Multiple Regimes in the Preferences for Redistribution

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Abstract

This paper provides novel evidence of nonlinearities in the formation of preferences for redistribution by uncovering evidence of multiple regimes consistent with the presence of multiple equilibria and multiple steady states. Using threshold regressions that account for the endogeneity of the threshold variable, countries are classified into three groups that share common characteristics. Finally, our analysis reveals substantial evidence of parameter heterogeneity in the coefficient estimates of threshold regressions.

Keywords: Preferences for Redistribution, Threshold Regression, Multiple Regimes.

JEL Classification Codes: C50, P16, E60, Z13.

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1 Introduction

Since the seminal work of Meltzer and Richard (1981), who studied the role of income inequality in redistributive policies, a substantial body of work has emphasized the existence of nonlinearities and multiple equilibria in the formation of preferences for redistribution. Piketty (1995) investigates how personal experiences can explain persistent differences in preferences for redistribution. Benabou and Ok (2001) suggested that even poor individuals could prefer lower redistribution because of their prospect of upward mobility. Alesina and Angeletos (2005) and Benabou and Tirole (2006) investigate how the heterogeneity in the perceptions about the belief in a just world can explain the co-existence of the American Dream and the European Pessimistic equilibria. More recently, Acemoglu, Robinson, and Verdier (2015) argue that there exists an incentive-insurance trade-off that generates multiple equilibria. One equilibrium is characterized by technological leaders where innovation is encouraged at the cost of welfare policies, and another with followers which favors a stronger welfare state at the cost of innovation.

An important implication of all the aforementioned models is that the formation of redistributive preferences is not linear. Instead, it is characterized by multiple regimes described by threshold-type structures. Surprisingly, the standard empirical model in the literature of preferences for redistribution focuses on the linear regression model (e.g., Alesina and Giuliano (2011)).[1] In this study, we utilize a threshold regression, extending the linear model by sorting the data into groups of observations each of which obeys the same linear model of preferences for redistribution according to threshold variables as proposed by the aforementioned theories.

[1]While the dependent variable is not continuous, the standard practice relies on linear models and investigates the robustness of their results using ordered logit or ordered probit models. Online Appendix Table A2 presents the results.

Our methodological approach bears similarities to Keely and Tan (2008), who employed classification techniques to analyze variation in redistribution preferences across distinct data-driven identity groups. Notably, their approach presupposes the exogeneity of the threshold variable. However, this assumption poses a challenge in our context since the threshold variable that delineates these groupings is, by its nature, an equilibrium outcome. Specifically, our set of threshold variables encompasses country-level indicators implied by various theories (e.g., Durlauf, Kourtellos, and Tan (2008)). These theories cover areas such as social identity (Akerlof and Kranton (2000)), beliefs on fairness (Alesina and Angeletos (2005) and Benabou and Tirole (2006)), inequality (Piketty (1995)), institutions (Acemoglu, Egorov, and Sonia (2020)), and religiosity (Scheve and Stasavage (2006)). Predominantly, these theories highlight that the threshold variable intrinsically operates as an equilibrium outcome variable and is potentially endogenous, thereby introducing the risk of biased and inconsistent results. To mitigate this, our study adopts an estimation method that accounts for the endogeneity of the threshold variable, as proposed by Kourtellos, Stengos, and Tan (2016).

The main finding of the paper is that there is substantial evidence for the presence of multiple regimes related to the average level of preferences for redistribution, trust, GDP per capita, pre-tax, pre-transfer Gini index of inequality, democracy, and importance of God in life. Our analysis gives rise to three groups of countries that share common characteristics. Finally, we document substantial evidence of parameter heterogeneity in the coefficient estimates of threshold regressions.

2 Methodology

For each individual $i = 1, 2, ..., n$, in country $c = 1, 2, ..., C$, at time $t = 1, 2, ..., T$, preferences for redistribution, R_{ict}, are assumed to follow the threshold regression model

$$R_{ict} = \begin{cases} \beta_1' X_{ict} + \iota_c + \iota_t + \epsilon_{ict} & \text{iff} \quad q_{ct} \leq \gamma, \\ \beta_2' X_{ict} + \iota_c + \iota_t + \epsilon_{ict} & \text{iff} \quad q_{ct} > \gamma, \end{cases} \tag{1}$$

where X_{ict} is a set of individual characteristics uncorrelated with ϵ_{ict}, which is an $i.i.d$ error term. The threshold variable q_{ct} is a scalar variable, measured - one at a time - by six distinct indicators. These encompass social identity, beliefs on fairness, inequality, institutions, and religiosity.[2] The threshold parameter γ is treated as an unknown parameter to be estimated. For values of the threshold variable q_{ct} below γ the coefficient vector of X_{ict} is β_1, while for values of the threshold variable q_{ct} above γ it is β_2. This model nests the linear model when $\beta_1 = \beta_2$. We account for country and time unobserved heterogeneity using country fixed-effects and time-effects denoted by ι_c and ι_t.

