceptions of income distribution and preferences for redistribution: Evidence from a survey experiment. *Journal of Public Economics*, 98, 100–112. <https://doi.org/10.1016/j.jpubeco.2012.10.009>

Cruz-García, P., & Peiró-Palomino, J. (2019). Informal, formal institutions and credit: Complements or substitutes? *Journal of Institutional Economics*, 15(4), 649–671. <https://doi.org/10.1017/s1744137419000018>

Czerniak, A., Graca-Gelert, P., & Łuczyn, R. (2018). Percepcja nierówności dochodowych a poparcie polskich partii politycznych w latach 2007–2015. *Przegląd Socjologiczny*, 67(2), 9–33. <https://doi.org/10.26485/PS/2018/67.2/1>

Daniele, G. & Geys, B. (2015). Interpersonal trust and welfare state support. *European Journal of Political Economy*, 39(1), 1–12. <https://doi.org/10.1016/j.ejpol eco.2015.03.005>

Deaton, A. (2016). *The great escape: Health, wealth, and the origins of inequality*. Princeton University Press.

Domański, H. (2010). Legitymizacja nierówności. *Nauka*, 1, 49–66.

Dunn, O. J. (1964). Multiple comparisons using rank sums. *Technometrics*, 6(3), 241–252. <https://doi.org/10.1080/00401706.1964.10490181>

Durongkaveroj, W. (2025). Societal perceptions toward income inequality during the process of economic development: Evidence from international panel data. *Asian Development Review*, 42(2), 29–53. <https://doi.org/10.1142/S0116110525400050>

Engelhardt, C., & Wagener, A. (2014). *Biased perceptions of income inequality and redistribution*. CESifo Working Paper, 4838. CESifo. [https://www.cesifo.org/DocDL/cesifo1\\_wp4838.pdf](https://www.cesifo.org/DocDL/cesifo1_wp4838.pdf)

Fehr, E., & Schmidt, K. (1999). A theory of fairness, competition, and cooperation. *The Quarterly Journal of Economics*, 114(3), 817–868. <https://doi.org/10.1162/003355399556151>

Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>

Foster, C., & Frieden, J. (2017). Crisis of trust: Socio-economic determinants of Europeans' confidence in government. *European Union Politics*, 18(4), 511–535. <https://doi.org/10.1177/1465116517723499>

Fukuyama, F. (1997). *Zaufanie. Kapitał społeczny a droga do dobrobytu*. Wydawnictwo Naukowe PWN.

Gedeshi, I., Pachulia, M., & Poghosyan, G. (2022). *European Values Study 2017: Integrated Dataset*. GESIS Data Archive. [https://search.gesis.org/research\\_data/ZA7500](https://search.gesis.org/research_data/ZA7500)

Gijsberts, M. (2002). The legitimization of income inequality in state-socialist and market societies. *Acta Sociologica*, 45(4), 269–285. <https://doi.org/10.1177/000169930204500402>

Gimpelson, V., & Treisman, D. (2018). Misperceiving inequality. *Economics & Politics*, 30(1), 27–54. <https://doi.org/10.1111/ecpo.12103>

Grosfeld, I., & Senik, C. (2008). *The emerging aversion to inequality: Evidence from Poland, 1992–2005*. IZA Discussion Papers, 3484. <https://nbn-resolving.de/urn:nbn:de:101:1-2008052744>

Guiso, L., Sapienza P., & Zingales L. (2006). *Does culture affect economic outcomes?* CRSP Working Paper, 11999. <https://doi.org/10.2139/ssrn.876601>

Haddon, E., & Wu, C. (2022). How does actual inequality shape people's perceptions of inequality? A class perspective. *Sociological Perspectives*, 65(5), 825–847. <https://doi.org/10.1177/07311214211062106>

Hamamura, T. (2012). Social class predicts generalized trust but only in wealthy societies. *Journal of Cross-Cultural Psychology*, 43(3), 498–509. <https://doi.org/10.1177/0022022111399649>

Hetherington, M. J. (1998). The political relevance of political trust. *American Political Science Review*, 92(4), 791–808. <https://doi.org/10.2307/2586304>

Inglehart, R. (1997). *Modernization and postmodernization: Cultural, economic and political change in 41 societies*. Princeton University Press.

