Preferences for Government Redistribution of Income: The Role of Income and the Values of Collectivism and Meritocracy

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1. Introduction

Attitudes toward government redistribution of income vary. Several mechanisms potentially influence one's position at the individual level, such as objective factors like income level and subjective factors like values, beliefs, and perception of inequality. These effects work simultaneously and to varying intensities to influence one's preferences for redistribution.

It is crucial to identify the factors that influence the formation of redistribution preferences because of the adverse effects of income and wealth inequality. People's preferences help shape governmental and institutional responses to income and wealth inequality, whether through democratic participation or other forms of political participation if in a less open polity. In a sense, then, the intensity of redistribution is partly a function of the level of support received by a populace. Lines of argument warn that income inequality leads to dangerous political and economic outcomes, such as opportunist populist movements and economic precarity (Engler & Weisstanner, 2021; Stoetzer et al., 2021; Neckerman & Torche, 2007). If these adverse effects are to be addressed, the people's preferences will play a role as they exert their agency through voting and other forms of political participation.

Therefore, it is necessary to understand what factors influence attitudes toward government redistribution of income, particularly in democratic countries. In democratic settings, the electorate can influence government policy through political participation. In theory, the priorities and policy agendas of a respective democratic government are influenced by the electorate's preferences. Accordingly, if governments address income inequality, it will be because this is what the majority of the electorate endorses. Indeed, the democratic political process is often much messier than this, with special interests often exhorting unique influence on the democratic agenda, but essential to any agenda that aims to limit the adverse effects of income inequality is an understanding of the factors that influence the formation of individual preferences for government redistribution of income.

The following paper focuses on income level and meritocratic and collectivist beliefs to explain the variance in preferences toward redistribution under a democratic and European context. Thus, the guiding question of the paper is, to what extent do monetary self-interest and beliefs around meritocracy and collectivism explain differences in preferences for government redistribution of income across twenty-nine European countries?

1.1. Literature Review

The literature on preferences for redistribution takes on two general forms. First, the literature focuses on individual-level factors, such as income and beliefs, to explain the variance in support for government redistribution. Second, a robust line of literature explores macro-factors, such as income inequality or social spending. The two lines are not mutually exclusive, and it is common for individual predictors to be utilized alongside group-level predictors, thereby taking a multilevel approach. This paper operates at the individual level, so more attention will be given to the literature that operates on the individual level.

Considered first are the macro-minded papers. Oliveria (2015) shows that changes in income inequality positively affect preferences for redistribution over time. Hence, the thirty-four European countries included in their analysis show evidence that as income inequality goes up, the support for redistribution also goes up. In addition, Pittau et al. (2013) set out to explain the differences in demand for government redistribution of income between American states and European countries. At the individual level, the authors found that religious attendance is negatively associated with support for redistribution in the US while it is positively associated in Europe. At the macro level, the paper found that American

individuals living in more unequal states were less supportive of redistribution. In contrast, the opposite was true in Europe: the more unequal and impoverished the country, the more support there was for redistribution. This finding underlines the importance of taking geographic context into account.

Now, a brief introduction of the literature that focuses on individual-level characteristics to explain differences in preferences for redistribution. Duman (2019) considers the role of subjective social class as a determinant of one's preferences for redistribution, a previously overlooked determinant. They find that subjective social class is explanatory of redistribution preferences; identifying as low class increases one's preference for equality of income within and across nations. These findings hold when individual and macro controls are incorporated into the model. The findings are based on a sample of forty-eight countries across the world.

Other papers focus on developing conceptual frameworks to make sense of redistribution preferences. For example, Schokkaert and Truyts (2016) developed a preference model based on three general factors:

1. Self-interest
2. Ideas about when income inequality is justified and not
3. Subjective understandings of the importance of self-interest and the ideas for explaining income distribution

They justify their model under the pretext that redistribution preferences are formed beyond calculations around self-interest. Specifically, they highlight beliefs and values as additional explanatory factors. Their model distinguishes between income differences achieved through luck and effort, with the former being seen as illegitimate and the latter legitimate. Unfortunately, they cannot empirically test their model due to the lack of an adequate data set. Nonetheless, they make a significant theoretical contribution to studying preferences for redistribution.