The threshold variable q_{ct} is posited to be correlated with the error term ϵ_{ict}, rendering it endogenous. To address this, our identification strategy leans on two distinct excluded instrumental variables. First, we employ the lagged value of each threshold variable, q_{ct-1}. We base this choice on our conviction in the persistence of the indicators we used as threshold variables. Specifically, while the present values of q_{ct} might be influenced by their preceding states due to dynamics like inertia or adjustment processes, we argue that such influences from q_{ct-1} remain unaffected by contemporaneous shocks captured in the error term ϵ_{ict}. Hence, we assume that these lagged values are uncorrelated with the error term, affirming their validity as instruments.

[2] In Online Appendix Tables A3 and A4, we investigate additional threshold variables with similar findings that give rise to alternative patterns of heterogeneity.

Second, we draw upon insights from the empirical cross-country growth literature, which has presented a plethora of instrumental variables related to fundamental determinants of development. From this, we extract the first factor f_c by conducting a factor analysis on an array of deep root (time-invariant) country attributes. Consistent with our previous assumption, we hypothesize that this factor retains a correlation with q_{ct} while maintaining orthogonality to the error term. A discussion of the variables that underpin these deep root country attributes will be deferred to the data section of this paper.

Estimation and inference of equation (1) was developed by Hansen (2000) assuming an exogenous threshold variable and Kourtellos, Stengos, and Tan (2016) who allow for the endogeneity of the threshold variable using regime specific control functions. The estimation of the threshold parameter is based on the concentrated least squares method, while the slope coefficients are obtained using least squares. We test for the null hypothesis of a linear model against the alternative of a two-regime threshold regression model using the bootstrap sup-Wald test of Hansen (1996).

3 Data

We employ the World Values Survey (WVS) that monitors changing values and their impact on social and political life. We use wave 5 (2005-2009) and wave 6 (2010-2014) that cover 51 countries and a total of 69,342 individuals. Summary statistics are given in Table 1 and all the variables are described in Online Appendix Table A1.

Our main measure of preferences for redistribution R_{ict} is given by following survey question. '*...How would you place your views on this scale? 'People should take more responsibility to provide for themselves' (takes the value 1) versus 'The government should take more responsibility to ensure that everyone is provided for' (take the value 10). If your views fall*

somewhere in between, you can choose any number in between. For robustness purposes, we also provide evidence using an alternative measure of preferences for redistribution used by Klor and Shayo (2010): How would you place your views on this scale? 'We need larger income differences as incentives for individual effort' (takes the value 1) versus 'Incomes should be made more equal' (take the value 10). If your views fall somewhere in between, you can choose any number in between. We call this variable preferences for equality.

The vector of regressors X_{ict} includes income, education, age, gender, marital and employment status. Since redistribution is the direct transfer from rich to poor, through tax, the former will oppose it and the latter will favor it (e.g., Meltzer and Richard (1981)). Education may be thought as a prospects of upward mobility devise. In this case, individuals with higher education, reflecting higher expected future incomes, will oppose redistribution (e.g., Alesina and Fuchs-Schundeln (2007)). Strong family ties societies rely more on the family than on the market and the government for production of income and insurance (e.g., Alesina and Giuliano (2015)). In the cases where the individual is a direct recipient of a transfer program, such as unemployment compensation, then he/she be in favor of redistribution. Finally the majority of the literature, suggest that females prefer more redistribution than males. Alesina and Giuliano (2011) provide a comprehensive recent survey for the determinants of the preferences for redistribution.[3]

As argued in the introduction, most theories of preferences for redistribution suggest the presence of nonlinearities and multiple equilibria. Our set of six threshold variables includes social identity, beliefs on fairness, inequality, institutions, religion. For social influences, we use the average preferences of redistribution. As argued by Durlauf (1999), social interactions create incentives for polarization and income inequality. Kourtellos and Petrou (2022) investigate the role of social social identity as captured by social interactions in preference for redistribution. Social identity is broadly defined as the self-image in social categories that

[3]For robustness exercises in the Online Appendix, we augment the set of individuals characteristics with ideology, social mobility, and religion denominations.

generate a set of social influences. Akerlof and Kranton (2000) formally incorporate social identity into a behavioural model and Costa-i Font and Cowell (2015) provide an excellent survey of social identity and redistributive preferences.

For beliefs on fairness, we use the variable General Trust measured by the share of the individuals who believe that most people can be trusted. Beliefs about fairness can lead to multiple equilibria in mobility and inequality. Alesina and Angeletos (2005) and Benabou and Tirole (2006) explain the co-existence of the American Dream and the European Pessimistic equilibria using models that highlight the role of beliefs about "social justice" or "fairness" in the income process. In particular, these models investigate the preferences of the society for rewarding hard work and individual talent and the social preference for reducing the degree of inequality due to luck. The interplay between inequality and redistribution generates multiple equilibria of self-fulfilling beliefs about the role of effort in income inequality. For development, we use the GDP per capita. The idea is that that preferences for redistribution is a complex process and cannot be solely determined by individual attitudes as argued by Bowles and Gintis (1993). To the extend that countries are clustered in convergence clubs - for example, due to a poverty trap as in Galor and Zeira (1993), the GDP per capita can serve as a potential threshold variable.

For inequality, we use net Gini. The joint dynamics of the wealth distribution and redistribution process can give rise to multiple steady states that characterize welfare states and laissez-faire societies. For instance, as argued by Benabou (2000) when capital and insurance markets are imperfect, redistribution policies can have a positive role in a model with a more realistic political system than the median voter framework.

