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Political Science: International Relations and Organizations

# Bachelor Project 6: Inequality in Political Perspective

## Assignment 6: Final Version

# The Relationship Between Economic Inequality and Contemporary Western Populism

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# Introduction

This paper concerns, broadly, the relationship between economic inequality and contemporary populism in Western society (referring to Europe and the Anglo-Saxon world). Although many have pointed out the recent trends of rising inequality and surging populism in western societies, a potential link between those two trends has not yet been researched extensively. When delving into major theoretical works as well as smaller research papers, it appears the most obvious research question that remains to be answered is to what extent, if at all, economic inequality contributes to the increasingly influential populism of Europe and the Anglo-Saxon world. Limited by available data to the European continent between 1998 and 2017, this research compares populist vote shares in national elections to the extent of income inequality during those elections in the corresponding countries. The findings suggest that income inequality and the populist vote share in Europe are significantly and positively associated to a modest degree. Future research may well examine appropriate control and interaction variables and explore the North American case for which circumstances are different. This paper also warrants more in-depth research into the mechanisms underlying the relationship between income inequality and populism. At the same time, an explanation of the current populist trend in the West resting solely on economic inequality is inadequate, as much of the variation of populism in Europe was not accounted for by the model. Future inquiries into complementary explanations are still necessary to complete the puzzle of contemporary Western populism.

# Theoretical Framework

Recently, the issue of inequality has regained public attention as a problem of the developed world. Scholars were initially concerned with the exploration of state-specific variables to explain tendencies for governments to adopt or not to adopt redistributive policies, especially in the case of developed democracies (McCarthy & Pontusson, 2011). Research findings supported the influence of variables such as union-employer dynamics, state structure and diversity of religion and race (McCarthy & Pontusson, 2011, pp. 1-2). Recently, however, the emphasis has shifted towards the global dynamics of inequality. Piketty has shown that because the growth of economies across the world is greatly exceeded by the return on capital, economic inequality emerges globally between those with, and those without capital (2014, p. 25). In his book about global inequality, Milanovic makes a simple but useful distinction between inequality within and between states. (2015, pp. 7-9). In this regard, data suggests that the economic inequality *between* states has started to decline slowly in recent years (Milanovic, 2015, pp. 7-9; Roser & Ortiz-Ospina, 2016). Most of this decline is due to the economic rise of China and India, and when ignoring these two countries the decline has been much slower (Darvas, 2018). In addition, there are notable regional differences regarding inequality within countries. For instance, the most economically unequal region of the world, Latin America, has become more equal over the past two decades (Roser & Ortiz-Ospina, 2016; Milanovic, 2015, pp. 81-83). However, in most other emerging economies, income inequality has grown clearly between 1980 and 2010 (Piketty, 2014, pp. 326-327). The industrialized world too has seen an increase in income inequality in the same period, although this trend was much stronger for the Anglo-Saxon countries than for continental Europe and Japan (Piketty, 2014, pp. 315-318). The difference between continental Europe and the four English speaking countries can be explained by the more significant pre-tax income redistribution present in the continental European case, though this fact should not give the illusion that Europe is immune to inequality; its trend may not be as steep as the American graph, but it is significant and continuing (Blanchet, Chancel & Gethin, 2019, pp. 58-59). As Milanovic puts it, the economic trends of the United States generally display more radical versions of changes elsewhere in the industrialized world (2015, p. 195). Compared to income inequality, wealth inequality in Europe and the U.S. between 1980 and 2010 shows similar patterns (Piketty, 2014, pp. 348-350). However, these high levels are not new and are, except for the American case which has reached a historical peak, either comparable or exceeded by inequality levels of the early 20$^{th}$ century (Piketty, 2014, pp. 323-324, 349).

Tackling the problem has proven to be difficult; large corporations evade taxation with the help of states (especially those in Europe) as they employ strategies of low corporate tax rates or even complete tax exemptions in order to attract big business (Piketty, 2014, pp. 281-282, 525-526, 560). This tax competition puts the capital of large corporations and rich individuals out of the reach of states. Hence, without regulation on a global scale, the issue of inequality is hard to solve (Piketty, 2014, pp. 525-526; Zucman, 2015, pp. 115-116). In short, seeing as both a major universal cause and the most effective solutions to economic inequality are supposedly a global nature, it would appear as though the trend is best characterized and analyzed as a worldwide phenomenon. However, as the next section will show, some regions are affected by economic inequality more or differently compared to others. If the aim is to paint a picture of the consequences and dynamics of economic inequality, then region-specific factors must be considered too.

*The Inequal Impact of Economic Inequality*

On a global scale, economic inequality has not impacted all states equally. Instead, the literature suggests that its effects depend on (at least) two variables: the type of a state's economy and the type of its political system. Namely, while the global middle-class (especially in Asia) and the richest of the rich world have benefited greatly from globalization in terms of income growth, similar benefits have not materialized for the lower middle-class of the industrialized democratic world (Milanovic, 2015, pp. 10-11, 23). Milanovic fears that the stagnation of the lower middle-class in these countries would decrease the general public's assertiveness to fight for essential public services and social welfare, which in turn would erode democratic institutions (2015, pp. 194-199). He continues by arguing that in Europe this process would take the form of populism and/or nativism, while in the United States democracy would slowly be replaced by plutocracy (Milanovic, 2015, pp. 194-205). The reason that Milanovic makes a distinction between the two regions is interesting; he finds that the American two-party system has become too rigid and favoring to the wealthy elites, who have used gerrymandering and the spreading of xenophobia to distract the public for the sake of protecting their wealth (2015, pp. 199-204). Any reason for public anger directed at migrants or other minority groups would be the result of what Milanovic somewhat uncomfortably calls a 'false consciousness' (2015, pp. 201-202). With this term, he refers to a forced narrative that would lead many (especially poorer) individuals to overestimate social mobility and by extension reject the idea that economic issues would be to blame for their frustration (Milanovic, 2015, p. 203). According to this view, Europe's story would be different because

its political systems are more responsive to its nations and not as strongly influenced by money (Milanovic, 2015, pp. 204-205). Additionally, Milanovic believes that European frustration towards immigration policy is more legitimate, as many European countries have a long history of poor integration and assimilation of immigrants, which combined with the previously discussed declining middle-class would fuel populism in the region (2015, pp. 204-206, 207-211). Curiously, Milanovic does not really examine the case of Latin America while discussing the dangers of economic inequality, even though the region has experienced both inequality and socioeconomic populism to a great degree (Mudde & Kaltwasser, 2017, pp. 27-28). That may be because, as Milanovic has explained himself, the region has seen a recent *decline* in inequality which might indicate a deviation from the trends as seen in Europe and the U.S. (Roser & Ortiz-Ospina, 2016; Milanovic, 2015, pp. 81-83; O'Neil, 2018; Barr, 2017, p. 58).