Jordahl, H. (2007). *Inequality and trust*. IFN Working Paper, 715. <https://doi.org/10.2139/ssrn.1012786>

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology*, 33, 1–27.

Kaasa, A., & Parts, E. (2008). Individual-level determinants of social capital in Europe: Differences between country groups. *Acta Sociologica*, 51(2), 145–168. <https://doi.org/10.1177/0001699308090040>

Knack, S., & Keefer P. (1997). Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics*, 112(4), 1251–1288. <https://doi.org/10.1162/003355300555475>

Knack, S., & Zak, P. J. (2003). Building trust: Public policy, interpersonal trust, and economic development. *Supreme Court Economic Review*, 10, 91–107. <https://doi.org/10.1086/scer.10.1147139>

Knell, M., & Stix, H. (2020). Perceptions of inequality. *European Journal of Political Economy*, 65, 101927. <https://doi.org/10.1016/j.ejpoleco.2020.101927>

Knell, M., & Stix, H. (2021). Inequality, perception biases and trust. *Journal of Economic Inequality*, 19, 801–824. <https://doi.org/10.1007/s10888-021-09490-x>

Kriekhhaus, J., Son, B., Bellinger, N. M., & Wells, J. M. (2014). Economic inequality and democratic support. *Journal of Politics*, 76(1), 139–151. <https://doi.org/10.1017/s0022381613001229>

Kuziemko, I., Norton, M. I., Saez, E., & Stantcheva, S. (2015). How elastic are preferences for redistribution? Evidence from randomized survey experiments. *American Economic Review*, 105(4), 1478–1508. <https://doi.org/10.1257/aer.20130360>

Kyriacou, A., & Velásquez, F. (2015). Inequality and culture in a cross-section of countries. *Journal of Institutional Economics*, 11(1), 141–166. <https://doi.org/10.1017/S1744137414000186>

Litwiński, M., Iwański, R., & Tomczak, Ł. (2023). Acceptance for income inequality in Poland. *Social Indicators Research*, 166, 381–412. <https://doi.org/10.1007/s11205-023-03072-2>

Loveless, M. (2013). The deterioration of democratic political culture: Consequences of the perception of inequality. *Social Justice Research*, 26, 471–491. <https://doi.org/10.1007/s11211-013-0198-7>

Medve-Bálint, G., & Boda, Z. (2014). The poorer you are, the more you trust? The effect of inequality and income on institutional trust in East-Central Europe. *Sociologický Časopis / Czech Sociological Review*, 50(3), 419–454. <https://doi.org/10.13060/00380288.2014.50.3.104>

Michalos, A. C. (1985). Multiple discrepancies theory (MDT). *Social Indicators Research*, 16(4), 347–413. <https://doi.org/10.1007/BF0033288>

Mishler, W. & Rose, R. (2001). What are the origins of political trust: Testing institutional and cultural theories in post-communist societies. *Comparative Political Studies*, 34(1), 30–62. <https://doi.org/10.1177/0010414001034001002>

Navarro-Carrillo, G., Valor-Segura, I., & Moya, M. (2018). Do you trust strangers, close acquaintances, and members of your ingroup? Differences in trust based on social class in Spain. *Social Indicators Research*, 135, 585–597. <https://doi.org/10.1007/s11205-016-1527-7>

OECD. (2019). *Under pressure: The squeezed middle class*. OECD Publishing. <https://doi.org/10.1787/689afed1-en>

OECD. (2021). *Does inequality matter? How people perceive economic disparities and social mobility*. OECD Publishing.

OECD. (2022). *Trust in government*, <https://www.oecd.org/en/data/indicators/trust-in-government.html>

Paldam, M., & Svendsen, G. T. (2001). Missing social capital and the transition in Eastern Europe. *Journal of Institutional Innovation, Development and Transition*, (5), 21–34.