For institutions, we use Democracy that measures the degree of democracy, ranging from strongly democratic (+10) to strongly autocratic. The process of democratization and the political system are clearly linked to preferences for redistribution (e.g., Lizzeri and Persico

(2004). More generally, Acemoglu and Robinson (2008) show that the equilibrium institutions and the distribution of resources emerge as outcomes of the interaction between de jure political power and investments in de facto political power (e.g., lobbying, bribery) to maintain their hold on de facto political power. However, as Acemoglu, Egorov, and Sonia (2020) show the lack of trust and coordination between groups, can generate multiple equilibria and institutional changes may never materialize.

For religion we use the Importance of God. Given that individuals can use religion and redistribution as substitute mechanisms to insure themselves against adverse life events, Scheve and Stasavage (2006) argue that the presence of social interactions can generate multiple equilibria consistent.

Finally, as discussed earlier, in addition to using the lagged values of each threshold variable as instrumental variables, we also employ the first factor derived from a number of deep root (time-invariant) country attributes. These encompass genetic, linguistic, religious, and geographic distances, as well as ethnic, linguistic, and religious fractionalization, legal origin, internal distance, and factors like being landlocked and latitude.[4] Our choice is guided by cross-country growth studies, which emphasize how these deep-rooted factors historically shape and influence the contemporary determinants of growth and thereby the level of development.

For instance, Spolaore and Wacziarg (2016) posit that nations with shared ancestries—whether genetic, linguistic, or religious—exhibit more intensive exchanges of goods, capital, innovations, and technologies. Alesina, Devleeschauwer, Easterly, Kurlat, and Wacziarg (2003) present compelling evidence linking fractionalization indices to variables like economic growth, GDP per capita, and institutional quality. LaPorta, Lopez-de Silanes, Shleifer, and Vishny (1999) highlight the influence of a country's legal system on government performance, demon-

[4]The data on distance are in a bilateral form. In order to use them in our analysis we use the US as a reference country, so each variable is the distance from US.

strating its effects on facets such as property rights, investment, taxation, government size and efficiency, corruption, and education. Lastly, Gallup, Sachs, and Mellinger (1999) underscore the significance of geography in shaping economic development, noting its observable impact on GDP per capita, economic growth, and productivity.

4 Results

In this section we present our empirical findings. We start our analysis by providing evidence of threshold effects and inference for the threshold parameter in Table 2 using six alternative threshold variables. Panels A and B use Preferences for Redistribution as a dependent variable while Panel C uses Preferences for Equality. The threshold models in Panels A and C treat the threshold variable as endogenous while Panel B as exogenous. The table shows the bootstrap p-value and the Sup-Wald statistic for the null hypothesis of a linear model against the alternative of a threshold model.

In all cases, we reject the null of linearity at the 1% significance level suggesting the presence of multiple regimes in the sense that the threshold variables identify groups of countries that obey distinct linear models of preferences for redistribution. Put differently, the countries are organized into two regimes for each threshold variable, depending on whether the threshold variable is below or above the threshold estimate. The table also reports the point estimate of the threshold parameter, $\hat{\gamma}$, along with the associated 90% confidence interval, the joint sum of squared residuals (SSR), the Bayesian information criterion (BIC), and the sample size of the two regimes. We find that the threshold model with the smallest joint SSR or BIC is the one that uses trust as a threshold variable regardless of whether the threshold variable is treated as endogenous or exogenous. Interestingly, the various threshold models do not differ substantially in terms of BIC.

Then, we present the regression coefficient results in Table 3. As in the previous table, Panels A and B use Preferences for Redistribution as a dependent variable while Panel C uses Preferences for Equality. The threshold models in Panels A and C treat the threshold variable as endogenous while Panel B as exogenous. Focusing on Panel A, the first column presents the results for the linear model for comparison purposes. Our findings are consistent with the literature both in terms of significance and sign (e.g., Alesina and Giuliano (2011), Alesina and La Ferrara (2005)). In particular, we find that female and unemployed individuals prefer more redistribution, while wealthier and more educated individuals prefer less redistribution.

We then shift to our main findings. The remaining columns of Table 3 present the regime-specific regression coefficients according to the six alternative threshold variables. While the regime-specific coefficient estimates are similar to the linear model in terms of the sign, we document substantial evidence of parameter heterogeneity in terms of magnitude and significance between the two subsamples for all regressors and all threshold models. Focusing on the case of income, we see that the coefficient of income is negative across all specifications and subsamples as in the linear model. However, the difference in the coefficients of income between the two subsamples is statistically significant at the 1% in the models with Gini and democracy as threshold variables and at the 10% in the models with trust and GDP per capita. In particular, in these models, we see that the role of income is more substantial in countries with high trust, high development, low inequality, and especially, low democracy.

Focusing on the models that allow for for the endogeneity of threshold variables, Figure 1 shows the boxplot of the average preferences for redistribution for the two groups that shows their substantial difference in their distribution. In Figure 2 we present a heat map with the various sub-samples of countries. For each threshold regression model, we classify the countries in two regimes based on their corresponding threshold variable. For example, in the case of the model with country average preferences for redistribution as a threshold variable, countries with threshold values above 5.29 which corresponds to Mali are classified into the

upper regime and depicted by blue colors. Likewise, countries with threshold values below 5.29 are classified into the lower regime and depicted by green colors. To allow for possible misclassification, darker colors denote the countries that lie outside the 90% confidence interval of the threshold parameter $[5.19, 5.67]$, which corresponds to the Netherlands and Mexico, respectively. Countries that lie within the confidence interval are depicted with the corresponding lighter colors.