It is insightful to step back and consider what Milanovic is getting at in his analysis. Essentially, his argument is that democracy in the Western world is declining through the developments of populism in Europe and plutocracy in the U.S., both of which were ultimately caused by the recent rise economic inequality. There is an empirical basis for making these connections, as over the last two decades the amount of money spent on American elections has grown considerably while populism in Europe has surged (Milanovic, 2015, p. 201; Rooduijn, 2018). Yet, while intuitively a solid line of reasoning, there are several theoretical ambiguities present in Milanovic's analysis. Firstly, the variables are rather loosely defined. It is often unclear whether Milanovic considers inequality within countries or globalization in general as the independent variable, and he frequently switches between populism and democracy as the dependent variable (Milanovic, 2015, pp. 207, 210-211). Secondly, he interprets the issue of immigration and integration to be more serious and legitimate in Europe than in the United States. It is one thing to argue that American social mobility is overestimated by citizens in lower income brackets. It is quite another to assume that therefore, a large portion of Americans is manipulated to be frustrated at immigrants and those of other ethnic backgrounds, even if that is a real possibility. Thirdly, Milanovic does not explain his reason for only attributing the trend of populism to Europe. At least on the surface, the United States does not appear particularly immune to the phenomenon. Lastly and most importantly, instead of exploring and finding direct evidence for linking inequality to populism and plutocracy, Milanovic (admittedly understandably) assumes the existence of this relationship and by extent connects populism to generally declining democracy (2015, pp. 199, 211). In other words, while his analysis does not conclusively answer a great many questions, it does provide an

abundance of theoretical material to test. Specifically, the relationship between economic inequality and contemporary populism will be explored further in detail.

*Defining and Examining Contemporary Western Populism*

Although the American slide towards plutocracy is certainly worthy of extensive study, analytically it may be more universal to Western society to focus on the phenomenon of populism. At least, that is what many scholars and journalists suggest. For instance, in his editorial about 'The end of neoliberal globalization and the rise of authoritarian populism', Michael A. Peters (2018) discusses numerous observations and interpretations made by various scholars and commentators on Brexit and its association with neoliberalism and the American 2016 presidential election. Peters himself too relates Trump to other xenophobic populist leaders in Europe (2018, pp. 324-325). However, good research starts with discussing the variables in question independently. To this end, a clear definition of populism is crucial. Ideally, populism is conceptualized by both its causal elements as well as its symptoms, with the former explaining the existence of the latter. Then again, considering that the causes of populism are called into question here, using a definition that refers to the causal elements of populism would lead to logically circular results. Therefore, a definition based on symptoms only is essential. Defining populism in this manner, however, has not proven to be easy. The biggest problem with demarcating populism has been that the traditional associations made with it – appealing to 'the gut' and promoting popular over responsible policies to win electoral support – are highly subjective and therefore hard to measure (Mudde, 2004, pp. 542-543). At the same time, one cannot deny that populism is a real phenomenon that is significantly different from other political expressions. Moreover, while it is tempting to think of populism as a radical right-wing ideology in the context of the United States and Western Europe, countries like Greece, Spain and Italy along with Latin America have also seen more left-wing versions of populism (Lewis et al., 2019a; Lewis et al., 2019b). Therefore, populism is best considered as neutral on the economic left-right scale.

Political scientist Cas Mudde has offered a widely used solution to these conceptual issues, arguing that populists across the world do share a common albeit shallow ideology. Namely, they pit the 'morally virtuous people' against the 'self-serving elite' and argue that political decisions should be based directly on the will of the general populace (Mudde, 2004, pp. 542-544). This conceptualization has the advantage of not limiting itself to either the left or the right side of the political spectrum, as it is essentially 'a thin-centered ideology' (Mudde, 2004, p. 544). As such, populists left, right and center define and antagonize an elite (Inglehart

& Norris, 2019, p. 67). Crucial to this research, however, is that this elite is not necessarily thought of as the cause of populism. Populist rhetoric that frames the elite as the cause of the public's frustration is merely used to identify populist actors, even if that perception turns out to be incorrect.

Now that populism is defined, it is useful to describe further the populist trend in the West before analyzing causal explanations. For clarification, Western society is focused on as its growing populism seemingly coincides with rising economic inequality. The 'West' in this sense refers to the six Anglo-Saxon countries and Europe. While Latin America has had a long history with populism and is not at all free of the populist trend today, the region is currently experiencing a *decrease* in inequality and a rise of the middle class (Roser & Ortiz-Ospina, 2016; Milanovic, 2015, pp. 81-83; O'Neil, 2018; Barr, 2017, p. 58). Many other regions experience a rise in inequality too, but may not experience populism or are not democratic and thus do not allow for populism to emerge. Populism is, after all, a phenomenon of democracies. Using Mudde's commonly employed conceptualization, then, The Guardian reports that the terms 'populism' and 'populist' were mentioned in around 300 of its articles in 1998, which has since grown towards 2,000 in 2016 (Rooduijn, 2018). Furthermore, the newspaper reports that European populists have seen their share of the vote increase from 7% in 1998 towards about a quarter in 2018 (Lewis et al., 2018b). As a result, the amount of people living in countries in which populists participate in government has multiplied itself by a factor of 13 over that 20-year period (Lewis et al., 2018b). In the United States, the story is somewhat different. While the growth of support for politicians such as Donald Trump and Bernie Sanders seems like an expression of populism – and there is no consensus that it is not – Mudde and his colleague Cristóbal Rovira Kaltwasser argue the opposite. Namely, though Trump refers to a corrupt and antagonistic elite, he does not emphasize a virtuous people (Mudde, 2018, pp. 32-33). Additionally, Trump did not run for president as an independent or third-party candidate, and overwhelmingly received partisan support as opposed to bipartisan populist support in the 2016 election (Mudde & Kaltwasser, 2018, p. 1673). As for Bernie Sanders, Mudde finds that his narrative is not normative enough, as he does not define the elite as antagonistic nor the people as morally virtuous (2018, pp. 52-53). Instead, contemporary American populism would take place in the form of social movements such as the Tea Party and Occupy Wall Street movements, as access to the political system would have become too restricted by financial barriers and a majoritarian two-party system (Mudde & Kaltwasser, 2017, pp. 22, 58-59; Mudde, 2018, pp. 53-54). In this regard, the extent to which the U.S. is becoming more populist due to inequality is hard to assess with certainty, considering that such a trend would not easily

translate itself to concrete votes. However, as long as the rhetoric and ideas of the Tea Party and Occupy Wall Street movements are echoed in mainstream politics – and they are – it appears that Americans are not exempt from populism (Mudde, 2018, p. 53). From this perspective, Milanovic would be right to point out the limiting effect of plutocracy on populism, but the two social movements should not be ignored. In fact, it is no coincidence that both arose after, if not in response to the financial crisis (Mudde & Kaltwasser, 2017, pp. 25-27). Additionally, other scholars seem to implicitly treat Trump and Sanders as some form of radical populism (Rooduijn & Burgoon, 2018, p. 1721). In short, the theory that inequality causes populism in Europe may be extended to the American case after all.

With respect to the remaining Anglo-Saxon countries, New Zealand and Australia have also experienced growing populism since the 1990s comparable to European developments (Mudde & Kaltwasser, 2017, p. 38). Remarkably, though regional populism has occurred (especially between 1930 and 1960), Canada has not seen any significant populist force at the national level (Mudde & Kaltwasser, 2017, pp. 23-24). With the phenomenon of populism demarcated based on Mudde's conceptualization, then, the next section will examine the existing literature on its connections to inequality.