Next, additional papers stress the importance of the perception of income inequality in determining preferences for redistribution. People will not consistently support redistribution if they do not believe there are currently high levels of income inequality within a society. In addition, perception of inequality interacts with one's ideals and beliefs. For example, Garcia Sanchez et al. (2019) find that the perception of inequality is associated with support for redistribution, but only for those who reject the idea that hard work equates to success and that society provides equal opportunities to all.

Finally, the theoretical framework laid out by Corneo and Grüner (2002). They isolate three competing forces that are hypothesized to affect preferences for redistribution substantially. They are "the homo oeconomicus effect," "the public values effect," and "the social rivalry effect." The first, "the homo oeconomicus effect," is the same as the self-interest; you support redistribution as long as it does not leave you worse off economically. The second effect, public values, is similar to values and beliefs; people do not only generate their preferences from self-interest but also through normative beliefs on how society should operate. The final effect, social rivalry, has not appeared in the other literature discussed so far. This effect depends on whether redistribution improves or worsens one's position in society relative to other groups. Hence, one might benefit financially from government redistribution, but the same policies could make those below you on the income scale even better off, thereby compromising your relative position in society. The authors find evidence of all three effects working simultaneously, so the effects are not mutually exclusive.

The literature showcases several factors and frameworks used to explain the variance in support for government redistribution of income. The income-maximization effect and the values and beliefs

effect are mentioned repeatedly throughout the literature review. The following analysis focuses on these two effects. The financial self-interest factor is relatively straightforward; it aims to measure the extent to which income influences redistribution preferences. Values and beliefs, however, are multi-dimensional and take many forms. In other words, there are an array of values and beliefs that could potentially explain the variance in support for redistribution. The paper isolates meritocracy and collectivism as two critical values that must be examined next to income level. The paper contributes to the existing literature by focusing on two specific values. The effects of income level, meritocracy, and collectivism are tested under the context of twenty-nine European nations (see appendix 1 for full list of countries). Next, the hypotheses and their theoretical foundations are laid out.

1.2. Hypotheses and Theoretical Foundation

H1= The higher one's income level, the less they will support government redistribution of income. The hypothesis is derived from the argument that if redistribution of income lowers one's net income, one will not endorse redistribution because it would leave them worse off. As a result, one would cease to support redistribution when they no longer benefit financially from redistribution. On the other hand, one would support government redistribution if it improved their financial positions and allowed them to access services they otherwise would not be able to afford (e.g., housing benefits, healthcare, etc.). In this scenario, redistribution would be in their interest because it enhances their quality of life. Based on this thinking, one would expect support for redistribution to decrease as income increases.

H2= The more one supports meritocratic values, the less they will support government redistribution of income. Meritocratic beliefs put forth a particular vision of how to construct a healthy, vibrant, and fair society. It promotes a culture and a value system that rewards hard work and ability, and where economic success is achieved through effort, talent, and competency. Accordingly, government redistribution is denounced because it means taking away the rewards, resources, and privileges earned by a hardworking individual and giving them to those who lack the ability and work ethic to sustain a decent livelihood. Why should I support someone else's livelihood when they are not working as hard as I am or performing a high-skilled job? Thus, support for meritocracy is predicted to be associated with lower levels of support for redistribution.

H3= The more one supports collectivism, the more they will support government redistribution of income. Collectivist beliefs prioritize the needs of the group or society over the individual's aspirations. The idea is that no one is taken care of until everyone is taken care of. Thus, collectivism holds that a fair and just society is one where all members are supported. Because of this group mindset, support for collectivism is hypothesized to be associated with higher support for government redistribution. It regards society's financial resources as a means to improve the living standards of the less well-off and the group as a whole.

