Lund University
Department of Political Science

STVK02
Tutor: Anders Sannerstedt

Political Trust and Economic Inequality

An Examination of Political Trust and Economic Inequality in 29 European Countries

LUND UNIVERSITY

Jonas Fallenius

ABSTRACT

This study investigates the relationship between political trust and income inequality in 29 European countries, using Easton's (1975) trust-as-evaluation approach. The theoretical basis consists of Easton (1975) and Rothstein's (2011) Low Trust-Corruption-Inequality trap theory. Political trust is operationalized through, trust in parliament, legal system, and police, whilst economic inequality is operationalized as Gini coefficient and unemployment in the labor force. The study uses a fixed effects model, after a Hausman test is run. The model has two iterations, a standard model and an expanded model which includes regional division and controls for Rothstein's notion that universal social programs promote political trust. It is concluded that economic inequality has a conflicting effect on political trust, positive for Gini and negative for unemployment in the labor force. This follows the results in the literature at large, moreover, there is some evidence in favor of the idea that universal social programs promote political trust. However, the results are not clear, but rather conflicting. As such the study opens for further research into the effect of economic inequality, universal social programs, and for expanded models which include cross-continental data.

Key words: Trust, inequality, Europe, Gini, regression
Words: 9809

Table of Contents

1. Introduction

1.1 Introducing the Study

Trust between government and individuals is a fundamental characteristic of any functioning democracy. Although, this idea goes back in time before modern democracies existed (Clay, 1835:42), its importance was recently put forward by the 44th president of the United States of America, Barack Obama:

If the people cannot trust their government to do the job for which it exists – to protect them and to promote their common welfare – all else is lost (Obama, 2006).

However, what shapes this trust, which throughout this text will be referred to as political trust is not clear. In the light of the COVID-19 pandemic, which in many cases has had an eroding effect on trust between governments and the people, this study seeks to understand the relationship between political trust and, what can be considered central for common welfare, economic inequality. This, as economic conditions are ever present and effects all within a society. The study will focus on 29 countries across Europe (see appendix for full list of countries) between the period 2014-2022. The dependent variable, political trust, will be measured in three ways, and accordingly there will be three separate models all using panel data. The models will have two iterations where the second includes controlling for region and specific country characteristics. Economic inequality, which is the main explanatory variable will be measured in two ways. The theoretical context of the study is the trust-as-evaluation approach presented by Easton (1975), which mainly provides the methodological approach, and Rothstein's (2011) theory on political trust and inequality.

1.3 Purpose and Research Question

The purpose of this study is to understand the relationship between the two main variables, political trust and economic inequality, across 29 European countries (see appendix 1 for full list of countries). Nonetheless, the overarching problem this study will investigate is:

Does economic inequality significantly effect trust-as-evaluation measures between 2014-2022 in Europe?

However, to concretize the research question further, in the context of the literature and theory on the subject, which will be presented and discussed below, two hypotheses will be set up (see chapter 3).

1.4 Literature Review

This chapter will present the previous literature on the subject and discuss thematic tendencies within it. Literature has mainly been gathered from LubSearch and Google scholar. There have been no preferences on the publication year of material. however, “peer review” has been a requirement when searching for material, as this guarantees the quality of the content. Furthermore, search words such as, “political trust”, “income distribution”, “income inequality” and “trust in government” have been frequently used. When searching for previous literature, that which regards supernational political trust has been excluded. This type of literature deals with trust in the European Union and other sorts of supernational institutions, for an example see Lipps and Schraff (2020).

1.4.2 Literature on Political Trust

In the literature, there is a tendency toward exploring the effect of economic inequality on political trust. However, how authors choose to do so can be divided into two main schools of thought. First, there is, what I have chosen to call, the school of perception. Here, the focus lies on how individuals perceive the performance of government or the political system at large, where mainly economic (income) inequality or economic performance in society is where the focus lies. The goal of these studies is to use individuals' own evaluation of their perceptions of their economic situation to understand how it affects political trust. Here, the actual economic performance of the country at hand is not of great importance. For examples of these types of studies see Chi et al. (2013), Zmerli and Castillo (2015), Goubin and Hooghe (2020) and Loveless (2016).

There is another tendency in the literature, which is to focus on actual economic performance. Scholars studying this field seek to understand how actual economic performance, mainly on the macro-level, affects political trust within countries (Cusack, 1999; Clarke et al, 1993; Oskarsson, 2010; Hakhverdian Mayne, 2012; Andersson - Singer, 2008). Although macro-level economic indicators are mainly used, some authors use both macro- and micro-level indicators to get a more holistic picture, for example seen in, Lee et al. (2020) and Hakhverdian and Mayne (2012). Nonetheless, there is a lack of consensus in this field of study. Some scholars such as Cusack (1999), Zhou and Jin (2020), and Clarke et al. (1993) find

that macroeconomic performance impacts political trust regardless of individuals' evaluation of it, whilst others such as Oskarsson (2010) and Hakhverdian and Mayne (2012) find no such relationship. See van der Meer and Hakhverdian (2016: 84) for a detailed examination. It is important to be aware of these differences.

One article that seeks to solve the problem of causality is Bergh and Bjørnskov's (2014). They investigate and try to understand the causality between welfare states, income inequality, and political trust. This is done through a large panel data set, from 2002 to 2006. By using regression models and further causality testing they find support for the notion that welfare states lead to lower net inequality. However, a key finding of theirs is that this does not necessarily feed into higher trust in these states. Although these are useful findings to consider when conducting this study, it should be noted that Bergh and Bjørnskov (2014) focus on a particular type of state - Nordic welfare states - as such implications of their findings need to be used carefully.

Methodology tendency in the literature, no matter what school of thought they belong to, is that they mostly use a multi-country data set. Noteworthy, is also that authors do not tend to mix data sets between mixing regions. That is to say, some focus on Europe, some on Asia, and some on the Nordic countries (See Goubin - Hooghe, 2020; Zmerli - Castillo, 2015; Lee et al, 2020 - Bergh - Bjørnskov, 2014). While few, although some for-example Chi et al. (2013), Zhou and Jin (2018), and Cusack (1999) study a single country. While studies covering larger amounts of countries tend to focus on Europe or Latin America (Anderson - Singer, 2008; Goubin - Hooghe, 2020; Oskarsson, 2010; Bergh - Bjørnskov, 2014; Zmerli - Castillo, 2015)

Furthermore, their methods are alike in the sense that they use multilevel models to explore their respective problems. However, they differ in their operationalization. For example, Goubin and Hooghe (2020) operationalize inequality as the Gini-coefficient and P90/P10 ratio (Goubin - Hooghe, 2020:226), whilst Zmerli and Castillo (2015) use income level, education, and employment rate (Zmerli - Castillo, 2015:179). Although these measures are unlike in some sense, it shows the propensity in the literature to use macro-level metrics, as opposed to micro-level.

To my knowledge, there is a severe lack of cross-continental comparative studies in the literature. The reason for this is unclear, perhaps it is a question of data availability between continents. Nonetheless, there is surely a hole to be filled with cross-continental comparative studies. This study will use performance evaluation measures and try to explain them through actual measures of economic inequality in the form of Gini coefficient, further I will make an effort in using regional division as an explanatory factor.