*Theories Linking Inequality to Populism*

While a variety of scholars have developed numerous theories – including economic ones – that seek to explain populism across the world, only a handful of them have economic inequality as their focus (Kriesi & Pappas, 2015; Hawkins, Read & Pauwels, 2017). However, there are a few papers that explore theoretically relevant consequences of inequality. In their paper titled 'the injustice of inequality', Glaeser, Scheinkman and Shleifer demonstrate how the rich can corrupt institutions to become even richer while creating a system of injustice (2003, pp. 199-200). If populism is about a corrupt, self-serving elite, Glaeser et al. show how such an elite could form. This explanation appears especially plausible regarding the American slide towards plutocracy, as Milanovic explained (2015, pp. 194-205). Another theoretical paper by Nat O'Connor (2017) contains three connections between economic inequality and populism. The first relies on the fact that inequality is linked to financial instability and economic crises, which in turn allow for paradigm shifts and the entrance of new political forces into the political system (2017, p. 30). Secondly, the more significant the inequality, the larger the marginalized group grows and the more legitimate a populist 'people' versus 'elite' narrative becomes (2017, p. 30). The third connection is that inequality affects the views of those who suffer from it, leading to frustration, more significant socioeconomic cleavages and

a decrease in confidence in the political and economic system (2017, p. 30). However, as O'Connor correctly points out, the most economically equal regions in the world also experience populist movements, so economic inequality cannot be considered the only potential factor determining the current populist surge (2017, pp. 30-31).

Nevertheless, extensive research on the topic is certainly empirically and theoretically mandated. One of the few articles that researched the impact of economic inequality on populism was written by Pastor and Veronesi (2018). The two first set up a rational choice explanation for why voters would vote for populists based on their aversion to inequality, after which they analyze voter data of the 2016 American election and the Brexit Referendum and develop a model of linear regression that plots the Gini coefficient against the vote share of anti-elitist parties in the Western world (Pastor & Veronesi, 2018). Indeed, they do find a significant positive effect of inequality on the vote share of 'populist parties', but their definition of populism includes only those parties that promote the reversal of global integration (Pastor & Veronesi, 2018, pp. 2, 30-31). In addition, their analysis is synchronic, meaning that it compares countries at (roughly) the same time. Hence, the model is prone to many potential country-specific factors that could explain both inequality *and* populism. Considering that the model only incorporates one moment in time and has a relatively small N (29 countries), it also offers insufficient evidence for inequality to explain the *rise* in populism. Lastly, the two scholars used a mixed set of election results including both national parliamentary elections as well as European parliamentary elections (Pastor & Veronesi, 2018, p. 52). These two types of elections may be too different regarding the electoral behavior of voters. Hence, while certainly valuable, Pastor and Veronesi's work demands complementary research.

A second article treating inequality as the independent variable in the context of populism is written by Kyung Joon Han (2016). In it, Han investigates the extent to which economic inequality on multiple levels (voter, country and country/year level) can explain voting for populist radical right parties (2016, p. 58). His findings indicate that higher inequality encourages the poor but discourages the rich to vote for the populist radical right (2016, pp. 54, 63). The theory that fits these findings lays out two major competing social groups voters can identify themselves with: the nation and economic class, the latter of which is subdivided into a higher and lower class (Han, 2016, p. 56). The second premise of this theory states that voters will most likely identify themselves with the group they belong to that has the highest status compared to other groups, while distancing themselves from groups that decline in status (Han, 2016, p. 56). Put differently, voters want to belong to the group that

does best compared to others. Then, when the poor get even poorer through rising inequality, their collective status compared to the higher economic class will decline leaving them more likely to identify with their nation instead of their class (Han, 2016, p. 56). To be sure, this economic application of social identity theory is widely supported and backed up by other findings such as the fact that when economic conditions are unfavorable to workers, their unified bargaining power decreases which leaves employers to resist labor organizations more easily (Han, 2016, p. 56). Still, while Han's analysis is certainly theoretically useful, it does not necessarily support the hypothesis that inequality directly causes populism, as he only studied the populist radical right and not general populist support (Han, 2016, pp. 58-59). In other words, his theoretical framework suggests that rising inequality causes the left to lose support and the populist radical right to make gains, but it does not predict whether the overall populist vote share increases. Perhaps those new populist radical right voters previously belonged to the populist radical left or the populist center.

Having discussed the articles of Pastor and Veronesi, and Han, the empirical findings on the direct relationship between inequality and populism end. However, closely related to this relationship is the literature on general economic insecurity, which received major attention for its potential explanatory value with respect to the rise of populism. Its main premise is that globalization has resulted in two groups of economic winners and losers (Inglehart & Norris, 2017, pp. 444-445; Inglehart & Norris, 2016, p. 2). Ronald Inglehart and Pippa Norris have tested this hypothesis along with another popular, non-economic hypothesis that states that a cultural backlash against increasingly dominant post-materialist values is behind the rise of populism (2016, pp. 3-4). On the individual level, the authors studied both cultural and economic predictors for populist voting behavior and found support for an explanation combining both hypotheses which they outlined in a subsequent paper (2016, pp. 3-4; 2017, pp. 445-447). In their paper, Inglehart and Norris explain that while a cultural backlash against post-materialist values may predict better the direct reason for individuals to support populists, a rise in economic insecurity is to blame for the overall *increase* of this support over the last few decades (2017, pp. 445-447). This increase is perhaps more important and intriguing than the general cultural explanation, which appears to suffer somewhat from circular reasoning (voters support radical right-wing populists because they hold radical right-wing values).

What does Inglehart and Norris' research mean when the focus is inequality? Perhaps most importantly, it brings forth an important distinction. While the two authors have frequently referred to inequality in their theoretical framework, ultimately, they chose economic insecurity as the independent variable, which is a concept fundamentally different

from inequality (2017, pp. 444-445). To elaborate, inequality is by its very nature a relative phenomenon, and therefore only exists in the presence of two or more cases. The term says something about the distribution of wealth in a society, but it does not specify the absolute quantities of this wealth. Economic insecurity (or hardship), however, describes the financial stress and difficulty involved with making ends meet. While inequality presumably does cause economic insecurity by diminishing the middle-class and forcing more people into financial hardship, this effect could also be caused by a general economic downturn that negatively affects the entire population more evenly. All else equal, then, every increase in inequality causes more widespread economic insecurity, but not all economic insecurity is caused by rising inequality.

Aside from this conceptual issue, Mudde and his colleague Kaltwasser, argue that Inglehart's & Norris' economic anxiety explanation primarily explains nativist radical right movements which tend to be populist, but not populism generally (2018, pp. 1673-1674). Though Mudde and Kaltwasser acknowledge the overlap between the two political movements, they find that the research of Inglehart and Norris primarily relates to the nativist aspects, not the populist aspects of the radical right. What Mudde and Kaltwasser refer to instead are the findings by Rooduijn and Burgoon that suggest that when aggregate socioeconomic conditions are favorable, individuals who do not do well economically will be more likely to vote for populists (Mudde & Kaltwasser, 2018, p. 1675; Rooduijn & Burgoon, 2018, pp. 1747-1748). In other words, how one votes depends at least in part on the relative position one has compared the rest of society; those who do not benefit from a good economy will become frustrated by a desire for the share of the wealth they deserve (Rooduijn & Burgoon, 2018, p. 1746; Mudde & Kaltwasser, 2018, p. 1675). Rooduijn and Burgoon investigated this relationship by analyzing the effect of aggregate socioeconomic conditions, including inequality, on the relationship between individual economic hardship and individual support for the populist radical ideologies (2018, p. 1722). Noteworthy is that in their models, economic inequality was merely considered as one of multiple interaction variables for assessing aggregate economic conditions. Yet, Rooduijn and Burgoon's findings essentially hint at a major role of economic inequality as an independent variable. After all, individuals apparently vote for populists at least partly based on *relative* economic hardship. Economic inequality would by definition create more relative economic hardship, as it increases the number of voters that supposedly compare themselves negatively to the national average or the rich, which then adds to a populist sentiment (Mudde & Kaltwasser, 2018, p. 1675-1676). A study from 2018 confirms that indeed, those who voted for radical right populists in the U.S. and the U.K. have done so more

often because they perceive their status to be declining, than because they are in an 'objectively' financially insecure position (Gest, Reny & Mayer, 2018; Mudde & Kaltwasser, 2018, p. 1675-1676). While in the study, a perceived drop in economic status was not the strongest predictor of Americans and Britons voting for populists, data can conceal underlying intermediary dynamics that twist outcomes similar to what Milanovic argued with respect to 'false consciousness' (Gest, Reny & Mayer, 2018, pp. 1712-1713; Milanovic, 2015, pp. 201-202). In other words, voters may have been distracted by cultural issues, making them oblivious to the possibility that economic factors are behind their dissatisfaction. This potentiality can be controlled for by investigating inequality on the aggregate level instead of the individual level, as this method would avoid the problem of the validity of the data being dependent on the subjective accounts of individual voters.