2. Data and Variables

The theoretical argument is tested using round 9 of the European Social Survey (ESS), and it includes all twenty-nine countries provided. The study's target population is the citizens of Europe's democracies. However, since the ESS does not possess all the democratic countries of Europe, the analysis is limited to a twenty-nine nation subset of the target population. While not all countries are available, such as Romania, Luxembourg, and Greece, the ESS data extensively captures the democratic citizenry of Europe. The original sample size was 49,519, but after removing incomplete responses for the variables of interest, the sample size was reduced to 37,662. The paper's model incorporates ten variables from the original 572 variables in the data set. The included variables are:

1. Government should reduce differences in income levels
2. Household's total net income, all sources
3. Society is fair when income and wealth is equally distributed
4. Society is fair when it takes care of the poor and the in need, regardless of what they give back
5. Society is fair when hard-working people earn more than others
6. By and large, people get what they deserve
7. Country of respondent
8. Gender of respondent
9. Age of respondent
10. Years of education of the respondent

Next, each variable is considered separately, highlighting what the variable is measuring, how it is coded, and why certain choices were made.

Summary statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Redistribution	37,622	3.901	0.985	1	3	5	5
income	37,622	5.299	2.777	1	3	8	10
collectivism	37,622	3.569	0.795	1	3	4	5
meritocracy	37,622	3.474	0.681	1	3	4	5
age	37,622	51.668	18.017	15	37	66	90
education	37,622	13.163	4.163	0	11	16	60
gender	37,622	0.527	0.499	0	0	1	1

The dependent variable is named redistribution, and it measures support for government redistribution of income. The ESS asks respondents to respond to the statement: "The government should take measures to reduce differences in income levels." Respondents can answer with, "agree strongly", "agree", "neither agree nor disagree", "disagree", and "disagree strongly". These categories are represented numerically as five, four, three, two, and one, where one is "disagree strongly," and five is "agree strongly." The ESS has the categories leveled the other way around, where one was "agree strongly" and five was "disagree strongly, but the variable is re-coded, so the model is easier to interpret. Moreover, the regression model (OLS and GLS) treats the dependent variable as a metric interval variable. This is slightly problematic because of the categorical option "neither agree nor disagree"; this response breaks the leveled ordered criterion of a metric interval variable because the logical next step from "agree" is not "neither agree nor disagree" and from "neither agree nor disagree" it is not "disagree." One option would be to make the dependent variable binary by combining "agree" and "strongly agree" and combining "disagree" and "Strongly disagree," but this would remove all respondents who picked the middle option, thereby compromising the representative sample. There are other variables in the model that run into the same problem, so to be consistent and retain the accuracy of a representative sample, the model treats the dependent variable as a metric interval variable. Finally, the descriptive statistics table shows overall high support for government redistribution of income, with a mean score of 3.9.

The regression model consists of three independent variables. The first is income level, and it can take on a value of one to ten, where ten is the highest income decile, and one is the lowest income decile.

This variable is a metric interval variable, and it appears in the regression model in its original form. The second independent variable is support for collectivism. In other words, this variable measures the extent to which one believes it is the job of society as a whole to take care of its people instead of the role of every individual to secure their needs. The ESS data set does not directly measure collectivism, so two questions are combined to achieve a proxy measurement. The first question is, "How much do you agree or disagree with the following statement? A society is fair when income and wealth are equally distributed among all people" and the second question is, "How much do you agree or disagree with each of the following statements? A society is fair when it takes care of those who are poor and in need regardless of what they give back to society". These questions too could be answered with "agree strongly," "agree," "neither agree nor disagree," "disagree," and "disagree strongly." Similar to the variable redistribution, the number-category pair was re-coded so that one is "disagree strongly" and five is "agree strongly." The collectivism variable is created by adding these two responses together and dividing by two. For example, a person who responds "strongly agree" to the first question and "agree" to the second question would get a collectivism score of 4.5 (5+4 = 3, 3/2 =4.5). The mean value for collectivism is 3.56, so the sample population leans towards supporting collectivist beliefs.