Piątkowski, M. (2023). *Złoty wiek. Jak Polska została europejskim liderem wzrostu i jaka czeka ją przyszłość*. Prześwity.

Piketty, T. (2015). *The economics of inequality*. Harvard University Press.

Qiang, R., Li, X., & Han, Q. (2021). The relationship between social class and generalized trust: The mediating role of sense of control. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.729083>

Rothstein, B., & Stolle, D. (2008). The state and social capital: An institutional theory of generalized trust. *Comparative Politics*, 40(4), 441–459. <https://doi.org/10.5129/001041508x12911362383354>

Rothstein, B., & Uslaner, E. M. (2005). All for all: Equality, corruption, and social trust. *World Politics*, 58(1), 41–72. <https://doi.org/10.1353/wp.2006.0022>

Rueda, D., & Stegmüller, D. (2019). *Who wants what? Redistribution preferences in comparative perspective*. Cambridge University Press.

Shuai, J., Yue, H., & Tianguang, M. (2024). Why economic inequality undermines political trust: An analysis of mechanisms. *Public Opinion Quarterly*, 88(2), 337–358. <https://doi.org/10.1093/poq/nfae013>

Stiglitz, J. E. (2015). *The great divide: Unequal societies and what we can do about them*. W. W. Norton & Company.

Szirmai, A. (1988). *Inequality observed: A study of attitudes towards income inequality*. Avebury.

Szczepaniak, M. (2024). Examining the determinants of Poland's middle class life satisfaction. *Social Indicators Research*, 172, 191–218. <https://doi.org/10.1007/s11205-023-03291-7>

Szczepaniak, M. (2025). Perceptions of income inequalities by young adults in Poland. In M. Osińska (Ed.), *Economic challenges and young adults. Perspectives from Germany, Poland and Czechia* (pp. 122–144). Routledge.

Szczepaniak, M., Osińska, M., & Koubaa, S. (2025). Exploring subjective income inequality in Europe and MENA regions. *Bulletin of Geography. Socio-economic Series*, 67, 55–71. <https://doi.org/10.12775/bgss-2025-0004>

Tabellini, G. (2010). *Culture and institutions: Economic development in the regions of Europe*. CESifo Working Paper, 1492; IGIER Working Paper, 292. <https://doi.org/10.1111/j.1542-4774.2010.tb00537.x>

Uddin, N. (2025). Exploring the effects of inequality on social trust in the United States. *Discover Psychology*, 5, 18. <https://doi.org/10.1007/s44202-025-00344-5>

Vaughan-Whitehead, D. (Ed.). (2016). *Europe's disappearing middle class? Evidence from the world of work*. Edward Elgar. <https://doi.org/10.4337/9781786430601>

Wilkinson, R., & Pickett, K. (2011). *Duch równości. Dlaczego bardziej egalitarne społeczeństwa zawsze radzą sobie lepiej*. Wydawnictwo Czarna Owca.

Williamson, C. (2009). Informal institutions rule: Institutional arrangements and economic performance. *Public Choice*, 139(3/4), 371–387. <https://doi.org/10.1007/s11127-009-9399-x>

Williamson, O. E. (2000). The new institutional economics taking stock looking ahead. *Journal of Economic Literature*, 38(3), 595–613. <https://doi.org/10.1257/jel.38.3.595>

Wroe, A. (2016). Economic insecurity and political trust in the United States. *American Politics Research*, 44(1), 131–163. <https://doi.org/10.1177/1532673X15597745>

Zak, P., & Knack, S. (2001). Trust and growth. *Economic Journal*, 111(470), 295–321. <https://doi.org/10.1111/1468-0297.00609>

Zmerli, S., & Castillo, J. C. (2015). Income inequality, distributive fairness and political trust in Latin America. *Social Science Research*, 5, 179–192. <https://doi.org/10.1016/j.ssresearch.2015.02.003>

Zmerli, S., & Newton, K. (2008). Social trust and attitudes toward democracy. *Public Opinion Quarterly*, 72(4), 706–724. <https://doi.org/10.1093/poq/nfn054>