In sum, there is a strong theoretical basis for studying *aggregate* inequality as the *independent variable* in a *time-series* model predicting the rise of *general* populism in Western societies. Such a model is yet to be carried out, and hence the research question of this paper is as follows:

*To what extent does economic inequality fuel contemporary populism in Western societies?*

There are two main hypotheses to be formulated based on the theoretical framework, that are instrumental in providing an answer to this question. Firstly, Rooduijn and Burgoon's (2018) findings suggest that individuals will compare their position to others in society, so when an economy is booming but they are not benefiting from it, frustration could add to populist movements. Second, Glaeser et al. (2003) have shown the tendency for inequality to create possibilities for the rich to influence institutions in favor of their interests, creating further inequality but above all legitimizing a narrative based on a corrupt and self-serving elite. O'Connors support this reasoning by suggesting that inequality inherently creates an us-versus-them dynamic between 'the people' and 'the elite' for populists to exploit, along with worsening socioeconomic cleavages and confidence in public institutions. Additionally, he argues that inequality causes economic crises allowing for new political opportunities (O'Connor, 2017, p. 30). Hence, O'Connors arguments too, point at a relationship between rising inequality and populism. In short, both hypotheses predict an increase in the vote share of populists as inequality rises. The next chapter lays out the methodology for testing these hypotheses.

# Methodology

*The Models*

In brief, to test the hypotheses, first the correlation between income inequality and the populist vote share is examined, after which the method of Ordinary Least Squares (OLS) will be used to estimate two models of linear regression. The first treats the degree of inequality as the independent variable, and the populist share of the vote as the dependent variable. The second adds country dummies to control for country-specific fixed effects. The data points (129) are European countries by election year in the period of 1998-2017.

## Conceptualizing and Operationalizing the Research Question

*Populism* – As previously stated, because the causal components of the concept are the subject of this research, 'populism' will only be defined by the symptomatic narrative that it subscribes to involving a cleavage between an antagonized elite and a supposed morally virtuous people (Mudde, 2004, pp. 542-544). Although the conceptualization of populism by Mudde as previously referred to is universal, the theoretical framework supporting the research question of this paper limits itself to populism in *contemporary Western society*. Ideally, this concept would include all democracies in Europe and the remaining Anglo-Saxon countries (Australia, New Zealand, the U.S. and Canada). However, the available data limit the case selection to member countries of the European Union, as well as Iceland, Norway and Switzerland.

To measure populism, then, the vote share of populist parties will be studied. Based on the Mudde's conceptualization, Rooduijn and colleagues (2019) have developed a classification of European political parties fittingly titled 'The PopuList' that categorizes them into either populist or non-populist parties, given that they received at least 2% of the vote share during a national parliamentary election since 1998. Available economic data limit the analysis to the 1998-2017 period, which a year short of the same period that Rooduijn et al. have classified populist parties for (1998-2018). Subsequently, the necessary election data for populist parties will be extracted from the ParlGov election database and incorporated into a new dataset for which the data points are country/year. The vote share values are measured in percentages.

*Economic Inequality* – Inequality will be treated as an uneven distribution of wealth. Since income alone excludes many other sources of wealth, income is not entirely representative of inequality in a society. Yet, since measures of inequality are often too limited

to available data, the concept of income inequality will be used. Since Milanovic's analysis also showed the lower middle-class of Western states to be in decline in terms of income, this concept is hopefully sufficiently representative of general economic inequality trends. To measure income inequality, most would point to the Gini coefficient which is a measure based on a country's entire income distribution. For this coefficient, a value of 1 means total inequality, whereas 0 means complete equality. However, some have pointed out that it is oversensitive towards the higher-middle income group in between the bottom 40% and the top 10% (Cobham, Schlogl & Sumner, 2016). Since this higher-middle class is rather resistant to fluctuations in nationwide inequality and thus retain a stable share of the wealth, the Gini coefficient would underestimate the degree of fluctuations in income inequality. Moreover, the coefficient is also difficult to interpret. A different measure, the Palma Ratio, divides the income share of the top 10% with that of the bottom 40%. Ideally, this measure is used, especially because Milanovic showed that it was the lower middle-classes in Western countries that were most strongly impacted by globalization. However, the Palma Ratio is unavailable for too many cases, while the Gini coefficient is more widely available and more universally and consistently measured.

The open access Standardized World Income Inequality Database V8 will be consulted for the Gini coefficients. This database is specifically designed to improve cross-country comparative analyses. The variable *gini_disp* measures the Gini coefficient from zero to 100 by country/year post-tax, post-transfer. The latter two details are crucial considering taxation and redistribution are ways in which inequality can be reduced.

## Data Selection and Validity

Elections are not held every year, so most cases are filtered out. Only those cases for which there is data for both variables will be included. This also filters out Portugal, Malta and Estonia, for they have not experienced populism according to Mudde's conceptualization. This leaves the cases of 28 European countries for analysis. Elections in years before the first elections in which populists (re)emerge into the political scene are attributed the number of 0.00001% for the vote share variable. This addition makes sure that the analysis also accounts for an absence of populism in countries that do have to potential to experience the phenomenon.

The correlation and OLS regression analyses depend on several assumptions for their validity. Regarding the correlation analysis, the cases are not entirely normally distributed so Spearman's *r* will also be used in addition to Pearson's *r*. However, the amount of cases (129) is sufficiently large, so some deviation should not be too much of a problem. In terms of

linearity, the relationship does not appear to be clearly and unambiguously linear, though it can neither be argued that the relationship is obviously non-linear. Yet, having in mind the countless potential factors at play in determining populist vote share in a given country, the relationship still appears surprisingly linear. Most of the noise could be produced by the differences between countries.

As for the regression analyses, the first model incorporating only the Gini coefficient and the populist vote share does not appear to suffer from major statistical issues apart from a few outliers. Around 3% of cases have a ZRE value of higher than 2,58 or lower than -2,58, and there is a single case for which the ZRE value surpasses 3,29. However, the value for Cook's distance was way below 1 (0,068), so the cases were not too influential. The cases belong to Bulgaria, Hungary, Italy and Slovakia, have relatively high populist vote shares and are therefore among the more interesting. Therefore, they will not be excluded. Additionally, the data is not so much a sample of a larger group, but directly representative country data. Lastly, the distribution of errors is again not entirely normal, but this assumption is not that important.