1.5. Economic Inequality

The study will use two measures of economic inequality. The first measure is the Gini-coefficient or index (Gini) which is a measure of income inequality. It measures the spread of income across households compared to a perfect distribution. It measures between 0-1 or as a percentage, where 0 (0%) reflects perfectly equal income spread across households, and where 1 (100%) corresponds to a perfectly unequal income spread (all income held by one household). This is done by comparing a Lorenz curve to a hypothetical line of perfect equality, the area between these curves defines Gini for the country in question.

There are several ways that Gini can be calculated, using different ways of assigning an income to a household. The World Bank note that comparison between the methods is somewhat problematic and that their data collection has been as standardized as possible to counteract this problem (World Bank, 2022a). The other way that economic inequality will be measured is through unemployment. Here it will be measured as the percentage of unemployment in the labor force. Where the labor force is the sum of employed and unemployed people within a given population (World Bank, 2022b). Data from this measure will also come from the World Bank

2. Theory

This chapter will introduce the theory that the remaining discussion in this study will be based upon. It will begin with theory on trust, then political trust and Easton's (1975) trust-as-evaluation approach, thereafter, Rothstein's (2011) theory on political trust will follow. Lastly, reflections and critical perspectives on the theory will be presented. The theory will be reconnected to when analyzing the results.

2.1 Trust

Although most of us have an idea of what trust is, it is useful to establish a conception of it in order to ensure that its meaning is clear for its further use in this study. van der Meer and Hakhverdian present a neat conceptualization of trust in an article from 2017. Here, they present an understanding of what constitutes the nature of trust:

> *Trust constitutes a subjective evaluation of a relationship between a subject (the one who trusts) and an object (the one who is trusted): "A trusts B to do x".* (van der Meer - Hakhverdian, 2017:83).

This understanding of trust is simple yet captures the fundamentals aspects of the concept that are important to understand. Van der Meer and Hakhverdian add that given the nature of trust, we ought to look for characteristics in the subject (the one who trusts) when trying to understand how trusts between the subjects and objects evolve and are maintained. (van der Meer - Hakhverdian, 2017:83).

2.2 Political Trust

Political trust is the measure of to what extent individuals trust the political system that they operate within. Trust in this case is based on the definition put forward above. However, when it comes to political trust William Gamson (1968) adds "The probability…that the political system (or some part of it) will produce preferred outcomes even if left unattended." (Gamson, 1968, cited by Easton, 1975:447). This is important as a political system without, or with declining trust represents a tear between the political system and the people (Lee et al, 2020:68).

Thus, leaving the system vulnerable. In the framework, Easton describes the political system as consisting of all public officials, from legislators and politicians to judges and police officers (Easton, 1975:438).

Trust is an issue that has been widely discussed in political science and in the literature. Subsequently, there are several approaches and understandings of trust, more specifically political trust within the literature. As such it is important to specify what theoretical grounds will be used in this study. In this study, an approach known as the "trust-as-evaluation" will be used as a theoretical basis and guiding light for the models and operationalizations. This approach is grounded in the insight put forward by David Easton in his article "A Re-assessment of the Concept of Political Support" (1975). The main theoretical arguments he relays that are relevant to this study he presents in his discussion on trust. Here, he puts forward the idea that over time outputs - performance - shape trust or the lack thereof, and that the (dis)trust loses its connection to the incumbent authorities of the political system and transfers into a generalized trust in the system (Easton, 1975:448). Further, Easton stresses that when measuring trust-by-evaluation it is important that those who are evaluating know to whom the evaluation applies (Easton, 1975:450). This theory is highly relevant for this study as it sets a theoretical basis for one of the tendencies discussed in the literature review. - using evaluation as a measure of trust (see Chi et al, 2013; Zmerli - Castillo, 2015; Goubin - Hooghe, 2020; Loveless, 2016).

Although the discussion and theory on political trust that Easton presents are largely irrelevant, some relevant ideas are put forward. For instance, Easton stresses the importance of the causal link between the people's evaluation of the performances and the political system (Easton, 1975:438). If there is no such link, there is little reason to believe that performance would affect trust in it (ibid).

2.3 The Low-Trust-Corruption-Inequality Trap

In the book, The Quality of Government - Corruption, Social Trust, and Inequality in International Perspective by Bo Rothstein (2011), he presents a theory on the consequences of low trust within societies, which he calls the low-trust-corruptioninequality trap. By describing the game-theoretical nature of trusting government institutions Rothstein captures a core element of the theory. He describes how there is no point in being the only one who trusts the legal system, pays taxes, and recycles as it is not rational since there is no gain to be had when doing so alone (Rothstein, 2011:148). This idea sets the foundation for the rationality of political trust, and for the point of his theory. The problems emerge when there is no trust or when the level of trust diminishes. As Rothstein claims it cannot easily be restored, which is what he calls a "social trap", which can lead to a negative circle (ibid). The negative circle alludes to countries with initially low levels of trust and/or economic inequality. These countries are unlikely to implement universal social programs, which is presented as the main antidote to

distrust and inequality since the people do not trust the government with resources (tax). Further, corrupt countries tend to only favor those who show loyalty to the leader as opposed to all of society, and because higher taxes are required to implement universal social programs they are not implemented (Rothstein, 2011:154, 156). He goes on by describing the circle in more detail, in corrupt countries resources tend to be transferred away from the government. The result of the lack of resources is lowered wages for government employees, thus corruption among government officials increases, further lowering political trust (Rothstein, 2011:156). The result of this is that inequality is not addressed, corruption increases, and political trust diminishes (Rothstein, 2011:153-154).

The other side of the coin reflects a positive circle. He describes how people who generally trust others in society tend to trust democratic institutions more (Rothstein, 2011:147). Further he argues that societies with higher trust have better functioning democratic institutions, more economic growth, and less corruption. He proposes that societies where the government and political system at large produce and exercise public power in a way that is "trustworthy, incorrupt, honest" (Rothstein, 2011:150) generate trust (ibid). Although what constitutes this type of behavior is not specified, one can assume that universal social programs such as childcare would be one as it is discussed as a promoter of trust (Rothstein, 2011:158). As such universal social programs will be operationalized using universal child benefits.

One crucial point presented by Rothstein is that the level of trust in different government institutions varies. Rothstein claims that individuals generally trust institutions involved with legal practice, courts, police, and others, the most. This is because their tasks differ from other institutions, in the sense that they detect and punish those who deviate from the "rules of the game" in society (Rothstein, 2011:151). Although these claims may not be surprising, they are of importance for the operationalization of this study. As it points to the importance of differentiating between government institutions, and the utility of using measures of legal institutions. Furthermore, Rothstein points out spending on education as a determinant of generalized trust in government and that political trust is generally lower in post-communist states (Rothstein, 2011:154).

