INCOME INEQUALITY AND TRUST

Alena Mojsejová – Miroslava Pastulová

Abstract

Current research indicates negative relationship between income inequality and trust in institutions. However, several authors did not confirm this relationship, or showed the opposite. We used survey data to examine this relationship and formulate hypotheses. We found out that in Slovakia we cannot confirm this relationship, as it is not statistically significant. Higher income groups generally exhibit higher levels of trust. Perceptions of income inequality have a substantial impact on trust, particularly among those who support greater inequality. Conversely, lower income groups tend to have lower levels of. The effects of perceptions of income inequality on trust are mixed, varying depending on one's views about income disparities.

Key words: income inequality, trust in government, trust in the EU, logit model

JEL Code: D31, Z13, C25

Introduction

Income inequality becomes one of the greatest challenges facing the world. In recent years the topic dominated in many national and international forums. One of the goals of the Agenda 2030, the Goal 10. Reduce inequality within and among countries, is to combat against any form of inequality (Agenda 2030). Increasing income inequality has been associated with many consequences, e.g. it can heighten political polarization, limit access to quality education for marginalized groups, disparities in healthcare outcomes, and a decrease in social cohesion. For example, studies have shown that countries with significant income gaps often face challenges in fostering a sense of unity among their citizens, which can lead to social unrest and hamper overall economic growth.

Income inequality can indeed result in heightened distrust among individuals, as the perception of unfairness and social division can erode trust in institutions and other members of society. This lack of trust can lead to a breakdown in social cohesion, hinder collaboration, and impede efforts to address shared challenges effectively. For instance, in communities with high income inequality, individuals may be less likely to trust each other or believe in the fairness of the system, which can undermine social harmony and cooperation (Boda&Medve-Bálint, 2014; Bienstman, 2023).

The relationship between trust and income inequality is a complex and multifaceted issue. Research suggests that higher levels of income inequality within a society can lead to lower levels of trust among its citizens (Medve-Bálint& Boda, 2014; Mingo & Faggiano, 2020) This lack of trust can manifest in various ways, such as decreased social cohesion, increased social tensions, and reduced cooperation among individuals. Conversely, societies with lower levels of income inequality tend to have higher levels of trust among their citizens, leading to greater social harmony and cooperation. It is important to note that the relationship between trust and income inequality is influenced by various factors and can vary depending on the specific context.

In this paper we would like to shed light to the nexus between the income inequality and trust, as there many studies and various authors came with the contradictory conclusions. In this article, we will focus on the relationship between trust in the government and European Union and income inequality in Slovakia, since similar studies have not been carried out so far. The paper is structured as follows. Section 1 presents review of the existing literature, section 2 provide some empirical evidence from the survey data, in the section 3 we present the model and the interpretation of the results, and final section concludes our findings.

1 Literature review

OECD defines trust as “a person’s belief that another person or institution will act consistently with their expectation of positive behaviour”. Income inequality is defined as the difference in how income is distributed among the population. (OECD, 2024).

Trust in the government and its institutions is the basis for the legitimacy and sustainability of political systems. It is also a fundamental component of social and economic progress and enables public authorities to implement policies and provide services (United Nations, 2021). It is the basis for the fair and efficient functioning of government institutions and is necessary for the provision of basic services to the public such as the judiciary or infrastructure. With higher public trust, compliance with regulations improves, tax evasion or the occurrence of stowaways in the use of public goods is reduced (OECD,2013; Stiglitz et al., 2018). The author Papaioannou (2013) also proves in his study that trust is also very important for the economic growth of the country. The author also claims that trust is highly correlated with other indicators such as life satisfaction, economic efficiency, innovation, the absence of corruption and bureaucracy or even quick lawsuits. The results of another study also indicate that the level of perceived corruption negatively affects trust in the national government and the level of GDP per capita (Melios, 2020).