This classification analysis gives rise to three groups of countries. The first group of countries includes Australia, Canada, New Zealand, UK, and the United States. These countries share low preferences for redistribution, low importance of God, high trust, high development, high inequality, and high democracy.[5] In the second group, we have Italy, Japan, South Korea, and Taiwan, which have low importance of God, high preferences for redistribution, high trust, high development, high inequality, and high democracy.[6] The third group consists of countries with low trust, low development, high preferences for redistribution, the high inequality, high democracy, and high importance of God. This group includes Brazil, Chile, Colombia, Ghana, Mexico, Peru, Romania, and Turkey.[7] The remaining countries are left unclassified due to the lack of common patterns or missing observations in our samples.

Finally, we note that we find more evidence of statistical significant differences between the regression coefficients of the two regimes when we account for the endogeneity of threshold variables in both Panels A and C.

[5] Finland, the Netherlands, and Switzerland have the same characteristics but low inequality.

[6] There are three countries with slightly different characteristics: Sweden (low inequality), Uruguay (low development), and Spain (low trust).

[7] India and Poland have the same characteristics but low importance of God while Egypt, Morocco, Nigeria, and Zimbabwe low democracy.

4.1 Robustness Analysis

We conduct three sets of robustness exercises, which are presented in the Online Appendix Tables. These exercises focus on the Preferences for Redistribution and take into account the endogeneity of the threshold variable.

The first set examines alternative proxies for threshold variables, detailed in Online Appendix Tables A3 and A4. These results indicate that the evidence of heterogeneity is consistently observed across all the alternative threshold variables considered. The second set expands our baseline model by incorporating additional regressors. Details of these regressors can be found in Online Appendix Tables A5 through A8. Similarly, the evidence of heterogeneity remains consistent. Lastly, we perform a sensitivity analysis concerning the selection of instruments, as showcased in Tables A9 and A10. We provide evidence suggesting that our results are robust regardless of whether we employ only the lagged value of each threshold variable as instrumental variables, or solely the first factor derived from various deep-rooted country attributes. Notably, most of the sample splits remain unchanged, except when the threshold variables GINI and Democracy are used in the case of the first factor. Across all these robustness tests, our primary conclusion, which provides evidence for the presence of parameter heterogeneity in the redistribution preferences, remains unchanged.

It is important to mention that in all these robustness exercises, changes in sample splits can lead to some variations in the size, sign, and significance of the coefficients for regressors across different regimes. This problem mainly arises in the robustness exercises when we consider alternative threshold variables and incorporate additional regressors. This potential sensitivity of coefficient estimates hints at the challenge of model uncertainty in the realm of threshold regressions. However, this issue extends beyond the scope of this paper. Future research is needed, especially as the literature has not fully developed methods addressing model uncertainty beyond linear models.

5 Conclusion

In this paper, we uncover evidence of multiple regimes in preferences for redistribution, consistent with the theory. In particular, using threshold regressions that account for the endogeneity of the threshold variable we classify the countries into three groups that share common characteristics. Finally, our analysis reveals substantial evidence of parameter heterogeneity in the coefficient estimates of threshold regressions.

Table 1: **Descriptive Statistics**

	Obs.	Mean	SD	Min	Max
Preferences for Redistribution	69,342	5.969	2.882	1	10
Preferences for Equality	68,956	5.093	2.840	1	10
Regressors					
Age	69,342	4.196	1.645	1.5	10
Age Square	69,342	20.316	15.357	2.25	100
Female	69,342	0.489	0.5	0	1
Married	69,342	0.625	0.484	0	1
Unemployed	69,342	0.087	0.281	0	1
Secondary	69,342	0.434	0.496	0	1
Tertiary	69,342	0.277	0.448	0	1
Income	69,342	4.951	2.245	1	10
Threshold Variables					
Pref. for Redistribution (Country average)	62	6.028	0.995	4.32	8.1
General Trust	61	0.253	0.184	0.03	0.7
GDP per Capita	70	9.556	1.006	7.1	11
Gini (Net)	66	36.943	8.011	23.4	57
Democracy	71	7.293	4.186	-7	10
Importance of God	62	7.835	1.888	3.66	9.9

Table 2: **Threshold Tests and Inference for the Threshold Parameter**

This table presents tests, and estimation results of the threshold parameter using six alternative threshold variables. Panels A and B use Preferences for Redistribution as a dependent variable while Panels C and D use Preferences for Equality. The threshold models in Panels A and C treat the threshold variable as endogenous while Panels B and D as exogenous. The first column presents the alternative threshold variables. The second and third columns present the bootstrap p-value and the Sup-Wald statistic of the threshold test. The fourth and fifth columns present the point estimate and the 95% confidence interval of the threshold parameter, respectively. The next two columns present the joint SSR and BIC. The last two columns present the sample size for the two regimes.