The second model that adds the country dummies introduces the problem of multicollinearity, meaning that the variance of the dummies overlaps too much with the variance of the Gini coefficient. The average VIF value was well above 1, and the Gini coefficient even reached a VIF value of 17,730. This may be highly problematic, as while the Gini coefficient and 14 of the country dummies are significant, the P-values are not to be trusted in these conditions. Indeed, when subtracting the dummies one by one, the P-values hold widely different results each time. When running a correlation including the Gini coefficient and the country dummies, no single dummy predicted the Gini coefficient to a high degree. Instead, all the dummies together caused the great degree of multicollinearity. In a sense this is good, as it means that the multicollinearity is to some extent random and not a product of two variables that predict one another. However, the high VIF values indicate that the model cannot be used to reliably infer from. Other statistical issues include a slight deviation from normally distributed errors and linearity, as well as outliers, though the latter were not influential enough to cause real concern (D$i$ = 0,177).

(Consult the Appendix for more detailed syntax and output).

# Results

*Correlation*

The first step is to see whether income inequality and Western populism do at all correlate. To ensure validity, both Pearson's *r* and Spearman's *r* are used, for which the values are 0,194 ($p$ = 0,028) and 0,234 ($p$ = 0,008). Both measures indicate a significant positive correlation of weak to medium strength, though the value for Spearman's *r* is slightly higher. In Figure 1, the scatterplot of the two variables is displayed, showing a somewhat linear relationship with several outliers on the top left. The correlation is rather high considering the variables are measured on the national level and thus are subject to many kinds of context-specific influences. As such, there is enough grounds for developing a model of linear regression.

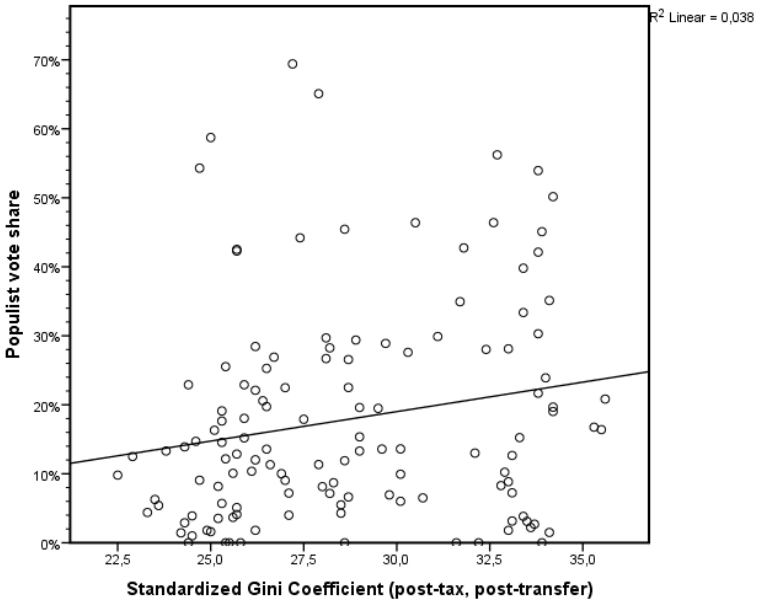


*Figure 1: Scatterplot of income inequality and the populist vote share in the years of elections*

*Models of Linear Regression*

When running the models of OLS linear regression, the following results appear.

**Table 1. Linear models of regression of the populist vote share**

| | **Model 1** | **Model 2** |
|---|---|---|
| (Constant) | -6,612 | -73,360 |
| | (11,067) | (37,067) |
| Gini | 0,854* | 2,319* |
| | (0,383) | (1,099) |
| Country dummies | Excluded | Included |
| $R^2$ | 0,038 | 0,648 |
| Adj. $R^2$ | 0,030 | 0,550 |
| N | 129 | 129 |

*Note: OLS-regression coefficients with standard errors in between parentheses.*
$^{***}p < 0,001$, $^{**}p < 0,01$, $^{*}p < 0,05$

The first model indicates that when the standardized Gini coefficient rises with 1 on a scale from 1 to 100, the populist vote share increases by 0,854%. This effect is significant ($p$ = 0,028). Although there is some minor deviation from two assumptions and therefore the external

validity of the model is questionable, the model does retain its legitimacy regarding the cases it is based on as it is not too strongly affected by influential cases (Field, 2013, p. 251). While not an overwhelming effect, income inequality does appear to be associated with the populist vote share in European countries to a considerable degree. A concrete example can give better insight into the weight of this effect. Suppose the standardized Gini coefficient increases from 27 to 30 (which in the dataset is roughly comparable to a change from the case of Germany in 2002, to the case of Ireland in the same year), the populist vote share would be expected to increase with (0,854 x 3 =) 2,562 percentage points, all else equal. Coincidentally, the actual difference between these two cases comes very close to this percentage (from 4% in Germany to 6,51% in Ireland), although the actual data does vary a lot more with a standard deviation of 0,383%). For further context, the Gini values for the dataset range from a minimum of 22,5 (Denmark in 1998) to a maximum of 35,6 (Latvia in 2011). If a hypothetical country would see its Gini coefficient rise from 22,5 to 35,6, the populist vote share would be predicted to increase with 11,19 percentage points. However, for most countries, the Gini coefficient has only risen with several percentage points, while the vote shares of populists vary much more and reached peaks that were much higher than the model could predict, such as in the Bulgarian election in 2014 in which populist received 50,16% of the votes. Thus, it should come as no surprise that the model can only explain about 3,8% of the variance of the populist vote share in Europe between 1998 and 2017 ($R^2 = 0,038$).

To control for the influence of country-specific contexts on both the extent of inequality and populism, the second model incorporates 28 country dummies. However, this change introduced the major statistical issue of high degrees of multicollinearity. Therefore, the significance of the coefficients and the coefficients themselves are not trustworthy and would fluctuate greatly with small changes in the model. Unfortunately, there are few ways to successfully circumvent this problem. However, the model does still offer useful information and can still be used for predictions. For instance, by subtracting $R^2$ of Model 1 from $R^2$ of Model 2, it becomes clear that that country-specific fixed effects can predict about 60% of the variance of the populist vote share.

(Consult the Appendix for more detailed syntax and output)

# Discussion

The regression analysis shows that there is a significant and positive association between income inequality and the populist vote share in Europe between 1998 and 2017. Potentially, this link could be stronger when using the more accurate and responsive Palma ratio instead of the Gini coefficient. In any case, the findings do support the hypotheses that predict economic inequality to fuel populism, but the analysis is not specific enough to determine which of the two mechanisms (structural injustice or relative economic status) is supported most. Alternatively, the hypotheses could complement one another.

At the same time, income inequality cannot not fully predict the populist trend, as exemplified by the fact that much of the variance of the populist vote share is still unaccounted for. Instead, rising inequality may be one of many sources of public frustration towards elites. The direct causes leading to this frustration may differ significantly per country which could explain the large impact of the country dummy variables on the explanatory power of the second model, (though this effect may also be due to a simply high number of control variables). Yet, it is no coincidence that populism has increased *generally,* so it appears that inequality is part of a larger story that enlarges the populist sentiment in Western societies. To this end, Rooduijn and Burgoon (2018) offer a plausible perspective based on status politics; an increasing number of voters would see their status decline in various ways. While the work of the two authors was discussed in the context of how individual economic status was impacted by aggregate economic conditions, status can also be regarded as a more general concept. Frustration towards elites may arise when voters feel like their status – whether that be social, economic, educational or a status of another sort – decreases compared to other groups. Another theory that has previously remained unexamined in this paper highlights the tension between external global pressures and national (or even local) demands and grievances (Mudde & Kaltwasser, 2018, pp. 1678-1681). In this view, rising economic inequality could be an example of how the elites have neglected the average citizen in favor of free markets, open borders and international cooperation.