Thanks to trust in the government, investors are more willing to make decisions for business investment, which is the basis for creating jobs and increasing economic growth (Stiglitz et al., 2018). Confidence can help governments implement structural reforms in the long term. Many reforms involve sacrificing short-term gratification, and an environment of high trust is needed for their rapid adoption and implementation. Another important insight is that while trust takes time to build, trust can be lost quickly. Such a loss of trust could lead to reluctance to comply with the law or high tax evasion, which could lead to reduced government revenues and increased costs (OECD,2013).

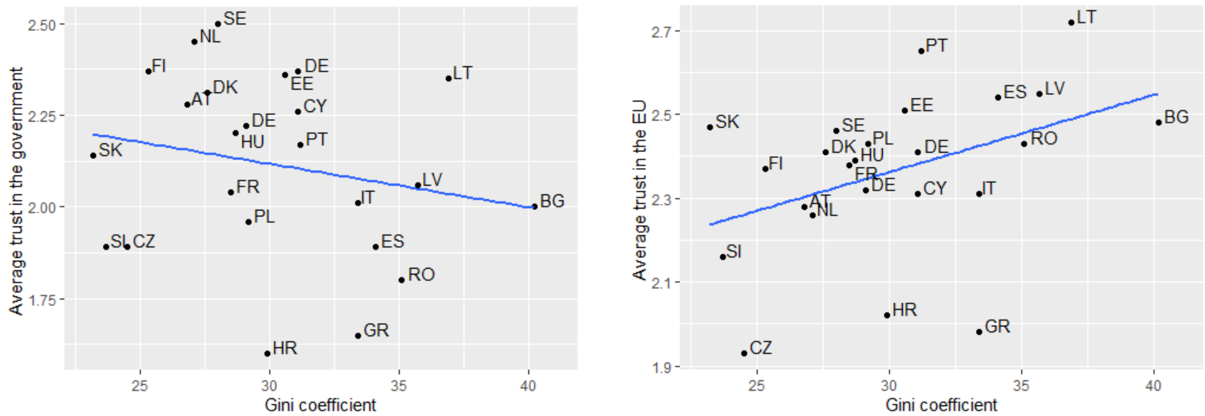
Current literature indicates negative association between the institutional trust and the value of the Gini coefficient within the country (Goubin and Hooghe, 2020; Mingo and Faggiano, 2020; Lipps and Schraff, 2021; Zmerli and Castillo, 2015). Meer (2010) discovered that in a study of 26 European countries, higher household income deciles were associated with lower levels of institutional trust. This association is based on assumption that level of income inequality depends on government decisions as citizen's attribute responsibility for the higher income inequality to the government. However, this relation is currently not certain as some studies did not find it statistically significant (Olivera, 2015; Steijn and Lancee, 2011; Kim et al., 2022).

2 Empirical findings about the income inequality and trust

In our work, we use the data package created by the organizations World Values Survey Association and the European Values Study from 2022. The Joint EVS/WVS includes data from 92 countries and territories. The European Value Study (EVS) and the World Value Survey (WVS) are two large-scale, cross-national, and repeated cross-sectional survey research programs. They include a large number of questions, which have been replicated since the early eighties EVS/WVS (2022). We selected data related to trust and income inequality from the database.

Firstly, to verify the hypotheses about the relationship mentioned in the previous research, we plotted the relationship between the Gini coefficient and average institutional trust per country (Fig. 1). Our variables of trust are *confidence in the government* and *confidence in the European Union*. The question was formulated as follows: "Please look at this card and tell me, for each item listed, how much confidence you have in them, is it a great deal, quite a lot, not very much or none at all?" We observe a negative association of trust in government and income inequality in line with the studies mentioned in the section 1, indicating that as the Gini coefficient increases (higher income inequality), institutional trust tends to decrease (see the picture on the left). Nordic countries (e.g., Sweden, Denmark) show lower Gini coefficients and higher levels of institutional trust. Southern and Eastern European countries (e.g., Greece, Bulgaria) would show higher Gini coefficients and lower levels of institutional trust. In Slovakia we can observe a low value of income inequality and, at the same time, not the high. level of trust. Negative relationship is not extremely significant and therefore we cannot be sure of its existence. On the other hand, relation between the Gini coefficient and trust in the European Union is shown to be positive (see the picture on the right). Thus, this observation does not correspond with previous studies.