2.4 Problems and Critical Reflections on the Theory

Easton proposes the idea that political trust is determined by the performance of the political system (Easton, 1975). Where his notion of trust is rooted in Gamson's (1968) definition above. Although trust has been defined it is also important to understand that time plays a major role in its formation, argues Easton, as the experience (performance) overtime may be what results in trust Easton (1975:449). He also discusses how trust may depend on a process of socialization, where individuals are expected to support the incumbent political authorities as that is

one's "civic duty" (Easton, 1975:448). He continues by discussing how these ideas can grow stronger over time as positive or negative perceptions can shape the overall perception of the system (Easton, 1975:449), thus the value of comparing the objective measures of performance might lose its value when seeking to understand political trust.

Rothstein discusses the problems of assuming linear causality between variables such as trust, corruption, inequality, and others. He claims that they might not be easily modeled through linear relationships, but rather that they can be described through path-dependency and feedback mechanisms, thus erasing the distinction between dependent and explanatory variables (Rothstein, 2011:146). Similarly, Easton points to the difficulty of measurement problems when it comes to trust-as-evaluation. As these metrics are constructed from the micro-level, individuals evaluating, they are resource-intense to produce. With that follows a general lack of data which in turn hinders research.

One problem with Rothstein's notion of the low-trust-corruption-inequality trap is that it assumes universal social programs to be the solution to the problem of inequality as opposed to needs-based programs. He argues that these programs generate distrust, stigma, and negative conceptions of government institutions (Rothstein, 2011:150-153, 158). The problem with this lies not with the idea itself but with how it can be tested and understood empirically. Take Sweden for an example of this difficulty, Sweden's social system is universal for example when it comes to child support but needs-based on housing allowance (Försäkringskassan, 2022). This creates ambiguity for the researcher trying to test this idea as a problem of classifying different societies arises, due to a lack of precision in the theory.

3. Hypothesis

Given the theoretical framework put forward in the section above, two hypotheses will be present two hypotheses below. One alludes to the trust-as-evaluation school of thought. As there is no consensus on if there is a significant effect from measures of economic inequality, hypothesis 1 will aim to answer this question. Hypothesis 2 is connected to Rothstein's Social Trap theory. However, it will not focus on corruption as its effect on political trust has been widely documented by other researchers in the literature (see van der Meer – Hakhverdian, 2017; Lee et al, 2020; Oskarsson, 2010; Goubin - Hooghe, 2020, among others). The hypothesis will instead investigate Rothstein's claim that universal social programs have a positive effect on trust in government (Rothstein, 2011:154). The main goal of the hypotheses is to concretize the research question considering the theory and literature on the subject.

Hypothesis 1: Increased income inequality leads to lower political trust in the 29 included countries.

Hypothesis 2: Having universal social programs has a positive effect on political trust in the 29 included countries.

4. Research design

The main method used in the study are panel data regressions. Thus, these will be discussed, along with the positive effects of using them, as well, as limitations of this sort of method. Further, relevant tests that will be performed on the data will also be discussed.

4.1 Panel Data Regression

Panel data is a form of data that combines time-series with cross-sections. An observation of a cross-section over time allows for phenomena to be observed with a greater number of analysis units than time-series and cross-sectional data alone (Nirmal Ravi Kumar, 2020:11). As it is important for the study to isolate the effect of Gini and unemployment in the labor force on political trust, this type of data has been chosen. The main advantage of panel data relevant to this study is the amount of data included in the model per time-series. This means that the model will compare data within countries for a given point in time with another point at another time, in the search for correlation (Nirmal Ravi Kumar, 2020:10).

When conducting a study on panel data one must choose between including a fixed or random effects model. The other alternative is to use a so-called Pooled Ordinary Least Squares (OLS) approach; however, this approach does not take any individual (in this case country) specific effects into account, thus the errors in this type of model are completely random (Baltagi, 2020:362, 374). Thus, Pooled OLS does not make sense for this study as country specific effects tend to be consistent over time (ibid). Due to this fact the Pooled OLS approach has been rejected when choosing method for this study.

The choice between a random or fixed effects model is a choice between the construction of the individual specific effect, which are specified in what is known as The Error Component Model. This model adjusts the error terms of the model by applying attributes specific to that individual into the error component – the error component model. This can be done for the cross-section and period or both. Hence, there are three possible constructions of the error component model. One-way model with individual specific effects: adjusts the cross-section, and is constant over period but varies between individuals, one-way model with time specific effect: adjusts the period and constant over individuals but varies between time periods, and the two-way model: adjusts period and cross-section, combing the two one-way models. (Baltagi, 2020:358-359).

4.1.2 Fixed and Random Effects Model

In a fixed effects model, that is a model were, the explanatory variable(s) are correlated with the individual specific effect, in other words the conditional expectation of the error term given the explanatory variable is not assumed to be zero. This type of estimator works by assigning dummy variables (see 4.2.4) to each observation, which in turn, means that the intercept between positive and negative individual specific effects will differ. Important to note in this type of model is the explanatory variable is exogenous to the error term. (Baltagi, 2021:359-362)

When the fixed effects are used in a setting where the explanatory variable are correlated with the individual specific effect the OLS estimates will be consistent (converging as the number of observations increases). However, the fixed effects model works best when there is a large amount of variation in the explanatory variable. (ibid)

A random effects model is a model where there is exogeneity between the explanatory variable and the individual specific effect. That is, the conditional expiation of the error term given the exoplanetary variable is zero. OLS estimates will be consistent and efficient with the random effects model as long as the explanatory variable are exogenous with respect to the individual specific effect. (Baltagi, 2021:363-367)

4.1.3 Panel Data Regression with Dummy Variables

Dummy variables are variables that take on a categoric value, which is used to ascribe an attribute, or not, to an object in a regression. Such attributes can be gender (male or female) or marital status (married or not married). In the case that there are only two possible characteristics the variable is called dichotomous. In the case that there are more than two possible characteristics, for example, region (south, west, north, east) dummy variables must be created for each characteristic, that is turning them dichotomous (SAGE Research Methods, 2012:3). When using dummy variables, one must be cautious of the so called “dummy variable trap”. This trap occurs when all attributes (for example male and female) are ascribed a separate dummy variable which is included in the model. When this is the case, it can lead to observationally equivalent estimates – a model that generates the same outcomes given different coefficients and as such the true coefficients of the model cannot be determined. To avoid the dummy variable trap, the number of dummy variables needs to be one less than the number of attributes (Nirmal Ravi Kumar, 2020:850; Baltagi, 2020:97).

For this study, dummy variables will be used to operationalize regional division, this as the division between Nordic countries and post-communist countries, as discussed in the literature review and, by Rothstein (2011:154). To ascribe characteristics to the subject, the one who trust, as put by van der Meer and

Hakhverdian (2017:83). Dummy variables will also be used to operationalize Rothstein's notion that universal social programs lead to higher political trust (Rothstein, 2001:158). This will be done through a dummy variable that ascribes the characteristic of having a universal child benefit program to those countries who have one.

4.2 Relevant Tests

As discussed above a panel data regression calls for the choice between a random or fixed effects model, as estimates will only be consistent and efficient given that the right error component model is used. Below the relevant test for this choice will be discussed. Further, coefficient interval testing will be discussed as it is relevant to investigating the hypotheses.