Threshold Variable	**Bootstrap p-value**	**Sup Wald**	**Threshold Estimate**	**Threshold 90% C.I.**	**Joint SSR**	**Joint BIC**	N_{Low}	N_{High}
Panel A: Preferences for Redistribution - Endogenous Threshold Variable								
Pref. for Redistribution (Country Average)	0.000	112.63	5.299	[5.189, 5.671]	393,020	2.002	19,033	34,077
General Trust	0.000	156.69	0.239	[0.228, 0.297]	372,050	1.990	27,243	23,665
GDP per Capita	0.000	144.90	9.954	[9.665, 10.537]	504,110	2.003	41,181	26,905
Gini (Net)	0.002	31.92	30.170	[28.103, 46.675]	487,190	2.008	11,376	54,089
Democracy	0.000	55.46	6	[-5.6, 9]	517,870	2.011	16,793	52,549
Importance of God	0.000	116.98	8.250	[5.089, 9.598]	392,910	2.002	25,788	27,322
Panel B: Preferences for Redistribution - Exogenous Threshold Variable								
Pref. for Redistribution (Country Average)	0.000	148.10	5.099	[4.504, 6.71]	393,262	2.003	14,741	38,369
General Trust	0.000	143.43	0.286	[0.111, 0.446]	372,140	1.990	25,587	25,321
GDP per Capita	0.000	147.72	9.398	[8.098, 10.26]	504,360	2.003	38,483	29,603
Gini (Net)	0.000	123.36	40.681	[30.062, 30.566]	486,836	2.007	41,575	23,890
Democracy	0.000	132.15	8	[-2.1, 9.9]	517,638	2.011	44,922	24,420
Importance of God	0.000	126.45	8.291	[5.267, 9.619]	392,935	2.002	25,693	27,417
Panel C: Preferences for Equality - Endogenous Threshold Variable								
Pref. for Redistribution (Country Average)	0.000	59.67	5.891	[4.79, 7.129]	384,377	1.982	26,128	26,904
General Trust	0.000	134.19	0.124	[0.083, 0.152]	362,413	1.965	14,632	36,204
GDP per Capita	0.000	132.71	9.913	[9.174, 10.347]	489,041	1.974	39,596	28,384
Gini (Net)	0.000	163.65	28.621	[28.103, 46.675]	470,395	1.974	9,847	55,519
Democracy	0.000	55.51	6	[-5.6, 9]	503,234	1.984	16,736	52,491
Importance of God	0.000	108.25	6.134	[5.648, 8.966]	384,036	1.981	16,080	36,952
Panel D: Preferences for Equality - Exogenous Threshold Variable								
Pref. for Redistribution (Country Average)	0.000	76.59	5.099	[4.504, 6.71]	384576	1.982	14705	38327
General Trust	0.000	120.56	0.112	[0.088, 0.446]	362635	1.966	10001	40835
GDP per Capita	0.000	140.57	9.885	[8.098, 10.26]	489244	1.974	44852	23128
Gini (Net)	0.000	132.57	47.219	[27.53, 49.957]	470747	1.975	52006	13360
Democracy	0.000	122.88	6.2	[-2.1, 9.9]	502529	1.983	32820	36407
Importance of God	0.000	104.52	6.660	[5.476, 9.619]	384092	1.981	17947	35085

Table 3: **Threshold Regressions**

This table presents the linear model and regime-specific coefficient estimates of the threshold regression using six alternative threshold variables. Panels A and B use Preferences for Redistribution as a dependent variable while Panel C uses Preferences for Redistribution. The threshold models in Panels A and C treat the threshold variable as endogenous while Panel B as exogenous. Panel A also includes the linear model in the first column. Heteroskedasticity consistent standard errors, clustered at the country level, are given in the parenthesis. All models include constant, age and age square, country and time fixed effects. ***, **, and * indicate the significance of the regression coefficients at 1%, 5%, and 10%. ‡‡, ‡, and † indicate the significance of the difference of the regression coefficients between the low and high regimes at 1%, 5%, and 10%.