Fig. 1: Relation between the institutional trust and Gini coefficient in Europe



Source: authors' calculations based on EVS/WVS and Eurostat data

Based on the literature and on our observation supported with the Fig.1 we formulated two hypotheses:

> Hypothesis 1: There is a negative relation between perceived income inequality and levels of trust in the government.
>
> Hypothesis 2: There is a positive relation between perceived income inequality and levels of trust in the European Union.

3 The model of the relationship between trust and selected variables

The aim of our analysis is to verify the hypotheses, using individual survey data for Slovakia. We will use following variables for the analysis from the EVS/WVS (2022):

1. Trust (Trust_Gov/Trust_EU)

Trust issues were elicited from subjects for different types of people or institutions. Regarding the institutions themselves, the subjects rated the following items: church, armed forces, media, labor unions, police, parliament, civil service, major regional organization, European Union, government, political parties, large companies, environmental movement, judicial system/courts and the United Nations. In this work, we will deal only with trust in the government and trust in the European Union. The question was formulated as follows: *Please look at this list and tell me for each item listed how much you trust them: very, quite, not very much, or not at all.*

2. Opinion on income inequality

Another important issue for this work is subjective income inequality. Respondents answered the question of inequality on a scale from 1 to 10. The question was formulated as follows: *On this card you can see a number of opposing views on various problems. How would you place your opinions on this scale?*

1. Incomes should be more equal

10. We need greater income disparity than incentives

Since our question is a comparison of income inequality, we assume that respondents who placed their answer on the border of any of the answers are not satisfied with income redistribution. Based on this assumption, we remapped the answers located in the middle of the scale (5,6) to the value 0, which will be our reference value. Our intention is to compare respondents who are satisfied with redistribution (answers 5,6) with respondents experiencing income inequality (answers 1,2,3,4) and respondents who prefer greater redistribution of income (answers 7,8,9,10).

3. **Income group** – ordinal variable: income group including all wages, salaries, pensions and other incomes after taxes and other deductions: first to tenth decile, self-evaluation of the respondent.

At first, we used ordinal logit model, however due to the rejection of proportional odds assumption we decided to transform our variable into a binary form. Responses “none at all” and “not very much” were transformed into distrust (0) and responses “quite a lot” and “great deal” were transformed into Trust (1). Therefore, we used a binary logit regression. The results are in the Table 1.

Tab. 1: Binary logit models explaining trust in the government and trust in the European Union in Slovakia.

	Model Trust_Gov^{SK}	**Model Trust_EU^{SK}**
	Coef. (SE)	Coef. (SE)
Income group: (ref. 1st decil)		
2nd decil	0.56 (0.33)	-0.41 (0.30)
3rd decil	0.24 (0.36)	-0.45 (0.32)
4th decil	0.81* (0.38)	-0.65 (0.34)
5th decil	0.50 (0.38)	-0.50 (0.34)
6th decil	0.77 (0.42)	-0.57 (0.38)
7th decil	0.61 (0.43)	-0.11 (0.38)
8th decil	0.83 (0.45)	-0.23 (0.41)
9th decil	0.27 (0.58)	-0.15 (0.49)
10th decil	0.75 (0.76)	-0.66 (0.60)
Income inequality: (ref. 0)		
1 (Income should be more equal)	0.06 (0.33)	-0.37 (0.29)
2	-0.74* (0.34)	-0.63* (0.30)
3	-0.07 (0.26)	0.08 (0.24)
4	0.20 (0.28)	0.41 (0.26)
7	-0.20 (0.31)	0.37 (0.28)
8	-0.11 (0.35)	-0.03 (0.32)
9	-0.29 (0.55)	-0.26 (0.50)
10 (We need larger differences)	-0.55 (0.40)	0.48 (0.35)

Source: authors' calculations

In the Table 1 are the results of the performed logistic regression. We can see that the variables used in the model are not statistically significant with the exception of a few values. Therefore, we cannot confirm the hypothesis and the relationship between income inequality and trust in the government and the EU for Slovakia. We will summarize at least few interesting findings.