The third independent variable is meritocracy. This variable aims to measure the extent to which one supports the organization of society around meritocratic principles, such as distributing resources and power through talent, effort, or achievement. Meritocracy prioritizes the individual and conceives of economic success as largely the product of individual effort and skill. Like collectivism, there is no direct measure of meritocracy in the ESS survey. Hence, two questions in the survey serve as a proxy measurement. The first question is, "How much do you agree or disagree with the following statement? A society is fair when hard-working people earn more than others", and the second question is, "How much do you agree with the following state? By and large, people get what they deserve." Using the same method as the variable collectivism, support for meritocracy is calculated by adding the two questions together and dividing by two. Thus, this variable can take on a value of one through five and can take on a half value (e.g., 3.5) when the aggregate sum of the two questions is an odd number. This variable is also re-coded, so a higher number indicates support for meritocracy, and a lower number signifies less support. The sample mean support for meritocracy is 3.47, so the sample population favors meritocratic beliefs.

The remaining variables are the control/confounding variables of the model. Age, education, gender, and country are confounders because they simultaneously influence the dependent and independent variables. Countries are not homogeneous and possess different values and ideals and different real income levels, so it is reasonable to conclude that the country one is a member of will affect one's income level, views on income redistribution, and position on collectivism and meritocracy. There are twenty-nine countries in the study, so the model contains twenty-eight dummy variables, and France serves as the reference country. Twenty-four of the countries are members of the European Union (Romania, Greece, Luxembourg, and Malta are the missing EU countries), and there are six European countries included that are not part of the European Union (Switzerland, The United Kingdom, Iceland, Montenegro, Norway, and Serbia).

Age is also a confounding variable. The older one is, the more money they make. Being in a higher income decile, it is possible that they would not support redistribution because it would make them worse off. Moreover, it is conceivable that one's values might change with age. Accordingly, one might assume a different position regarding meritocracy or collectivism as they get older, either for or against.

Education level also impacts the dependent and independent variables. Higher education levels are predominantly associated with socially liberal viewpoints and opinions. Considering that income redistribution is often positioned on the left or center-left of the political spectrum, it is credible that

higher education levels would lead to more support for government redistribution. Regarding the independent variables, the more educated one is, the higher the wage they receive in the labor market. Also, receiving more years of education would impact your values and ideals, either imparting you with more social-minded values or values centered around individualism.

The final control variable is gender. It is included for the possibility of a marked difference in support for government redistribution based on gender. Furthermore, due to wage inequalities between men and females, gender impacts income levels. Simultaneously, it is credible that gender could impact one's views on meritocracy and collectivism, so we include it in the model as a dummy variable. One is assigned to females and zero to males.

3. Methodology

The hypotheses are tested with OLS and GLS regression. The normality assumption of linear regression is slightly violated; the dependent variable is left-skewed (e.i., respondents favor government redistribution of income), but the large sample size limits the adverse effects of violating the linear assumption. Moreover, the distribution of the dependent variable is not binomial, so a transformation of the data is not necessary (see appendix 2).

Also, multicollinearity is not an issue; no two variables have a correlation coefficient larger than .36. The VIF test additionally confirms that multicollinearity is not a concern (see appendix 3). The highest VIF value is 1.31 and is for the variable country. Using the conservative benchmark of 2.5, we can forgo any concerns about multicollinearity.

Heteroskedasticity, however, is a problem. The Breusch-Pagan test produces a p-value of nearly zero, telling us to reject the null hypothesis that heteroskedasticity is not present (see appendix 4). With this finding, it is necessary to adjust the methodological approach. One way this is done is by adding robust standard errors to the OLS model, but this does not address the issue of biased estimators. Hence, a generalized least squares (GLS) regression is also used because it accepts homoscedastic errors.

4. Results

The first hypothesis predicted that as income went up, support for redistribution would decrease. Model 1 shows that this is indeed the case. The coefficient on income is the expected change in the mean support for distribution for a one-unit change in income. In other words, with each additional one-unit change in income (e.i., income decile), the model predicts a -0.031 change in support for government redistribution of income, adjusted for collectivism, meritocracy, age, gender, education, and country. Moreover, the relationship is significant at the 95% level, with a standard error of 0.0018. Hence, income level is an important and significant factor in forming preferences regarding government redistribution of income.