	Linear	**Pref. for Redistribution**			**Trust**			**GDP per Capita**			**Gini (Net)**			**Democracy**			**Importance of God**		
		Low	**High**		**Low**	**High**		**Low**	**High**		**Low**	**High**		**Low**	**High**		**Low**	**High**	
Panel A: Preferences for Redistribution - Endogenous Threshold Variable																			
Female	0.077***	-0.042	0.138***	‡‡	0.001	0.169***	‡‡	0.050*	0.123***	†	0.076*	0.091***		-0.002	0.105***	‡	0.158***	0.010	‡‡
	(0.021)	(0.039)	(0.030)		(0.035)	(0.033)		(0.028)	(0.030)		(0.046)	(0.024)		(0.042)	(0.024)		(0.032)	(0.035)	
Married	0.-0.016	-0.131***	0.018	‡	0.013	-0.065*		-0.013	0.008		0.051	-0.043		0.032	-0.035		-0.081**	0.039	‡
	(0.024)	(0.046)	(0.035)		(0.041)	(0.039)		(0.034)	(0.036)		(0.053)	(0.029)		(0.052)	(0.028)		(0.037)	(0.042)	
Unemployed	0.155***	0.357***	0.070	‡‡	0.136**	0.240***		0.109**	0.310***	‡	0.163	0.144***		0.142*	0.151***		0.210***	0.112*	
	(0.041)	(0.092)	(0.055)		(0.062)	(0.083)		(0.048)	(0.076)		(0.109)	(0.045)		(0.072)	(0.049)		(0.078)	(0.059)	
Secondary	-0.196***	-0.189***	-0.160***		-0.108**	-0.247***	‡	-0.187***	-0.173***		-0.165**	-0.202***		-0.186***	-0.193***		-0.277***	-0.084*	‡‡
	(0.028)	(0.056)	(0.040)		(0.043)	(0.052)		(0.035)	(0.048)		(0.065)	(0.032)		(0.051)	(0.034)		(0.049)	(0.044)	
Tertiary	-0.192***	-0.039	-0.250***	‡‡	-0.225***	-0.156***		-0.255***	-0.090*	‡	-0.106	-0.207***		-0.222***	-0.188***		-0.194***	-0.192***	
	(0.032)	(0.062)	(0.047)		(0.054)	(0.055)		(0.043)	(0.051)		(0.070)	(0.038)		(0.064)	(0.038)		(0.053)	(0.054)	
Income	-0.130***	-0.137***	-0.125***		-0.120***	-0.143***	†	-0.125***	-0.145***	†	-0.164***	-0.127***	‡‡	-0.168***	-0.121***	‡‡	-0.137***	-0.124***	
	(0.005)	(0.010)	(0.008)		(0.009)	(0.008)		(0.008)	(0.008)		(0.012)	(0.006)		(0.012)	(0.006)		(0.008)	(0.009)	
Panel B: Preferences for Redistribution - Exogenous Threshold Variable																			
Female	-	0.077	0.076		0.059	0.098		0.057	0.108**		0.077	0.118**		0.059	0.114**		0.156***	0.012	†
	-	(0.063)	(0.054)		(0.049)	(0.079)		(0.055)	(0.041)		(0.051)	(0.042)		(0.048)	(0.042)		(0.041)	(0.074)	
Married	-	-0.132	-0.002		0.026	-0.082*	†	-0.018	0.016		-0.014	-0.039		0.008	-0.030		-0.077	0.032	†
	-	(0.077)	(0.029)		(0.035)	(0.046)		(0.034)	(0.050)		(0.040)	(0.038)		(0.034)	(0.045)		(0.045)	(0.036)	
Unemployed	-	0.286	0.110		0.115	0.273**		0.113*	0.277***		0.203***	0.081		0.094	0.334***	‡	0.210**	0.110	
	-	(0.182)	(0.066)		(0.087)	(0.100)		(0.063)	(0.095)		(0.067)	(0.079)		(0.062)	(0.072)		(0.097)	(0.079)	
Secondary	-	-0.275**	-0.132***		-0.122**	-0.210**		-0.187***	-0.187***		-0.185***	-0.205***		-0.149***	-0.288***		-0.277***	-0.085	‡
	-	(0.092)	(0.044)		(0.056)	(0.077)		(0.044)	(0.059)		(0.050)	(0.060)		(0.036)	(0.080)		(0.076)	(0.053)	
Tertiary	-	-0.169	-0.177**		-0.253***	-0.120		-0.243***	-0.118		-0.124	-0.303***	†	-0.177***	-0.225**		-0.196	-0.194**	
	-	(0.113)	(0.076)		(0.084)	(0.106)		(0.063)	(0.092)		(0.076)	(0.073)		(0.060)	(0.107)		(0.116)	(0.075)	
Income	-	-0.128***	-0.130***		-0.118***	-0.144***		-0.118***	-0.152***		-0.146***	-0.111***		-0.126***	-0.139***		-0.136***	-0.125***	
	-	(0.031)	(0.015)		(0.022)	(0.019)		(0.017)	(0.019)		(0.016)	(0.023)		(0.016)	(0.018)		(0.019)	(0.020)	

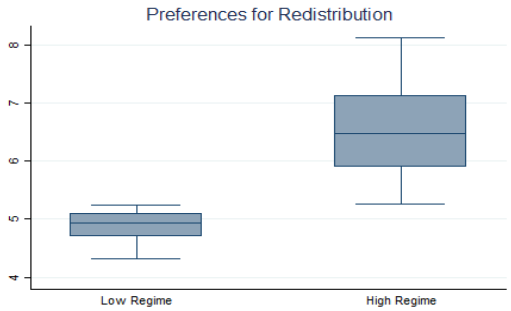
Table continued on next page ...