To clarify, the interpretations as just described are two of several ways in which the findings of this paper fit the current literature. This uncertainty demonstrates the need for future research into the mechanisms underlying the relationship between income inequality and populism. This paper presented a preliminary analysis incorporating (unsuccessfully) country dummy variables in an attempt to control for a great many variables influencing both inequality as well as populism. Ideally, however, future theoretical analyses should seek to find more

appropriate and specific control variables.

It is also worth noting that within Europe, populists differ in their electoral success. Research into interaction variables is thus also warranted. Political culture, level of education and economic development are a few suggestions. Another lead is the work of Glaeser et al. (2003). If their analysis was correct and inequality does indeed influence public institutions and legislation, then strong checks and balances may prevent or limit institutions from corruption by the rich. As Milanovic pointed out, political outcomes in (Western) Europe are less significantly determined by money, while the U.S. is slowly sliding towards plutocracy (2015, pp. 204-205). However, what exactly the cause would be of this difference is not completely obvious, and neither are the consequences for the relationship between inequality and populism. In addition, this point calls into question to what extent the model is externally valid. The theoretical framework laid out in this paper also covers non-European Western countries (the remaining Anglo-Saxon countries), but the analysis only included cases from Europe. Therefore, a logical future direction for research is the extension of the analysis of this paper to other Western countries.

As for the internal validity of this research, the only real statistical issues with the first model were moderate deviations from normally distributed errors and normally distributed cases (which are not major concerns) and a few outliers, though no influential cases were discovered. However, the model is rather basic and may neglect other, less obvious statistical issues.

# Conclusion

Put concisely, this paper provides preliminary empirical evidence for the hypotheses that link income inequality to contemporary European populism. OLS linear regression predicts that as the Gini coefficient grows with the unit of one, the populist vote share increases with 0,854 percentage points. This effect is significant at the 5% level. The findings can be interpreted to support both hypotheses, as the analysis was not comprehensive enough to test the mechanisms underlying the two hypotheses. Therefore, additional research into the mechanisms behind this supposed relationship is recommended, as are inquiries into economic, structural, cultural and other control and interaction variables.

What this paper exactly means for the relationship between inequality and populism in contemporary Europe other than 'it exists in moderate form' is unclear. This ambiguous conclusion is due to lacking research on the topic. It remains intriguing to consider that previous research on the relationship between economic inequality and Western populism has been absent to such a basic extent, though this blind spot is also understandable to a degree. Most of the debate on populism came from a partisan viewpoint; it took developments such as Brexit and the election of Trump for the matter to be popularized, even though populism had already been on the rise for nearly two decades. Those developments were simultaneously supposedly radical right-wing phenomena, so the radical right received the spotlight over populism. Similarly, most of discussion on populism takes place in the journalistic sphere, which is more prone to opinion and speculation. It appears science is just starting to catch up.

Regarding the general debate on economic inequality, this research emphasizes the consequences that the phenomenon has aside from its direct (im)moral aspects and may further solidify the case against the rising gap between rich and poor. Though, before drawing conclusions too quickly about the relationship between inequality and populism in Western societies, perhaps it is better to let future research explore the links further first.

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# Appendix: SPSS Syntax and Relevant Output

Initial case selection selects only those cases for which there is a value for the Gini and populist vote share variables. Consequently, cases from Portugal, Malta and Estonia are removed from selection. The first elections before the elections in which populists gain a share of the vote are set to 0.00001.

**Note:** Only syntax and relevant output are displayed.

```
COMPUTE filter_$=(Populistvoteshare >= 0 & gini_disp >= 0 & Year >= 1998 ).
VARIABLE LABELS filter_$ 'Populistvoteshare >= 0 & gini_disp >= 0 & Year >=
1998  (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.
```

## **Correlation Analysis** of gini_disp and populist vote share.

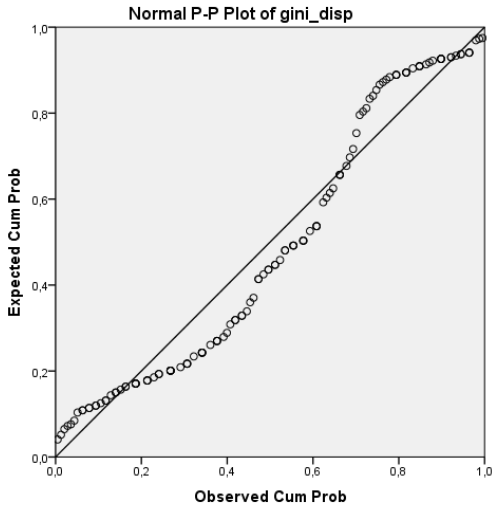
---

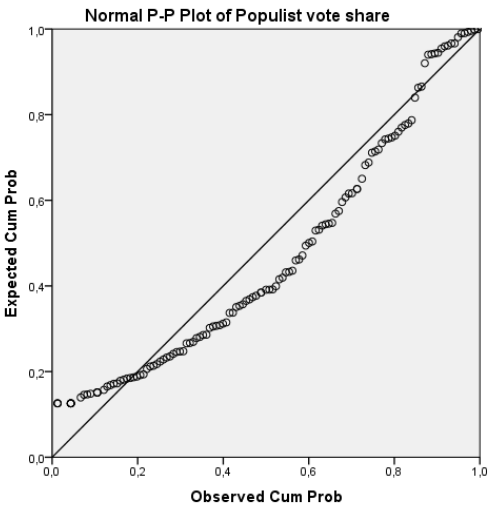
```
PPLOT
  /VARIABLES=gini_disp Populistvoteshare
  /NOLOG
  /NOSTANDARDIZE
  /TYPE=P-P
  /FRACTION=BLOM
  /TIES=MEAN
  /DIST=NORMAL.
```

### PPlot

### gini_disp

### Populist vote share

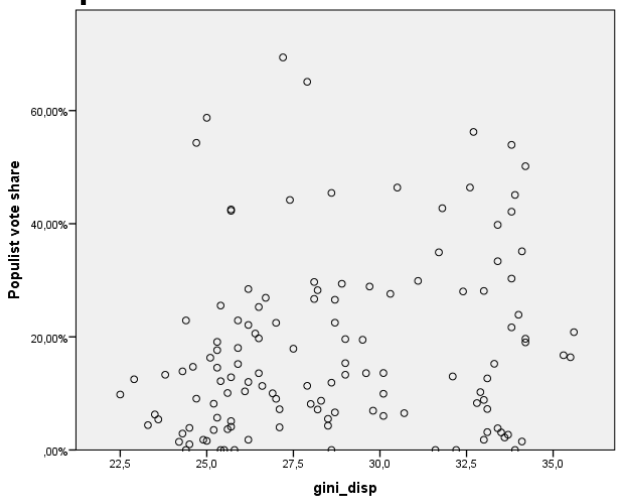


- **Normally distributed cases:** Since the distribution does not appear entirely normal in either of the graphs, Spearman's *r* will also be used in addition to Pearson's *r*. Pearson's *r* does retain some of its value considering that the amount of cases (129) is still acceptable.

```
* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=gini_disp Populistvoteshare
MISSING=LISTWISE
    REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: gini_disp=col(source(s), name("gini_disp"))
  DATA: Populistvoteshare=col(source(s), name("Populistvoteshare"))
  GUIDE: axis(dim(1), label("gini_disp"))
  GUIDE: axis(dim(2), label("Populist vote share"))
  ELEMENT: point(position(gini_disp*Populistvoteshare))
END GPL.
```