The second hypothesis forecasted that the more one supports collectivist beliefs, the more one would support government redistribution of income. The coefficient on collectivism is 0.3998, and it is significant at the 95% level with a standard error of 0.0061. Therefore, a one-unit change in collectivist beliefs (e.g., going from strongly disagree to disagree) is associated with a 0.3998 increase in support for government redistribution of income, holding everything else constant. If one “strongly agrees” with collectivist values, this will increase their support for distribution by nearly two units. The dependent variable can only take on values from 1-5, as these were the response possibilities for the survey questions. Accordingly, a two-unit change is quite substantive. We conclude that collectivism is an

influential and substantive factor in formulating preferences regarding government redistribution of income.

Models

	Dependent variable:		
	Redistribution		
	(Model 1 ----- OLS)	(Model 2 -- OLS RSE)	(Model 3 – GLS)
Income	-0.0319*** (0.0018)	-0.0319*** (0.0019)	-0.0381*** (0.0019)
Collectivism	0.3998*** (0.0061)	0.3998*** (0.0068)	0.3971*** (0.0061)
Meritocracy	-0.1535*** (0.0069)	-0.1535*** (0.0074)	-0.1768*** (0.0071)
Age	0.0009*** (0.0003)	0.0009*** (0.0003)	0.0008** (0.0003)
Education	-0.0045*** (0.0012)	-0.0045*** (0.0013)	-0.0066*** (0.0013)
Gender	0.0671*** (0.0092)	0.0671*** (0.0092)	0.0819*** (0.0096)
Austria	0.0301 (0.0293)	0.0301 (0.0297)	0.0419 (0.0317)
Belgium	-0.1308*** (0.0307)	-0.1308*** (0.0319)	-0.1252*** (0.0324)
Bulgaria	0.2603*** (0.0310)	0.2603*** (0.0300)	0.2973*** (0.0345)
Croatia	-0.0030 (0.0326)	-0.0030 (0.0334)	0.0401 (0.0358)
Cyprus	-0.0406 (0.0412)	-0.0406 (0.0400)	-0.0285 (0.0453)
Czechia	-0.5015*** (0.0315)	-0.5015*** (0.0355)	-0.5258*** (0.0312)
Denmark	-0.6284*** (0.0327)	-0.6284*** (0.0364)	-0.6521*** (0.0314)
Estonia	-0.0687* (0.0299)	-0.0687* (0.0307)	-0.0523+ (0.0312)
Finalnd	0.0701* (0.0309)	0.0701* (0.0312)	0.0744* (0.0330)
Germany	-0.0215 (0.0291)	-0.0215 (0.0304)	-0.0105 (0.0309)
Hungary	0.4136*** (0.0356)	0.4136*** (0.0337)	0.4485*** (0.0402)
Iceland	0.0632 (0.0387)	0.0632+ (0.0383)	0.0635 (0.0421)
Ireland	-0.2242*** (0.0312)	-0.2242*** (0.0328)	-0.1999*** (0.0328)
Italy	0.0606+ (0.0316)	0.0606* (0.0288)	0.0733* (0.0351)
Latvia	0.2274*** (0.0395)	0.2274*** (0.0413)	0.2576*** (0.0438)
Lithuania	0.4456*** (0.0319)	0.4456*** (0.0302)	0.4823*** (0.0358)
Montenegro	-0.0291 (0.0365)	-0.0291 (0.0369)	-0.0288 (0.0393)
Netherlands	-0.2076*** (0.0324)	-0.2076*** (0.0342)	-0.2181*** (0.0330)
Norway	0.0109 (0.0331)	0.0109 (0.0334)	0.0064 (0.0348)
Poland	-0.0305 (0.0372)	-0.0305 (0.0394)	-0.0210 (0.0386)
Portugal	0.1168** (0.0377)	0.1168*** (0.0343)	0.1305** (0.0423)
Serbia	-0.0203 (0.0317)	-0.0203 (0.0328)	0.0106 (0.0342)
Slovakia	0.0100 (0.0383)	0.0100 (0.0390)	-0.0035 (0.0408)
Slovenia	0.0950** (0.0340)	0.0950** (0.0329)	0.0928* (0.0377)
Spain	-0.0312 (0.0342)	-0.0312 (0.0338)	-0.0272 (0.0371)
Sweden	-0.1580*** (0.0322)	-0.1580*** (0.0320)	-0.1575*** (0.0333)
Switzerland	-0.3177*** (0.0339)	-0.3177*** (0.0365)	-0.3410*** (0.0345)
United Kingdom	-0.1506*** (0.0298)	-0.1506*** (0.0311)	-0.1455*** (0.0313)
Constant	3.1898*** (0.0469)	3.1898*** (0.0508)	3.3306*** (0.0486)
Observations	37,622		37,622
R^2	0.2006		0.2192
Adjusted R^2	0.1999		0.2185
Residual Std. Error (df = 37587)	0.8808		0.2388
F Statistic (df = 34; 37587)	277.4415***		310.2953***