4.2.2 Hausman Test

One method of choosing between fixed and random effects is the Hausman test. This test is based on a method which assumes the individual specific effects to be random (H_0*: random effects*). Both estimators (random and fixed) are then used to estimate a coefficient and the results are compared. If the individual specific effects are fixed, the random effects estimator and the fixed effects estimator of a coefficient will not converge to the same value. However, if the specific individual effects are random then the estimators will converge to the same value. By comparing the results one can determine if random or fixed effects should be applied to the model. If the difference is not zero (significantly different from it) it is evidence for fixed effect, if the difference is close to zero it is evidence in favor of random effects. If H_0 is rejected fixed effects should be used, and if it is not rejected random effects should be used. (Eviews.com, 2020a)

When choosing effects, one Hausman test per equation will be conducted, since there are three measures of political trust, four dependent variables, four Hausman tests will be conducted. The results can be found in chapter 6.

4.2.3 Confidence Interval Test

To gain insight into how certain one can be of a result, especially a coefficient, a confidence interval test can be used. A confidence interval is a range in which the true value of an estimate is expected to lie with a certain probability (Kumar, 2020:180). This is done through comparing the estimates to a normal distribution and then using critical values to find within what range a given percentage of the

distribution will lie, often the 95 or 99 percent level is used. The accuracy of estimates of the confidence interval increases with the number of observations. (Baltagi, 2021:34-36). Confidence interval testing will be used to test within what range coefficients relevant for the hypotheses lie.

4.2.4 Omitted Variables Test

When a model is specified, one must choose what variables to include and what to exclude. As stated above this study has chosen to exclude corruption as a variable, due to the extensive coverage of its effect in the literature. Nonetheless, excluding variables comes with a risk which is the problem of omitted variables bias. This problem occurs when a variable that is relevant to a model is not included in it. To investigate if this is the case for corruption an omitted variables test will be performed. The test adds the potential omitted variable to the regression to see if its addition makes a significant difference in explaining the dependent variable, under the null hypothesis that the added variable is not significant. If the null is rejected it indicates that the added variable is significant in explaining the dependent variable, the model therefore suffers from an omitted variable(s) problem. If the null is not rejected the added variable is not significant in explaining the dependent variable (Eviews.com, 2020b)

5. Data and Variables

This chapter will present the data, data collection process, and data problems. Lastly, a full list of the dependent and explanatory variables will be presented, with a description of the variables and the source of the data.

5.1 Operationalization and Data Collection

As previously stated there will be three measurements of political trust for the 29 included countries (see appendix 1 for full list of countries). These will all serve as the dependent variable separately. As such there will be three main regressions. Hence, political trust is operationalized in three ways (see table 1 for detailed description of the operationalization). These operationalizations are based on Easton's (1975:438) idea of what the political system consists of and, Rothstein's idea that legal institutions are trusted more than others (Rothstein, 2011:151). The data for the three measures of political trust all come from the Quality of Governance data set, specifically the standard data set. This data base is put together by researchers at the University of Gothenburg, thus I deem it a trustworthy source of information, which in turn increase the likelihood of measuring what is intended and avoiding systematic errors in the data, increasing the validity and reliability of the data (Heale – Twycross, 2015:66).

As the standard data set contains information for one year each, data for every year has been individually collected separately and put into a panel, for the years 2022, 2020, 2018, 2016, and 2014, as these measures are only available biannually. It would have been desirable for the data on the dependent variable to be available yearly as it would have doubled the number of observations available compared to the biannual data. Although, this arguably means that the study will be based on less-than-optimal amount of data, one could argue that bi-annual data means that there is a "natural" lag in the data. By this I mean that the time between observations allows for differences to manifest. The importance of this is supported by Rothstein (2011:160) as he argues that these sorts of variables are sticky, meaning that changes in them are slight. Nonetheless, a strength of the data, from a theoretical standpoint based on Easton's (1975) theory, is that the questions participants are asked to answer are specific, thus avoiding ambiguity, which the importance of this is stressed by Easton (1975:438). For a detailed account of the questions see Table 1 below.

Economic inequality is operationalized by the explanatory variable, the Gini coefficients and unemployment in the labor force. Moreover, government expenditure on schooling as a percentage of GDP is included. The inclusion of these

variables is based, partly in the literature, as unemployment has been used to operationalize inequality in other studies (see Zmerli - Castillo, 2015:179). Government expenditure on schooling is included to test Rothstein's theoretical notion that spending on education leads to higher political trust (Rothstein, 2011:154). For these variables face validity is high, meaning that it is in some sense obvious that they measure what they are supposed to – economic inequality (Heale – Twycross, 2015:66). The dummy variable measuring if a country has universal child benefits and general satisfaction of democracy. Are included to test Rothstein's notion of these variables separately (Rothstein, 2011, 150, 158).

The data for all these variables (Gini, unemployment, and expenditure on education) all come from the World Banks data base called the DataBank. This data is collected like the dependent variables, that is for 2022, 2020, 2018, 2016, and 2014. For a detailed account of these variables see table 2. Using an institute as the World Bank for data further ensures increased reliability and validity.

5.2 Data Problems

Problems with the data mainly arise from unavailability. The plan for the study was originally to use the years 2002-2018 as those were the indicated year of availability on the Quality of Governance website (Quality of Governance, 2022a, 2022b, 2022c) However, in the actual data sets, there was no information on the years 2002-2012. Although, there are data sets available for the year 2010 and 2008 both these data sets contain damaged data, in the sense that they seem to have been damaged when they were uploaded to the data base. This has been confirmed using multiple units to try and reach them. Due to the limited time in which the study is conducted awaiting these problems to be fixed by the data collectors, The Quality of Governance Institute, has not been an option. The result of this was that the available period, 2014-2022 became the period that I chose to study. Barbara Geddes (1990) argues that if the end of a studied time-series is chosen because of data (un)availability, it can make the conclusions drawn from the data less reliable, that is because when more data is available patterns or relationships which were not present in the data available when the study was conducted might be found (Geddes, 1990:21). However, this is mainly the case when the end point has been chosen, when there is no data available the researcher has no choice. Further, choosing end point due to a particular event in the data would be to choose on the dependent variable, hence, impacting the results (Geddes, 1990:21).

The impact of data (un)availability in this study is hard to measure, a longer time-series and more observations would certainly be preferable, given the stickiness of the dependent variables explained by Rothstein (2011:160). Nonetheless, the choice of end point has not been chosen on ground of events in the data, as such the problems arising from this are mediated.

5.3 Variables

Below all variables used in the models will be listed, with them their name in the regressions, a description of them and their source will also be listed.