## GGraph




- **Linearity**: Although not an unambiguous picture, the graph above does appear to show a slightly linear relationship. Most noise and outliers (especially on the top-left) could potentially be explained by country-specific effects.

```
CORRELATIONS
  /VARIABLES=gini_disp Populistvoteshare
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
NONPAR CORR
  /VARIABLES=gini_disp Populistvoteshare
  /PRINT=SPEARMAN TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

## Nonparametric Correlations

**Correlations**

| | | | Populist vote share | gini_disp |
|---|---|---|---|---|
| Spearman's rho | Populist vote share | Correlation Coefficient | 1,000 | ,234** |
| | | Sig. (2-tailed) | . | ,008 |
| | | N | 129 | 129 |
| | gini_disp | Correlation Coefficient | ,234** | 1,000 |
| | | Sig. (2-tailed) | ,008 | . |
| | | N | 129 | 129 |

**. Correlation is significant at the 0.01 level (2-tailed).

**Correlations**

| | | gini_disp | Populist vote share |
|---|---|---|---|
| gini_disp | Pearson Correlation | 1 | ,194* |
| | Sig. (2-tailed) | | ,028 |
| | N | 129 | 129 |
| Populist vote share | Pearson Correlation | ,194* | 1 |
| | Sig. (2-tailed) | ,028 | |
| | N | 129 | 129 |

*. Correlation is significant at the 0.05 level (2-tailed).

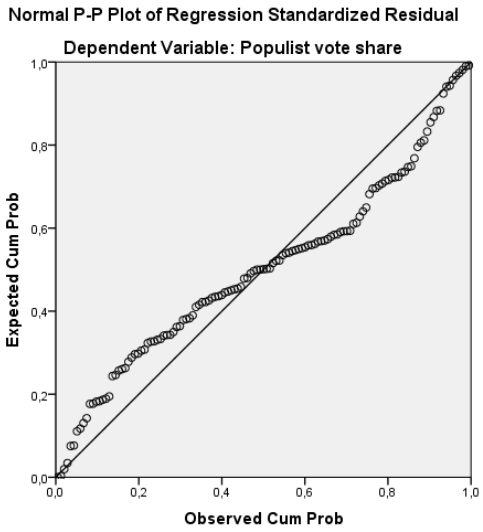
**Models 1 & 2** – OLS regression with populist vote share as the dependent variable, the gini_disp as the independent variable and later adding the country dummies as control variables.

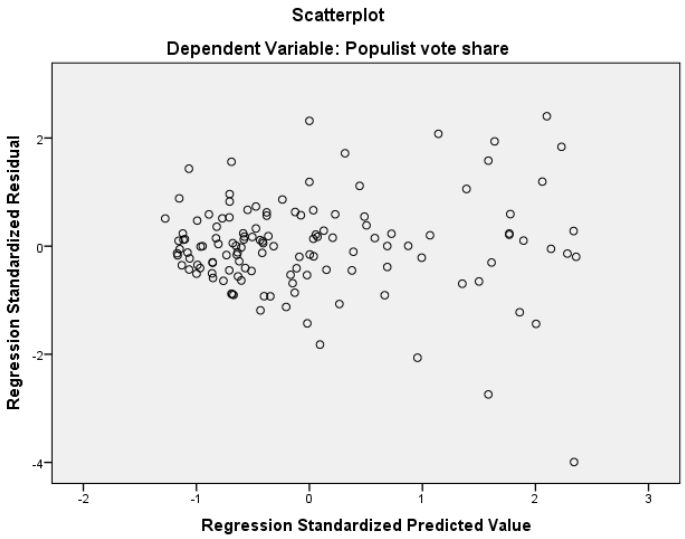
```
SORT CASES BY Year (A).
REGRESSION
  /MISSING LISTWISE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Populistvoteshare
  /METHOD=ENTER gini_disp
  /METHOD=ENTER DummyAustria DummyBelgium DummyBulgaria DummyCroatia
DummyCyprus DummyCzechRepublic
    DummyDenmark DummyFinland DummyFrance DummyGermany DummyGreece
DummyHungary DummyIceland
    DummyIreland DummyItaly DummyLatvia DummyLithuania DummyLuxembourg
DummyNetherlands DummyNorway
    DummyPoland DummyRomania DummySlovakia DummySlovenia DummySpain
DummySweden DummySwitzerland
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS DURBIN.

SORT CASES BY Westerncountries (A).
REGRESSION
```

```
  /MISSING LISTWISE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Populistvoteshare
  /METHOD=ENTER gini_disp
  /METHOD=ENTER DummyAustria DummyBelgium DummyBulgaria DummyCroatia
DummyCyprus DummyCzechRepublic
    DummyDenmark DummyFinland DummyFrance DummyGermany DummyGreece
DummyHungary DummyIceland
    DummyIreland DummyItaly DummyLatvia DummyLithuania DummyLuxembourg
DummyNetherlands DummyNorway
    DummyPoland DummyRomania DummySlovakia DummySlovenia DummySpain
DummySweden DummySwitzerland
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS DURBIN.
```

- **Autocorrelation:** The value for the Durbin-Watson test is 1,578 when sorting the cases by year in ascending order. When sorting the cases alphabetically by country, the value is even closer to ideal, though this method of sorting is not as reliable (2,083). In any case, there is no sign of significant or problematic autocorrelation.

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Populistvoteshare
  /METHOD=ENTER gini_disp
  /METHOD=ENTER DummyAustria DummyBelgium DummyBulgaria DummyCroatia
DummyCyprus DummyCzechRepublic
    DummyDenmark DummyFinland DummyFrance DummyGermany DummyGreece
DummyHungary DummyIceland
    DummyIreland DummyItaly DummyLatvia DummyLithuania DummyLuxembourg
DummyNetherlands DummyNorway
    DummyPoland DummyRomania DummySlovakia DummySlovenia DummySpain
DummySweden DummySwitzerland
  /PARTIALPLOT ALL
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS NORMPROB(ZRESID).

CORRELATIONS
  /VARIABLES=gini_disp DummyAustria DummyBelgium DummyBulgaria DummyCroatia
DummyCyprus
    DummyCzechRepublic DummyDenmark DummyFinland DummyFrance DummyGermany
DummyGreece DummyHungary
    DummyIceland DummyIreland DummyItaly DummyLatvia DummyLithuania
DummyLuxembourg DummyNetherlands
    DummyNorway DummyPoland DummyRomania DummySlovakia DummySlovenia
DummySpain DummySweden
    DummySwitzerland DummyUnitedKingdom
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```




- **No multicollinearity:** Unfortunately, the data shows significant and problematic multicollinearity for model 2, meaning that variance of the control variables (the country dummies) overlap too much with the variance of the gini_disp variable The VIF value for gini_disp is 17,730, and the average VIF value is much higher than 1. However, when examining the correlations, no single country dummy correlates very strongly with the gini_disp variable. And, as dummies are added to the model step by step, the VIF value slowly increases. Hence, the multicollinearity may arise from an abundance of noise that overshadows the variance of the gini_disp variable. The coefficient of the gini_disp variable is significant at the 5% level, as are quite a few dummies. The gini_disp coefficient (*b*) is also nearly three times as high compared to its *b* value model 1.
- **Heteroscedasticity:** Looking at the same plot including ZRESID and ZPRED, there is no real sign of problematic heteroscedasticity. The variance of the residuals is roughly evenly distributed.
- **Normally distributed errors:** While the P-Plot does show significant deviation from a normal distribution, this assumption is not that crucial.

