Kicking Away the Ladder or Not? Unraveling Income Inequality Perceptions in the World

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ABSTRACT

Income inequality can be accepted one of the most significant problems of the 21st century. This research aims to explore the factors influencing support for income equality at both the individual and macro levels worldwide. By analyzing the latest data from the World Values Survey, which includes responses from 50,615 individuals across 42 countries, and incorporating key macroeconomic variables obtaining World Bank, this study identifies several crucial determinants of attitudes towards addressing income inequality using logistic regression analysis. The research findings reveal that factors such as material well-being, life satisfaction, institutional trust, job status, place of residence, level of education, and religiosity play a significant role in shaping individual perceptions of income inequality, particularly in the context of support for either redistributive policy or free-market capitalism as potential solutions to mitigate income disparities. Additionally, macro-level variables reveal a substantial influence on support for income equality. Income per capita, income share of top 10, the unemployment rate, and women's representation in parliament as a proxy for gender equality are found to significantly increase the likelihood of endorsing efforts to reduce income inequality. Our results remain robust when controlling for alternative income-related variables.

Keywords: Income Inequality, Public Perceptions, Redistributive Policy, Well-being, Institutional Trust.

JEL Classification Codes: D31, D63, I30, O10, C30

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INTRODUCTION

Growth has been at the center of all economic and social issues since the debate on modern growth theories appeared after World War II, align with the intensification of industrialization competition and the restructuring of the post-war world. Industrialization oriented growth policies, led by Bretton Woods and the IMF, were universally recommended to the entire world (Rodrik, 2011; Chang, 2015). During this period, developed capitalist countries prioritized growth and propagated this idea worldwide through the conditions attached to aid and the policy tools recommended by international institutions and academics. From 1945 to the late 1960s, the primary focus was solely on quantitative output growth, with many other variables such as income distribution, equality, justice, social inclusivity, and environmental preservation being neglected. Even though growth-oriented policies started to be questioned due to the damage caused by the 1973 crisis and the with the advent of neoliberal policies after 1980, increasing inequalities emerged as one of the most significant outcomes of this process. Joseph Stiglitz, one

of the main architects of these policies, described this period as marked by discontents of the globalization -or we can say growth with finance capital- due to the inequalities it generated and deepened (Stiglitz, 2017; Chang, 2015). While the world economy tries to escape from an economic crisis, it has to face with the more widened one. This led to the emergence of discussions on poverty, inequality, and environmental degradation within the sustainable development paradigm of the 1990s. First, the Millennium Development Goals, consisting of 8 objectives, and later the Sustainable Development Goals, comprising 17 comprehensive goals, were proposed to combat multi-dimensional inequality and damages by United Nations Development Programme (UNDP). However, it is challenging to assert today that the first two issues of the 17 development indicators, reducing income inequality and ending poverty, have been resolved.

Despite all programs suggested and implemented by international organizations and the efforts the local organizations, ensuring equality in the 21st century remains as a distant goal. The inequality agenda has

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regained its popularity after the seminal work of Piketty (Capital in the Twenty-First Century) to reassess historical trends of global income and wealth inequalities with novel datasets of World Inequality Lab (Milanovic, 2012; Jones, 2015). According to the findings of recent World Inequality Report (2022), income inequality within countries is currently dramatically high, and even though the developing world has made some progress in catching up economically over the past four decades, inequality between countries and within countries still is notably high. As the global population continues to grow, total income also increases, albeit with occasional fluctuations in growth rates. However, this positive economic outlook does not translate into a similar reduction in inequalities (Chancel et al., 2022).