5.3.1 Dependent Variables

Table 1: List of Dependant Variables

Variable	Name in regression(s)	Description and source
Trust in the legal system	logtr_leg	Participants are asked to rate on a score of 0-10 how much they personally trust the legal system in their respective country. 0 meaning they do not trust them at all, 10 meaning they have complete trust. The logarithm of average for every country is used. (QoG Standard data set, 2022, 2020, 2018, 2016, 2014)
Trust in the parliament	logtr_parla	Participants are asked to rate on a score of 0-10 how much they personally trust the parliament in their respective country. 0 meaning they do not trust them at all, 10 meaning they have complete trust. The logarithm of average for every country is used. (QoG Standard data set, 2022, 2020, 2018, 2016, 2014)
Trust in the police	logtr_police	Participants are asked to rate on a score of 0-10 how much they personally trust the police in their respective country. 0 meaning they do not trust them at all, 10 meaning they have complete trust. The logarithm of average for every country is used. (QoG Standard data set, 2022, 2020, 2018, 2016, 2014)

5.1.2 Explanatory Variables

Table 2: List of Explanatory Variables

Variable	Name in regression(s)	Description and source
Gini coefficient	gini	A number between 0-1 which measures the degrees to which incomes in the country are distributed among the population. 0 meaning that income is perfectly distributed and 1 means that all income is held by one individual (World Bank, 2022a)
Unemployment	unemp_lf	The percentage of the labor force is unemployed. Varies between 0-100%. (World Bank, 2022b)
Expenditure on Education	gov_exp_ed	Government expenditure on education as a percentage of GDP. Varies between 0-100%. (World Bank, 2022c)
General satisfaction with democracy	gen_sat_dem	Participants are asked to rate their overall satisfaction with democracy in their country on a scale on 1-4. (QoG Standard data set, 2022, 2020, 2018, 2016, 2014)
Universal childcare benefit	ucb	Dummy variable set to 1 if the country has a universal childcare benefit, and 0 if it does not (no childcare benefit or if it is a non-universal benefit). (UNICEF, 2020)
Post-communist state	post_com	Dummy variable set to 1 if the country is a former communist state and 0 if it is not (World Population Review, 2022)
Nordic state	nord	Dummy variable set to 1 if the country is a Nordic state and 0 if it is not. (Norden Co-operation, n.d.)

5.4 Panel Construction and Running Regression(s)

The panel is created in Excel, after that the data has been collected as described in chapter 5.1. The panel is structured as table 3 below demonstrates

Table 3: Demonstration of Panel Structure

Country	Year	Dependant variable 1	…	Explanatory variable 1	…	Dummy variable 1	…
Country1	2022						
Country1	2018						
Country1	…						
Country1	2014						
Country2	2022						
Country2	…						
Country2	2014						
…	…						

As the table shows the dependent variables come first, followed by the explanatory variables, the dummy variables come last. The panel has been built with a “thick” border style between counties, this is to minimize the risk of errors when exporting the data from the QoG standard data sets to the panel, which has been done manually. All regressions have been run twice, this in order to ensure that no mistakes have been made when constructing them in EViews. The point of these precautions is to minimize the overall risk of self-made errors and systematic errors, and as such, to ensure validity and reliability (Teorell – Svensson, 2007:5659).

6. Results

The chapter will present the results of the models and tests used in the study. Beginning with the result of the Hausman test as it determines whether fixed or random effects are used going forward. Then the results of the omitted variables test, followed by the basic models are presented, and lastly the expanded models with interaction terms. As there are three measures of political trust there will be three standard models and three expanded models with interaction terms. When presenting results, the general conduct within the previous literature has been followed, which consists of coefficients, standard errors, and indications significance level.

6.2 Model Specifications

Table 4: The Result of the Hausman Test

Hausman tests			
Dependant variable	P-value	H_0=random effects	Result
logtr_leg	0.000	Rejected	Fixed effects
logtr_parla	0.0005	Rejected	Fixed effects
logtr_police	0.0015	Rejected	Fixed effects

Given the results shown the in the table above, at the five percent level, fixed effects will be used in the models where trust in legal system, trust in parliament and trust in police are the dependent variable.

Table 5: Result of the Omitted Variables Test

Omitted variables test		
Dependant variable	P-value	H_0=corruption is not significant
logtr_leg	0.261	Not rejected
logtr_parla	0.001	Rejected
logtr_police	0.569	Not rejected

The result of the tests shows that for the model where trust in parliament is the dependent variable excluding corruption leads to an omitted variables bias. However, this is not the case for any of the other two models. These results, particularly the one that is rejected need to be kept in mind when analyzing the results of the study.

6.3 Standard Model

Table 6: Results of the Standard Models

Standard models			
Fixed effects	Observations: 120		
Model	Model 1	Model 2	Model 3
Dependant variable	logtr_leg	logtr_parla	logtr_police
gini	0.026** (0.011)	0.039** (0.014)	0.013 (0.010)
unemp_lf	-0.014** (0.005)	-0.019** (0.007)	-0.011** (0.005)
gov_exp_ed	-0.029 (0.024)	-0.049 (0.030)	-0.007 (0.021)
gen_sat_dem	0.148 (0.114)	0.333** (0.147)	0.027 (0.104)

*: *α<0.10* **: *α<0.05*
Standard error in parenthesis
Number of countries: 29

The results for model 1, see table 6, show that there are two explanatory variables with a statistically significant effect on trust in the legal system at the common practice five percent alpha level. Those are Gini and percentage of unemployment in the labor force. The results should be interpreted as; on average, an increase of Gini by one unit (percent), correspond with an increase in trust in the legal system by 0.026 percent, given that all other explanatory variables are held constant. In the same vein, the interpretation of the effect of unemployment in the labor force should be read as; if unemployment in the labor force increases by one unit (percent) the expected trust in parliament, conditional on all other variables, is a decrease of 0.014 percent. The positive effect of Gini is larger than the negative effect of unemployment. The standard errors are low, however, higher for Gini, and consistent given that the right specifications have been used according to the results of the Hausman test.

As the table above demonstrates in model 2 there are three variables with a significant effect on trust in parliament in this model, all at the five percent level. They are Gini, unemployment as a percentage of labor force, and general satisfaction with democracy. However, government expenditure on education as a percentage of GDP does not have a significant effect. The interpretation of the results is an increase of Gini by one unit (percent), correspond with an increase in

trust in the parliament by 0.039 percent. An increase of unemployment in the labor force by one unit (percent), correspond with a decrease in trust in the parliament by 0.019 percent, lastly, an increase of general satisfaction in democracy by one unit, correspond with an increase in trust in the parliament by 0.333 percent. All these results are conditional on holding all other variables constant. As such, it is concluded that the variable with the largest impact on trust in parliament is general satisfaction with democracy. However, this is also the variable with the largest standard errors, for the other significant variables the standard errors are low. All standard error and estimators are consistent given the effects used and the Hausman test.

As can be seen by the model 3 above, the only variable with a significant effect, at the five percent level, on trust in police is unemployment rate in the labor force. The other variables are highly insignificant. Their effect can thus not be distinguished from randomness. The interpretation of the effect of unemployment is on average, an increase of unemployment as a percentage of labor force by one percent, correspond with a decrease in trust in the police by -0.011 percent, conditional on all other variables. The standard errors are low and consistent.

Generally, the standard models show significant effect from the measures of economic inequality, although, unemployment in the labor force returned one more significant result than Gini at the five percent level. Government expenditure on the other hand show no significant results in any of the models, whilst general satisfaction with democracy returned one significant result in models, although, the standard errors are high. Model 2 also suffers from an omitted variables problem that can affects its output.