```
REGRESSION
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT Populistvoteshare
  /METHOD=ENTER gini_disp
  /METHOD=ENTER DummyAustria DummyBelgium DummyBulgaria DummyCroatia
DummyCyprus DummyCzechRepublic
    DummyDenmark DummyFinland DummyFrance DummyGermany DummyGreece
DummyHungary DummyIceland
```

```
    DummyIreland DummyItaly DummyLatvia DummyLithuania DummyLuxembourg
DummyNetherlands DummyNorway
    DummyPoland DummyRomania DummySlovakia DummySlovenia DummySpain
DummySweden DummySwitzerland
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /SAVE COOK ZRESID.

FREQUENCIES VARIABLES=ZRE_1
  /ORDER=ANALYSIS.
```

- **Outliers and influential cases**: Under 5% of cases have a ZRE_1 value of higher than 1,96 or lower than -1,96. However, two (around 1,5% of) cases have a ZRE_1 value of higher than 2,58 or lower than -2,58, and there is a single case that has a ZRE_1 value higher than 3,29. These cases will not be filtered out for several reasons. Firstly, they are not as much samples out of a larger group, but a reflection of European political reality. Second, the cases for which these ZRE_1 values are so high, belong to Greece, Hungary, Italy and Slovakia, and indicate a high populist vote share in parliament. Hence, they are also among the most interesting, so it would be far from logical to filter them out. Additionally, as it turns out, these cases were not too influential, as the highest value for $D_i$ (Cook's distance) is 0,177.

## Regression

**Model Summary[c]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,194[a] | ,038 | ,030 | 15,35772% |
| 2 | ,805[b] | ,648 | ,550 | 10,46189% |

a. Predictors: (Constant), gini_disp

b. Predictors: (Constant), gini_disp, Dummy France, Dummy Switzerland, Dummy Cyprus, Dummy Iceland, Dummy Hungary, Dummy Luxembourg, Dummy Ireland, Dummy Germany, Dummy Croatia, Dummy Austria, Dummy Poland, Dummy Belgium, Dummy Netherlands, Dummy Romania, Dummy Spain, Dummy Norway, Dummy Italy, Dummy Czech Republic, Dummy Finland, Dummy Bulgaria, Dummy Sweden, Dummy Latvia, Dummy Slovakia, Dummy Lithuania, Dummy Slovenia, Dummy Greece, Dummy Denmark

c. Dependent Variable: Populist vote share

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 1172,451 | 1 | 1172,451 | 4,971 | ,028[b] |
| | Residual | 29954,169 | 127 | 235,860 | | |
| | Total | 31126,620 | 128 | | | |
| 2 | Regression | 20181,498 | 28 | 720,768 | 6,585 | ,000[c] |

| | | | | | |
|---|---|---|---|---|---|
| Residual | 10945,122 | 100 | 109,451 | | |
| Total | 31126,620 | 128 | | | |

a. Dependent Variable: Populist vote share

b. Predictors: (Constant), gini_disp

c. Predictors: (Constant), gini_disp, Dummy France, Dummy Switzerland, Dummy Cyprus, Dummy Iceland, Dummy Hungary, Dummy Luxembourg, Dummy Ireland, Dummy Germany, Dummy Croatia, Dummy Austria, Dummy Poland, Dummy Belgium, Dummy Netherlands, Dummy Romania, Dummy Spain, Dummy Norway, Dummy Italy, Dummy Czech Republic, Dummy Finland, Dummy Bulgaria, Dummy Sweden, Dummy Latvia, Dummy Slovakia, Dummy Lithuania, Dummy Slovenia, Dummy Greece, Dummy Denmark

**Coefficients[a]**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 (Constant) | -6,612 | 11,067 | | -,597 | ,551 | | |
| gini_disp | ,854 | ,383 | ,194 | 2,230 | ,028 | 1,000 | 1,000 |
| 2 (Constant) | -73,360 | 37,067 | | -1,979 | ,051 | | |
| gini_disp | 2,319 | 1,099 | ,527 | 2,111 | ,037 | ,056 | 17,730 |
| Dummy Austria | 32,171 | 9,326 | ,400 | 3,450 | ,001 | ,262 | 3,819 |
| Dummy Belgium | 24,293 | 10,501 | ,302 | 2,313 | ,023 | ,207 | 4,842 |
| Dummy Bulgaria | 41,265 | 6,636 | ,513 | 6,218 | ,000 | ,517 | 1,934 |
| Dummy Croatia | 18,029 | 9,203 | ,224 | 1,959 | ,053 | ,269 | 3,719 |
| Dummy Cyprus | 9,553 | 12,041 | ,054 | ,793 | ,429 | ,761 | 1,314 |
| Dummy Czech Republic | 23,659 | 11,215 | ,294 | 2,110 | ,037 | ,181 | 5,523 |
| Dummy Denmark | 30,898 | 11,971 | ,419 | 2,581 | ,011 | ,133 | 7,491 |
| Dummy Finland | 23,692 | 11,268 | ,294 | 2,103 | ,038 | ,179 | 5,576 |
| Dummy France | 16,225 | 9,177 | ,157 | 1,768 | ,080 | ,443 | 2,255 |
| Dummy Germany | 17,617 | 9,126 | ,219 | 1,930 | ,056 | ,273 | 3,658 |
| Dummy Greece | 12,831 | 6,336 | ,174 | 2,025 | ,046 | ,477 | 2,098 |
| Dummy Hungary | 54,526 | 8,991 | ,678 | 6,064 | ,000 | ,282 | 3,550 |
| Dummy Iceland | 12,362 | 10,706 | ,098 | 1,155 | ,251 | ,485 | 2,062 |
| Dummy Ireland | 12,902 | 7,956 | ,144 | 1,622 | ,108 | ,446 | 2,241 |
| Dummy Italy | 27,165 | 7,022 | ,303 | 3,869 | ,000 | ,573 | 1,746 |
| Dummy Latvia | 9,372 | 7,062 | ,105 | 1,327 | ,188 | ,566 | 1,766 |
| Dummy Lithuania | 17,722 | 6,625 | ,220 | 2,675 | ,009 | ,519 | 1,927 |
| Dummy Luxembourg | 18,233 | 9,637 | ,203 | 1,892 | ,061 | ,304 | 3,289 |
| Dummy Netherlands | 30,204 | 10,173 | ,409 | 2,969 | ,004 | ,185 | 5,409 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Dummy Norway | 33,056 | 11,197 | ,411 | 2,952 | ,004 | ,182 | 5,506 |
| Dummy Poland | 37,943 | 7,052 | ,471 | 5,380 | ,000 | ,458 | 2,184 |
| Dummy Romania | 9,427 | 6,743 | ,117 | 1,398 | ,165 | ,501 | 1,996 |
| Dummy Slovakia | 53,825 | 10,949 | ,730 | 4,916 | ,000 | ,160 | 6,266 |
| Dummy Slovenia | 22,666 | 12,230 | ,282 | 1,853 | ,067 | ,152 | 6,568 |
| Dummy Spain | 7,162 | 7,673 | ,069 | ,933 | ,353 | ,635 | 1,576 |
| Dummy Sweden | 20,463 | 11,609 | ,254 | 1,763 | ,081 | ,169 | 5,918 |
| Dummy Switzerland | 33,322 | 8,353 | ,414 | 3,989 | ,000 | ,326 | 3,064 |

a. Dependent Variable: Populist vote share