Table 3 continued

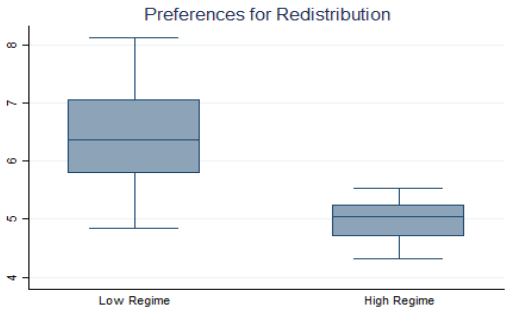
	Linear	Pref. for Redistribution			Trust			GDP per Capita			Gini (Net)			Democracy			Importance of God		
		Low	High		Low	High		Low	High		Low	High		Low	High		Low	High	
Panel C: Preferences for Equality - Endogenous Threshold Variable																			
Female	-	0.112***	0.087***		-0.042	0.171***	‡‡	0.054*	0.169***	‡‡	0.230***	0.085***	‡‡	-0.007	0.119***	‡‡	0.271***	0.026	‡‡
	-	(0.033)	(0.034)		(0.049)	(0.027)		(0.029)	(0.029)		(0.049)	(0.023)		(0.042)	(0.024)		(0.039)	(0.029)	
Married	-	-0.099**	-0.097**		-0.070	-0.099***		-0.049	-0.097***		0.020	-0.079***		0.031	-0.130***	‡‡	-0.097**	-0.081**	
	-	(0.038)	(0.040)		(0.056)	(0.032)		(0.034)	(0.034)		(0.057)	(0.028)		(0.052)	(0.027)		(0.047)	(0.034)	
Unemployed	-	-0.095	0.093	†	0.050	-0.012		0.055	0.140*		0.288**	0.058	†	0.177**	0.050		0.056	0.011	
	-	(0.077)	(0.059)		(0.078)	(0.062)		(0.048)	(0.072)		(0.122)	(0.044)		(0.072)	(0.048)		(0.100)	(0.053)	
Secondary	-	-0.247***	-0.103**	‡	-0.093	-0.207***		-0.209***	-0.142***		-0.195***	-0.170***		-0.257***	-0.160***		-0.355***	-0.132***	‡‡
	-	(0.048)	(0.045)		(0.062)	(0.039)		(0.035)	(0.046)		(0.070)	(0.031)		(0.051)	(0.033)		(0.063)	(0.038)	
Tertiary	-	-0.353***	-0.181***	‡	-0.205***	-0.264***		-0.385***	-0.187***	‡‡	-0.284***	-0.279***		-0.564***	-0.241***	‡‡	-0.395***	-0.236***	‡
	-	(0.052)	(0.053)		(0.075)	(0.043)		(0.043)	(0.049)		(0.076)	(0.036)		(0.063)	(0.037)		(0.067)	(0.045)	
Income	-	-0.136***	-0.094***	‡‡	-0.048***	-0.144***	‡‡	-0.061***	-0.164***	‡‡	-0.227***	-0.088***	‡‡	-0.063***	-0.117***	‡‡	-0.163***	-0.094***	‡‡
	-	(0.008)	(0.009)		(0.013)	(0.007)		(0.008)	(0.007)		(0.013)	(0.006)		(0.012)	(0.006)		(0.009)	(0.008)	
Panel D: Preferences for Equality - Exogenous Threshold Variable																			
Female	-	0.143*	0.084**		-0.024	0.137***		0.073*	0.159***		0.124***	0.049		0.039	0.133***		0.244***	0.025	‡‡
	-	(0.070)	(0.038)		(0.102)	(0.034)		(0.036)	(0.047)		(0.036)	(0.046)		(0.046)	(0.044)		(0.046)	(0.039)	
Married	-	-0.096**	-0.105***		-0.014	-0.120***	‡	-0.061**	-0.098***		-0.089***	-0.091		-0.054	-0.105***		-0.092**	-0.086**	
	-	(0.038)	(0.035)		(0.042)	(0.031)		(0.029)	(0.031)		(0.026)	(0.050)		(0.038)	(0.022)		(0.039)	(0.035)	
Unemployed	-	-0.059	0.046		0.044	0.002		0.054	0.164*		0.084	0.045		0.027	0.154***		0.065	0.004	
	-	(0.070)	(0.063)		(0.093)	(0.067)		(0.050)	(0.094)		(0.057)	(0.067)		(0.066)	(0.055)		(0.090)	(0.059)	
Secondary	-	-0.294	-0.122**		-0.149	-0.166**		-0.211***	-0.101		-0.145**	-0.292**		-0.239***	-0.138**		-0.264	-0.156***	
	-	(0.181)	(0.048)		(0.090)	(0.074)		(0.063)	(0.072)		(0.065)	(0.099)		(0.080)	(0.052)		(0.172)	(0.048)	
Tertiary	-	-0.387*	-0.223***		-0.351*	-0.217**		-0.380***	-0.145*	‡	-0.237***	-0.465**		-0.453***	-0.200**	‡	-0.322	-0.255***	
	-	(0.192)	(0.067)		(0.156)	(0.083)		(0.076)	(0.081)		(0.076)	(0.165)		(0.095)	(0.077)		(0.182)	(0.075)	
Income	-	-0.125***	-0.112***		-0.078**	-0.128***	†	-0.072***	-0.162***	‡‡	-0.112***	-0.095***		-0.063***	-0.143***	‡‡	-0.160***	-0.093***	‡‡
	-	(0.018)	(0.013)		(0.026)	(0.014)		(0.012)	(0.015)		(0.015)	(0.017)		(0.012)	(0.013)		(0.019)	(0.012)	