6.4 Models with Interaction Terms

Table 7: Results of the Models with Interactions Terms

Interactive models			
Fixed effects	Observations: 120		
Model	Model 4	Model 5	Model 6
Dependant variable	logtr_leg	logtr_parla	logtr_police
gini	-0.020 (0.121)	-0.232 (0.138)	0.011 (0.109)
unemp_lf	-0.008 (0.038)	0.061 (0.045)	-0.021 (0.035)
gov_exp_ed	-0.027 (0.030)	-0.054 (0.034)	0.004 (0.027)
gen_sat_dem	0.003 (0.158)	0.393** (0.182)	-0.144 (0.144)
gini×ucb	0.068 (0,121)	0.281* (0.139)	0.023 (0.111)
gini×post_com	-0.032 (0.072)	-0.020 (0.083)	0.006* (0.066)
gini×nord	-0.098 (0.093)	0.001 (0.106)	-0.070 (0.084)
unemp_lf×ucb	0.000 (0.038)	-0.079* (0.044)	0.020 (0.035)
unemp_lf×post_com	0.005 (0,112)	0.005 (0.128)	0.064 (0.102)
unemp_lf×nord	0.026 (0.028)	0.066* (0.032)	0.004 (0.025)

*: $\alpha<0.10$ **: $\alpha<0.05$
Standard error in parenthesis
Number of countries: 29

Table 7 shows the results of the three models with interaction terms. Model 3, where trust in legal system is the dependent variable show no significant results, for any of the solitary variables or interactions at the five or ten percent level.

Model 2, where the dependent variable is trust in parliament provides three significant results. Two at the ten percent level and one at the five percent level. These are general satisfaction with democracy, the interaction between Gini and universal child benefits and the interaction between unemployment in the labor force and Nordic countries. The interpretation of the first is, if general satisfaction with democracy increases by one unit trust in parliament increases by 0.392 percent, all other variables held constant. The interpretation of the second significant result is, if Gini increases by one unit (percent) the effect on trust in parliament is 0.281 larger than in countries without universal child benefits, conditional on all other variables. The last interpretation is, if unemployment in the labor force increases by one unit (percent) the effect in Nordic countries is 0.066 percent higher than in non-Nordic countries. The standard errors are relatively high for the significant observations.

As model 3 illustrates there are no significant results in this model at alpha level five percent that effect trust in police, however, at the 10 percent level the interaction between Gini and post-communist countries has a significant effect on trust in police. The interpretation of this effect is, if unemployment in the labor force increases by one unit (percent), trust in police decreases by 0.017 percent, all other variables held constant. The interaction between Gini and post-communist states should be interpreted as if Gini increases by one unit (percent) the effect in post-communist countries is 0.005 percent larger than in non-post-communist countries, conditional on all other variables

Generally, these models show a lack of significant results. However, there are some significant results including the interactions terms which are useful for further analysis.

7. Analysis and Discussion

The chapter will analyze the results of all models. Connecting them to the theory, literature, and hypotheses in an attempt to answer the research question. Suggestions for further research will also be presented.

7.2 General Results

The goal of this study was to investigate the effects of income inequality on political trust in Europe. The standard models (see table 6) showed a high degree of significance for the estimators of economic inequality, all having a significant effect on the political trust except one - Gini on the trust in police (see table 6). These are interesting results as the expectation was not clear, given the differing results presented in the literature (van der Meer - Hakhverdian, 2016:84), the point being that significance for measure of actual economic performance is not certain. Given the significant results, what should also be noted is the difference between the effects of Gini and unemployment in the labor force. From the theoretical perspective of Rothstein (2011) and Easton (1975) a negative effect is expected - as economic inequality rises political trust diminishes. However, this is not the case for the observed effect of Gini in any of the models, at the five or ten percent level. Other researchers tend to find a negative effect of Gini (if any effect) for example van der Meer and Hakhverdian (2016:95) and Zhou and Jin (2020:104). Nonetheless, whilst a negative effect is the most common, there are other researchers who also find a positive effect that is significant, one example of this is Lee et al. (2020:81). However, the compatibility between Zhou and Jin (2020), Lee et al. (2020) and this study is questionable given that both these studies investigate Asian countries. To what degree and how it may affect their results is hard to say, even so, comparing results between them should be done with caution. Nevertheless, the different observed effects from two variables measuring economic inequality are interesting. Comparing results with more similar studies may offer more insight. Goubin and Hooghe (2020) find that both Gini and unemployment has a significant negative effect on political trust (operationalized in a way similar way to this study) in their study which includes 28 European countries (Goubin – Hooghe, 2020:235). Further, when controlling for Gini Bergh and Bjørnskov (2014) find no significant effect on political trust (Bergh – Bjørnskov, 2014:193). Comparing the results of this study to those studies discussed here and with the literature gives the sense that the result of this study largely follows the literature, resulting in a lack of clarity, at least when it comes to

the differences in effect between Gini and unemployment. It should also be noted that the expanded models generally lack significant results, indicating a lack of significance in the tested variables. Perhaps this can be linked back to the panel data estimator. As discussed before the panel data estimators works best, in the sense of providing the best results, when the number of observations is large. Further, it should be noted that the problem of significance and small effect were expected, given Rothstein's idea of stickiness in these variables, meaning that they change little over time (Rothstein, 2011:160)

Taking a step away from the literature and instead looking back at the theory one can conclude the idea that government expenditure on schooling has a positive effect on political trust, presented by Rothstein (2011:154), finds no support in this study, as none the of the six models found any significant effect from this variable. Further, Rothstein also theorizes that being a former communist states effects political trust negatively (ibid). One significant result is found in this regard. However, it shows that the effect of increases Gini has a positive effect on political trust compared to non-post-communist states, contrary to Rothstein's theory. Looking to the literature, when controlling for post-communist states Goubin and Hooghe (2020) find no significant results (Goubin – Hooghe, 2020:235-240). On the other hand, Bergh and Bjørnskov (2014) find that being a post-communist state has a negative effect on political trust in all their models (Bergh – Bjørnskov, 2014:192). Therefore, it is concluded that neither of these ideas find any support in this study.

It can also be concluded that the use of Easton's trust-as-evaluation approach has generated some significant results, however, the conflicting results means that these results alone cannot be used to make genializing claims about the relationship between political trust and economic inequality in Europe. This is likely not a validity or reliability problem, in terms of data, but rather a design problem, as a longer time-series and more observations might provide more room for generalizable results. Nonetheless, the results can be seen as confirming of the results in the literature – a lack of consensus – thus confirming the need for further research.

7.3 Hypotheses

Given the discussion about the general results and their connection to the literature and theory that the study is based on a discussion of the hypotheses will now follow. The goal of the hypotheses was to concretize the research question and to intertwine it with the theory.