The third hypothesis predicted that support for meritocracy would decrease support for government redistribution of income. The regression analysis confirms this hypothesis. With a negative coefficient of -0.153, support for meritocratic values subtracts from supporting redistribution. The effect is significant at the 95% level and has a standard error of 0.0069. The coefficient on meritocracy suggests that average support for redistribution will decrease by 0.153 through a one-unit change in support for meritocracy. This effect is not as substantial as the effect of collectivism, but it is nearly five times bigger than the effect of income.

Next, there are the control variables. The age, education, and gender coefficients are significant at the 95% level. The negative effect of education is slightly surprising, considering education is generally associated with socially-minded viewpoints like redistribution. On the other hand, the effect of age and gender (e.i., being female) are positive, so they are predicted to enhance support for government redistribution.

Finally, the country dummy variables are mixed in their effect. Country dummy variables were included to control for country characteristics that would influence average support for government redistribution. A two-way ANOVA test confirms that their inclusion in the model enhances its overall performance (see appendix 5). For the variable country, the test produces an F-value of 82.59, and the corresponding p-value is significant at the 95% level. As a result, we can conclude that there is a real difference in mean support between the countries. However, the coefficients on each dummy variable tell a slightly different story: not all the coefficients are significant. Nonetheless, sixteen countries did generate significant effects. France was set as the reference country because of its size and high levels of social spending.

The methodology section mentioned model 1 is affected by heteroskedasticity. Therefore, model 2 incorporated robust standard errors, which address the issue of inaccurate confidence interval estimates and inaccurate test statistics. Nevertheless, the introduction of robust standard errors does not change the significance of the explanatory variables. In fact, the only change in significance occurs for the country dummy variables of Italy and Portugal, where the former is now significant at the 95% level, and the latter is now significant at nearly the 100% level. Hence, the significance of the model does not change all that much despite the robust standard errors. The incorporation of robust standard errors, however, does address the second concern of heteroskedasticity: the possible inaccuracy of the OLS estimators. To address this issue, a generalized least squares model is also estimated.

Model 3 is the generalized least squares model. The effects of the explanatory and control variables work in the same direction, but there are changes in effect size and significance. Of the three explanatory variables, the meritocracy coefficient changes the most, from -0.1535 in model 1 to -0.1768 in model 3. The change in the effect size is just over two-one-hundredths. The other notable changes concern the country dummy variables; Estonia becomes insignificant under the GLS model, while Italy becomes significant at the 95% level (although Italy is significant with the introduction of robust standard errors in model 2). Finally, Slovenia became less significant, downgrading from a significance level of 99% to 95%; nonetheless, it remains significant.