Interpreting logistic regression results involves understanding how each predictor variable affects the odds of the dependent variable. In your case, the dependent variable is trust, in two models: Trust_GovSK and Trust_EUSK, each with coefficients for income groups and income inequality perceptions. For the variable "Income group", we have coefficients for each decile compared to the reference group (1st decile). Individuals in the 2nd decil have higher trust in government in Slovakia compared to those in the 1st decil. The positive coefficient suggests increased odds of trust. Individuals in the 4th decil have even higher trust, with odds being e^0.81≈2.25 times higher than the 1st decil. This coefficient is statistically significant.

For non-significant coefficients (e.g., 3rd decil, 5th decil, etc.), the changes in odds are not statistically significant, so their impact on trust is less clear. Individuals in the 2nd decil have lower trust in the EU compared to the 1st decil. The negative coefficient indicates decreased odds of trust. Individuals in the 4th decil have $e^{(-0.65)} \approx 0.52$ times lower chance of trust compared to the 1st decil, indicating significantly lower trust. Again, the coefficients for other deciles are not statistically significant, so their impact on trust is not definitive. For the variable "Income Inequality," we compared perceptions of income equality to the reference category (perceptions that income should be more equal). People who believe income should be more unequal have significantly lower trust in government in Slovakia. The odds ratio $e^{(-0.74)} \approx 0.48$ indicates a 52% reduction in odds of trust. Similarly, those who think we need larger income differences have lower odds of trust, with $e^{(-0.55)} \approx 0.58$, meaning a 42% reduction in odds. Non-significant coefficients should be interpreted with caution as they may not provide reliable insights.

Conclusion

Rising inequality is often considered as one of the most significant challenges facing democracy in the 21st century. According to the current research there exists the relationship between income inequality and trust. In order to shed light on this issue we focused on how the income inequality measured by subjective measures, income group and income inequality perception, can influenced trust. The empirical analysis has revealed that in Slovakia we cannot confirm this relationship, as it is not statistically significant. However we came to some conclusions. Generally, higher income groups tend to have higher trust, with notable increases for the 4th and 6th deciles. Perceptions of income inequality significantly impact trust, especially those favoring more inequality. Higher income groups generally have lower trust, particularly noticeable in the 2nd and 4th deciles. Perceptions of income inequality also have significant effects, with a mixed impact depending on the belief about income differences.

Trust in institutions is crucial for a healthy and thriving economy for several reasons. When citizens trust institutions, they are more likely to believe that rules, regulations, and laws will be enforced consistently, which creates a stable and predictable business environment. This stability encourages investment, innovation, and entrepreneurship. When individuals and businesses trust institutions, they are more likely to engage in economic activities without worrying about corruption, bribery, or other forms of exploitation.

The rise of populist and radical parties in recent years has been significantly influenced by increasing income inequality. Research by Bienstman, S. (2023), Coffé et al. (2007), Engler & Weisstanner (2021), has highlighted how disparities in income distribution can fuel grievances and amplify feelings of disenchantment with traditional political establishments. This is also one of the consequences of the relationship between income inequality and trust, which deserves a deeper analysis.

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Contact

Alena Mojsejová
Technical University of Košice
Faculty of Economics
Nemcovej 32, Košice
alena.mojsejova@tuke.sk

Miroslava Pastulová
Technical University of Košice
Faculty of Economics
Nemcovej 32, Košice
pastulova@icloud.com