Hypothesis 1: Increased income inequality leads to lower political trust

In the standard models (see table 6) there is no evidence of a negative relationship between Gini and political trust, at the five or ten percent level. On the contrary two out of three of the observed effect on Gini are positive, whilst one is insignificant. However, for the other measure of economic inequality, unemployment in the labor force there is evidence in favor of this hypothesis, all models show a negative relationship between this variable and political trust (legal system, parliament, police), which is significant at five percent level alpha. In the interactive models (see table 7) Gini nor unemployment in the labor force has a significant effect on political trust at the five or ten percent level of alpha. However, table 6 shows a that Gini has a positive effect on trust in police in post-communist countries at the ten percent level. Nonetheless, since unemployment has a significantly negative effect in all the standard models, which is not the case for Gini. To further investigate the effects in the standard model a 95% confidence interval is used.

Table 8: 95% Confidence Interval for Measures of Economic Inequality in the Standard Models

		Confidence interval 95%	
Variable	Coefficient	Low	High
Dependant variable: logtr_parla			
gini	0.039	0.008	0.068
unemp_lf	-0.019	-0.034	-0.003
Dependant variable: logtr_leg			
gini	0.026	0.003	0.049
unemp_lf	-0.014	-0.025	-0.001
Dependant variable: logtr_police			
gini		Not significant	
unemp_lf	-0.011	-0.022	-0.001

Table 8 demonstrates the 95 percent range in which the true estimates of the variables are expected to lie. As the test shows all variables keep their sign (positive

or negative), meaning that all coefficients for Gini stay positive and all coefficients for unemployment stay negative. Hence, it can be said that these effects can be confirmed at the 95 percent level. Given these results it is concluded that this study finds support for Rothstein's theory and thus hypothesis 1 when unemployment is used as the measure of economic inequality, however, when measured as Gini the opposite is true. The results are deemed conflicting with a slight edge in favor of the theory and hypothesis due to the superior number of significant results in favor of it.

Hypothesis 2: Having universal social programs has a positive effect on political trust

The interactive models show different results when it comes to the effect of universal social programs. Although, showing an insignificant effect in the models with trust in the legal system and police respectively the effect is significant in the model with trust in the parliament as the dependent variable (see table 7). Model 5 shows a significant effect on trust in parliament when controlling for the existence of universal social programs in the form of universal child benefits, interestingly the effect is positive for Gini and negative for unemployment in the labor force. As such it is hard to determine which of these effects are to be viewed as determinant. To investigate further a confidence interval at the 95 percent level is set up.

Table 9: 95% onfidence Interval for Significant Result for gini×ucb and unemp_lf×ucb

	Confidence interval 95%		
Variable	Coefficient	Low	High
gini×ucb	0.281	0.160	0.722
unemp_lf×ucb	-0.079	-0.219	-0.039

As table 9 shows the effect of Gini stays positive at the low and high bound of the interval, as such the positive effect can be confirmed at the 95 percent level. Likewise, the negative effect of unemployment stays at the low and high of the bound and the negative effect can as such be confirmed at the 95 percent level. As such, the notion that universal social programs have a positive effect on political trust, theorized by Rothstein (2011:154), finds support in this study when economic inequality is measured as unemployment in the labor force. However, as it finds no such support when Gini is used, on the contrary the effect is opposite of that proposed by Rothstein, and given that two out of three models returned no significant results, in support or in opposition to the theory, I conclude that this study mainly provides no results in favor nor against the theory. However, the

results it does provides are conflicting and provide no clear answers. Opening for further research, given the ambiguity of this measure as discussed in chapter on theory.

7.4 Further Research

One of the goals of this study was to include regional division in the model(s), this in order to fill a hole in the literature on political trust and economic inequality. Although this has been done to some extent, by dividing regions through the inclusion of post-communist states and the Nordic countries as dummy variables, regional division on a continental scale would have been preferable. Investigating Nordic countries has already been done in the literature, for example by Bergh and Bjørnskov (2014). The lack of cross-continental comparative studies is still glaring, given the problems associated with data, mainly, the lack thereof, this is hardly surprising. Nonetheless, it opens for further research in two ways, firstly, data collection across continents would be a welcome addition to the Europe focused data available at this time. Although data for some Asian countries is available, there is a lack of data of the same sort (same variables) across continents.

Further research could also include other theories, one example of this could be the so-called Volcano Thesis, which theory states that rising inequality threatens political stability. It has been applied to China already by Zhou and Jin (2018:1033, 1035), who found no evidence for it in China. However, it would be interesting for researchers to investigate this theory in other countries and to compare between countries, especially in a cross-continental study. In a case where another theory is chosen, one can also chose different operationalization's of political trust. Different to those in this study, as they were partly (two out of three measures) based on Rothstein's theory. The QoG data base provides data on trust in political parties, trust in politicians, and trust in other people, to name a few examples (Quality of Governance, n.d.). Different data would obviously change the results, however, how or in what way is hard to say without implementing these changes in a study. Nonetheless, perhaps using other variables that varies more would be preferable given the discussion of the panel data estimator in 4.1.2.

The results of the hypotheses present openings for further research. The conflicting effects of Gini and unemployment on political trust found, together with the lack of consensus in the literature, means that more research needs to be conducted in this field to further solidify findings. Moreover, the relatively short time span used in these studies could be extended, this would provide insight into how political trust changes over longer periods of time, which would be particularly useful given the stickiness of these variables discussed throughout this study. Hypothesis 2 provided conflicting results and as such needs to be studied more. The use of universal child benefit as a universal social program was motived by Rothstein discussing it in his theory. However, there are many other measures that could have been used for example universal healthcare or housing benefits. Further

research should look to include more measures of this and perhaps to combine them. This is important as if support for the idea that universal social program feeds into greater political support can be found it would have implications for those states who currently have no such programs. Given that this study did not provide generalizable results, there is room for more research akin to this study which includes a larger amount of data and longer time-series.

Rothstein describes the low trust-inequality trap as a circular pattern. As this study has limited itself to not include corruption more research could be conducted into investigating the circular notion of the theory, for the operationalization of this theory a more advanced method is required. One alternative would be a two-step model.

8. Summary of Conclusions

In conclusion, using a method based on Easton's trust-as-evaluation approach to investigate the relationship between political trust and economic inequality in Europe has yielded interesting results. The effect(s) of economic inequality, which was the focus of hypothesis 1, can be summarized as conflicting, which goes in line with the results of the previous literature at large. The second hypothesis provided some insight into the notion that universal social programs promote political trust; however, these results are conflicting, and as such little evidence in favor of Rothstein's theory is found. In the interactive models there is a general lack of significant results. In summary, economic inequality affects political trust differently given different measures of it. The reason behind this is unclear and calls for further research. Ideally it requires longer time-series and more data. There is still a hole in the literature which needs to be filled, that of comparative studies across continents, combing long time-series with compassion would make for a new approach in this field of study that lacks consensus.

9. References

Andersson, Christopher - Matthew Singer, 2008. “The Sensitive Left and the Impervious Right - Multilevel Models and the Politics of Inequality, Ideology, and Legitimacy in Europe”, *Comparative Political Studies*, vol. 41, no. 5, p. 564-599.

Baltagi, Badi, 2021. *Econometrics*. 6th edt. Heidelberg, Berlin: Springer.