Next, a quick overview of the goodness of fit statistics. Model 1 and Model 2 have an r-square of 20.06%, meaning the model explains just over 20% of the variance of the dependent variable. Model 3, on the other hand, has a slightly higher R-squared at 21.92%. Hence, the GLS model not only addresses the issue of inaccurate coefficients due to heteroskedasticity, but it also explains slightly more of the variance in preferences for government redistribution. Model 3 also has a small residual error, signifying

that this model does a better job of minimizing the average distance between the data points and the regression line than models one and two.

5. Discussion

The paper set out to determine if income and support for meritocratic and collectivist helped explain the inequalities in support for government redistribution of income. Specifically, the paper hypothesized that as income increases and one's support for meritocracy goes up, the less one will support redistribution of income. The final explanatory variable–collectivism–was predicted to influence support for government redistribution of income positively; that is, the more one agrees with collectivist principles, the more they would support redistribution. The regression analysis confirmed the hypotheses. Hence, income, meritocracy, and collectivism do indeed help explain differences in levels of support for government redistribution.

However, the effects of these variables are not equally substantive. According to model 3, collectivism induced the most considerable change (0.39) in the dependent variable per a one-unit change in collectivism. Considering the dependent variable operates on a 1-5 scale, 0.39 is a substantive effect. The effect size for meritocracy is -0.17, and for income, it is 0.03; the latter is relatively non-substantive. If one were in the 10th income decile, the model predicts only a modest .30 deduction in support for government redistribution. Finally, the model explains 21% of the variation in the support for redistribution, so a substantial degree of variance remains unexplained.

The study has several limitations. The most troubling is the dependent variable. The OLS and GLS models treat the dependent variable as a metric interval variable, but, at heart, support for government redistribution is not a valid metric interval variable. One way to get around this issue would have been to use logistic regression and transform the dependent variable into a binary variable. This approach, however, would have compromised the representative sample by removing all respondents who answered, "neither agree nor disagree." It is, therefore, recommended that future surveys develop a better approach to measuring support for government redistribution.

Another limitation of the study is how meritocracy and collectivism are measured. These values are multi-dimensional, and the two sets of respective questions used to measure meritocracy and collectivism are not extensive. Future analysis should develop a more exhaustive measuring scheme for these two values. Furthermore, meritocracy and collectivism are not the only values that influence people's preferences for redistribution. For example, political and economic values are also plausible factors, such as principles concerning democratic socialism or neoliberalism. In addition, the model left out other factors highlighted in the literature review. Class identification was highlighted as an essential factor, and so was the perception of inequality. Future research on this topic would do well to add these factors to the model. Finally, the model specification cannot explain what country characteristics account for differences in support for government redistribution between countries. The models include country dummies, but this does not help explain which specific macro factors account for the differences between countries. Hence, future research should include multi-level regression methods.

In the end, the analysis provided a worthwhile contribution: it identified two specific value systems that contribute to the formation of individual preferences regarding government redistribution of income. Moreover, the relatively non-substantive effect of income shows that income maximization is not the driving force of preference formation under the context of the twenty-nine countries included in the study. This suggests that values and ideas perhaps play a more influential role in forming redistribution

preferences, which is an important takeaway for policymakers and citizens concerned with contemporary dynamics of income and wealth inequality.