Figure 1: **Average Preferences for Redistribution for the Two Regimes**

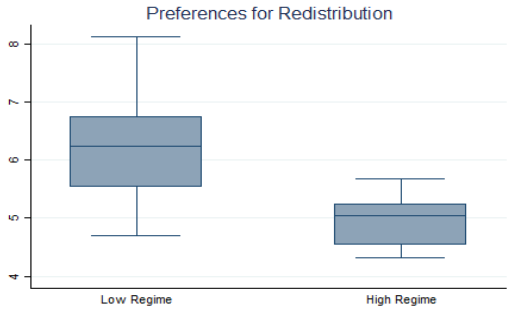
Threshold Variable:
Preference for Redistribution (Country level)



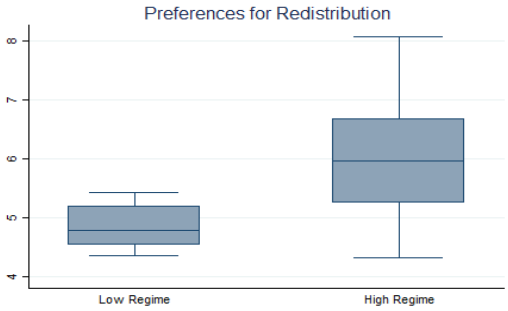
Threshold Variable:
Trust



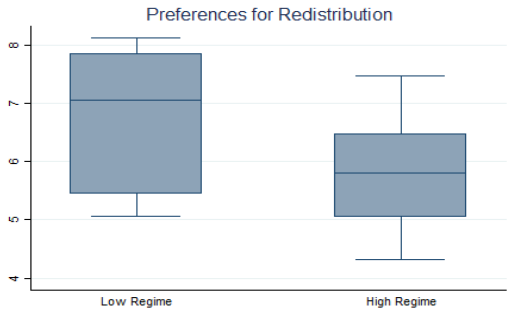
Threshold Variable:
GDP per capita



Threshold Variable:
Gini (Net)



Threshold Variable:
Democracy



Threshold Variable:
Importance of God

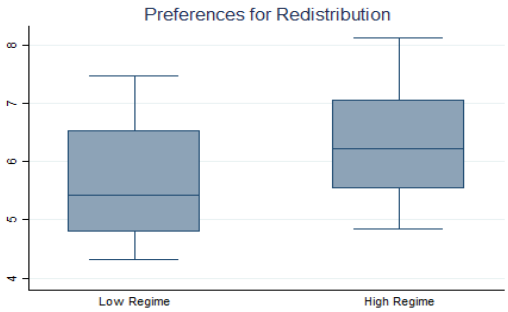
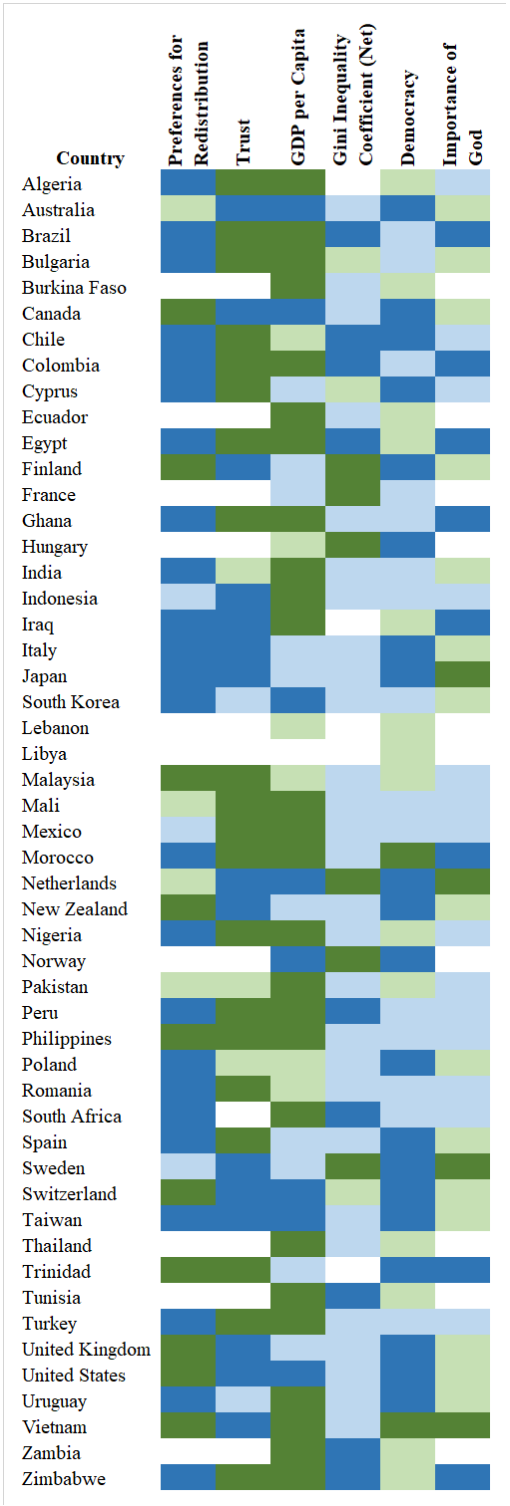


Figure 2: This is a heat map that shows whether a country belongs at the lower or the higher regime for a given threshold variable based on the threshold models that allow for the endogeneity of threshold variables. Dark green and dark blue indicate countries in the lower and in the upper regime respectively, outside of the threshold parameter's confidence interval. Light green and light blue indicate countries in the lower and in the upper regime respectively, within the threshold parameter's confidence interval.



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