Bergh, Andreas - Christian Bjørnskov, 2014. “Trust, welfare states and income equality: Sorting out the causality”, *European Journal of Political Economy*, vol. 35, p. 183-199.

Chi, Eunju - Yangho Rhee - Hyeok Yong Kwon, 2013. “Inequality and Political trust in Korea”, *Korea Observer*, vol. 44, no. 2, p. 199-222.

Clarke, Harold - Nitish Dutt - Allan Kornberg, 1993. “The political Economy of Attitudes toward Policy and Society in Western European Democracies”, *The Journal of Politics*, vol. 55, no.4, p. 998-1021.

Clay, Henry, 2015 [1835]. *The Papers of Henry Clay, candidate, Compromiser, Whig, March 5, 1829-Decmber 31, 1846*. Lexington, Kentucky: University Press of Kentucky.

Cusack, Thomas, 1999. “The Shaping of Popular Satisfaction with Government and Regime Performance in Germany”, *British Journal of Political Science*, vol. 29, no. 4, p. 641-672.

Easton, David (1975). “A Re-Assessment of the Concept of Political Support”, *British Journal of Political Science*, vol. 5, no. 4, p. 435–457.

Eviews, 2020a = EVviews website, 2020. “Panel Equation Testing - Hausman Test for Correlated Random Effects”. [Electronic] Available:
http://www.eviews.com/help/helpintro.html#page/content%2FpanelPanel_Equation_Testing.html%23ww189426

Eviews, 2020b = EVviews website, 2020. “Panel Equation Testing - Omitted Variables Test”. [Electronic] Available:
http://www.eviews.com/help/helpintro.html#page/content%2FpanelPanel_Equation_Testing.html%23ww189426

Försäkringskassan = Försäkringskassans website, 2022. Bostadsbidrag till barnfamiljer”. [Electronic] Available:
https://forsakringskassan.se/privatperson/foralder/bostadsbidrag-tillbarnfamiljer

Geddes, Barbara, 1990.” How the cases you choose affect the answers you get: Selection bias in comparative politics”, Institute of Governmental Studies, UC Berkeley.

Goubin, Silke - Marc Hooghe, 2020. “The Effect of Inequality on the Relation

Between Socioeconomic Stratification and Political Trust in Europe", *Social Justice Research*, vol. 33, p, 219-247

Hakhverdian, Armen - Quinton Mayne, 2012. "Institutional Trust, Education. and Corruption: A Micro-macro Interactive Approach", *The Journal of Politics*, vol. 74, no. 3, p. 739-750.

Heale, Roberta – Alison Twycross. 2015. "Validity and reliability in quantitative studies", *Evidence-based nursing*, vol. 18, p. 66-67.

Lee, Daewoo - Chae Young Chang - Hyunkang Hur, 2020. "Economic performance, income inequality and political trust: new evidence from a crossnational study of 14 Asian countries", *Asia Pacific Journal of Public Administration*, vol. 42, no. 2, p. 66-88.

Lipps, Jana - Dominik Schraff, 2020. "Regional inequality and institutional trust in Europe", *European Journal of Political Research*, vol. 60, no. 4, p. 892–913.

Loveless, Matthew, 2016. "Inequality and Support for Political Engagement in New Democracies", *European-Asia Studies*, vol. 68, no. 6, p. 1003–1019.

Norden Co-operation = Nordic Co-operations website, facts about the Nordic countries. [Electronic] Available: https://www.norden.org/en/information/facts-about-nordic-countries Obama, Barack, 2008. 44th President of the United States of America. Speech 2808-2006.

Oskarsson, Sven, 2010. "Generalized trust and political support: A cross-national investigation", *Acta Politica*, vol. 45, p. 423–443.

QoG, 2022a The Quality of Governance Institute, 2022a. "Trust in Legal System". [Electronic] Available: https://datafinder.qog.gu.se/variable/ess_trlegal

QoG, 2022b = The Quality of Governance Institutes website, 2022b. "Trust in Police". [Electronic] Available: https://datafinder.qog.gu.se/variable/ess_trpolice

QoG, 2022c = The Quality of Governance Institutes website, 2022c. "Trust in Parliament". [Electronic] Available: https://datafinder.qog.gu.se/variable/ess_trparl

QoG, 2022 = The Quality of Governance Institute data finder, search word "trust". [Electronic] Available: https://datafinder.qog.gu.se/variables/all?search=trust&search_country=&min_year=&max_year=

QoG Standard data set 2022 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/standard-data set

QoG Standard data set 2020 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/data-archive

QoG Standard data set 2020 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/data-archive

QoG Standard data set 2018 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/data-archive

QoG Standard data set 2016 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/data-archive

QoG Standard data set 2014 = Quality of Governance Data Archive website. [Electronic] Available: https://www.gu.se/en/quality-government/qogdata/data-downloads/data-archive

Ravi Kumar, Nirmal, 2020. *Econometrics*. 1st edt. Boca Raton, Florida: CRC Press.

Teorell, Jan – Torsten Svensson, 2007. *Att fråga och att svara - Samhällsvetenskaplig metod*. Malmö: Liber.

UNICEF, 2020. Universal child benefits. United Nations International Children Emergency Fund, June 2020. [Electronic] Available: https://www.unicef.org/media/72916/file/UCB-ODI-UNICEF-Report2020.pdf Download date: 04-05-2022.

van der Meer, Tom - Armen Hakhverdian, 2017. "Political Trust as the Evaluation of Process and Performance: A Cross-National Study of 42 European Countries", *Political Studies*, vol. 65, no. 1, p. 81–102.

Zhou, Yingnan - Shuai Jin, 2018. "Inequality and Political Trust in China: The Social Volcano Thesis Re-examined", *The China Quarterly*, vol. 236, p. 10331062.

World Bank, 2022a = World Banks website, Gini Index. [Electronic] Available: https://data.worldbank.org/indicator/SI.POV.GINI Download date: 17-042022

World Bank, 2022b. "Unemployment, total (% of total labor force) (national estimate). [Electronic] Available: https://data.worldbank.org/indicator/SL.UEM.TOTL.NE.ZS Download date: 17-04-2022

World Bank, 2022c = World Banks website, Government expenditure on education, total (% of GDP). [Electronic] Available: https://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS Download date: 17-04-2022.

World Population Review. Former USSR Countries 2022. [Electronic] Available: https://worldpopulationreview.com/country-rankings/former-ussr-countries

Zmerli, Sonja - Juan Carlos Castillo, 2015. "Income inequality, distributive fairness and political trust in Latin America", *Social Science Research*, vol. 52, p. 179–192.

10. Appendix

The countries included in the models are the following:

1. Austria
2. Belgium
3. Bulgaria
4. Croatia
5. Cyprus
6. Czechia
7. Denmark
8. Estonia
9. Finland
10. France
11. Germany
12. Greece
13. Hungary
14. Iceland
15. Ireland
16. Italy
17. Lithuania
18. Netherlands
19. Norway
20. Poland
21. Portugal
22. Russia
23. Slovakia
24. Slovenia
25. Spain
26. Sweden
27. Switzerland
28. Ukraine
29. UK + Northern Ireland