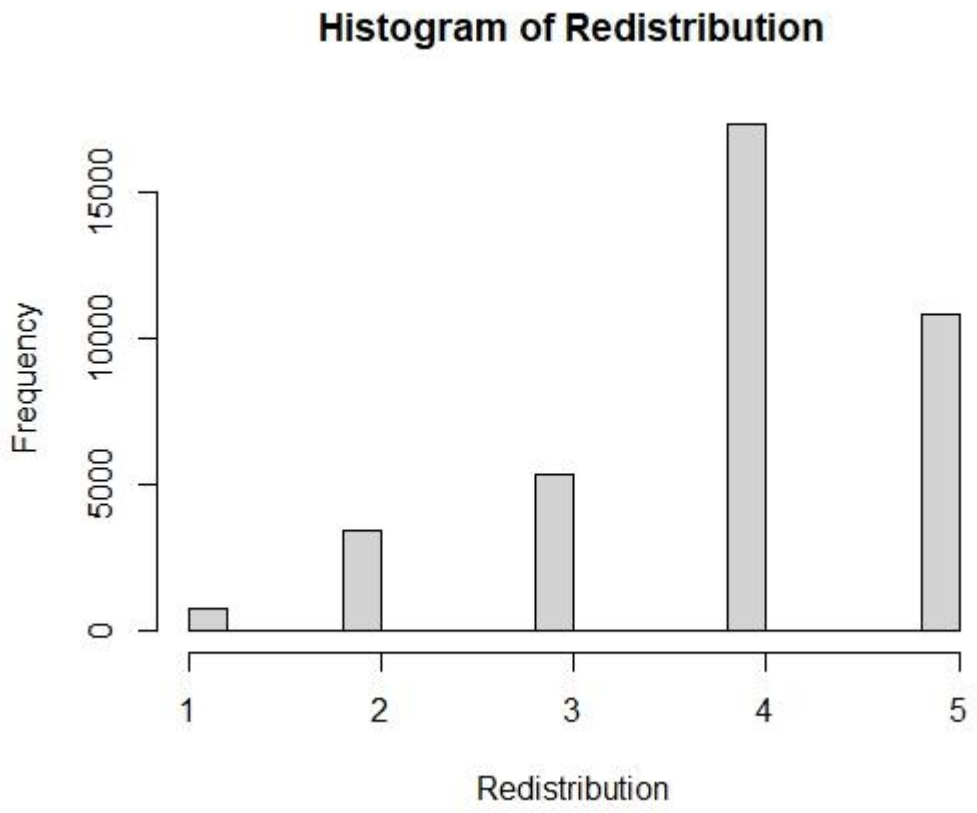
Appendix 1

Values	Categories	N
AT	Austria	2499
BE	Belgium	1767
BG	Bulgaria	2198
CH	Switzerland	1542
CY	Cyprus	781
CZ	Czechia	2398
DE	Germany	2358
DK	Denmark	1572
EE	Estonia	1904
ES	Spain	1668
FI	Finland	1755
FR	France	2010
GB	United Kingdom	2204
HR	Croatia	1810
HU	Hungary	1661
IE	Ireland	2216
IS	Iceland	861
IT	Italy	2745
LT	Lithuania	1835
LV	Latvia	918
ME	Montenegro	1200
NL	Netherlands	1673
NO	Norway	1406
PL	Poland	1500
PT	Portugal	1055
RS	Serbia	2043

SE	Sweden	1539
SI	Slovenia	1318
SK	Slovakia	1083

Note 1: The countries included in the regression and the respective sample size from each country

Appendix 2



Note: A frequency plot of the response options for the dependent variable should government reduce difference in income

Appendix 3

	GVIF	DF	GVIF^(1/(2*Df))
income	1.24	1	1.11
collectivism	1.13	1	1.06
meritocracy	1.05	1	1.02
age	1.10	1	1.05
education	1.24	1	1.11
gender	1.03	1	1.01
country	1.31	1	1.00

Note: The results of the VIF test, carried out to detect the possibility of multicollinearity

Appendix 4

Breusch-Pagan test

Model 1:

BP = 1504, df = 34, p-value < 2.2e-16

Note:

Note: The Breusch-Pagan test, carried out to detect the presence of homoscedasticity

Appendix 5

	Df	Sum Sq	Mean Sq	F value	Pr(>F)	
income	1	1171	1171	1509.30	< 2e-16	***
collectivism	1	3847	3847	4958.93	< 2e-16	***
meritocracy	1	374	374	482.38	< 2e-16	***
age	1	27	27	35.10	3.16e-09	***
education	1	31	31	40.03	2.53e-10	***
gender	1	74	74	94.88	< 2e-16	***
country	28	1794	64	82.59	< 2e-16	***
Residuals	37587	29157	1			

Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Note: The ANOVA test results, carried out to determine if the model improves with country dummy variables

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