The data provided by the World Inequality Lab highlights a persistent trend over the past half-century; the income disparity between the top 1% of the global population and the bottom 50% has shown no signs of narrowing, as illustrated in Figure 1. Furthermore, as demonstrated in Map 1, the most recent data pertaining to the top 10 income shares for the year 2021 underscores significant regional variations in income inequality. The lighter areas on the map represent regions where the share of income received by the top 10% is lower. Yet it is obvious that both developing, developed, and less developed countries are suffering from unequal income distribution. That is why in the social science literature, there is a vast theoretical and empirical literature on income equality at the macro level.
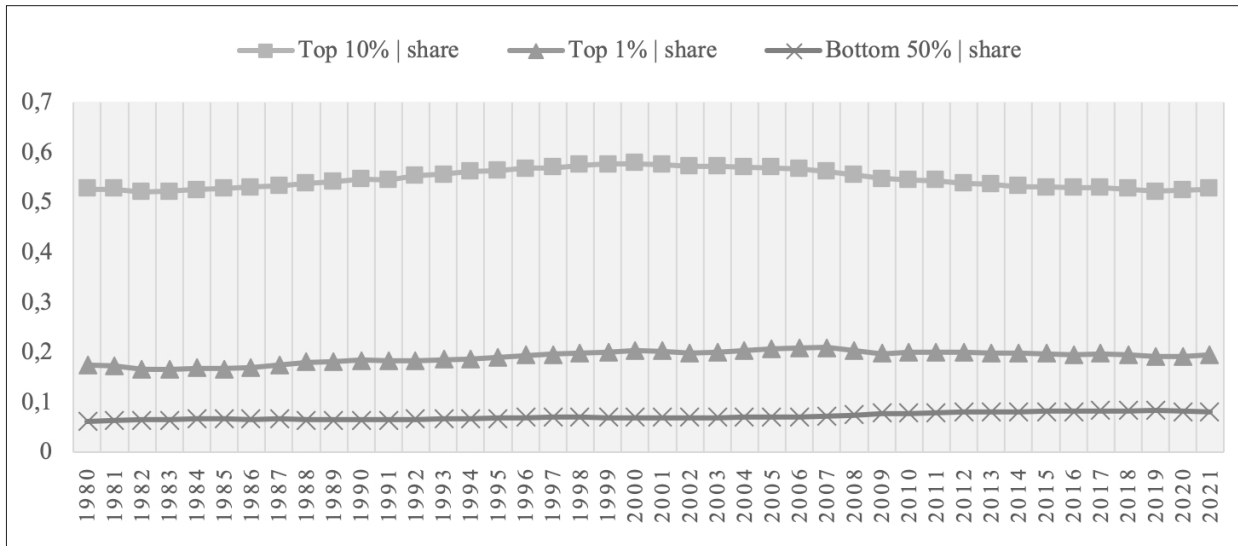
Figure 1. Pre-tax national income share (1980-2021)
Source: Facundo Alvaredo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez. 2022. World Inequality Database. WID.world. http://wid.world/data
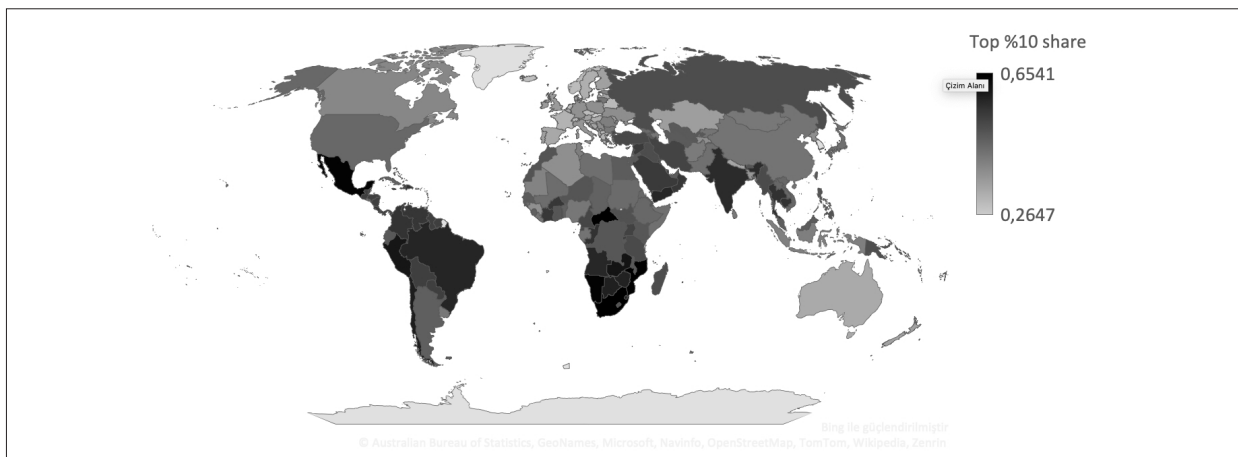
Map 1. Income Inequality in the World (Top %10 share, 2021)
Source: Compiled by the author using Facundo Alvaredo, Anthony B. Atkinson, Thomas Piketty and Emmanuel Saez. 2022. World Inequality Database. WID.world. http://wid.world/data

On the other hand, there is limited literature on individuals' perceptions of income inequalities. Therefore, in this study, the question "Who wants income equality, and who wants to let the market distribute income?" is posed to address this gap. In other words, we are asking who wants more support for redistributive policy, and who wants greater incentives for individual effort? This research aims to analyze the primary individual-level factors that drive people's support for income equality in the world, incorporating the main macro-economic variables of countries. By revealing these factors, the study seeks to provide valuable insights that can guide policy decisions and promote a more cohesive society, enhancing our understanding of the determinants of individuals' perceptions of income equality. In this study, we aim to answer the main question by adopting Chang's (2002 [2005]) "kicking away the ladder" concept. Basically, Chang (2015) argues that the standard set of neo-liberal policy recommendations implied after the Washington consensus, especially for developing countries (like Latin American ones), is mainly based on liberalization, deregulation, and privatization (Williamson, 2004). Chang (2015) criticizes these neo-liberal policies and highlights that the developed countries of today did not follow these specific policies themselves when they were developing but instead used a different set of policies. The "kick the ladder away" metaphor refers to how developed countries have prevented developing countries from using the same policies that they themselves used to become rich; in short, after they climb the ladder, they kick the ladder away. Can the kicking away the ladder metaphor also be applied to perceptions of income inequality? If rich people oppose policies that aim to reduce income inequality, they are essentially "kicking away the ladder" that enabled them to become rich in the first place. This is because policies that reduce income inequality, such as progressive taxation and social welfare programs, support the creation of a fair and equal opportunity environment, including for those who are less well-off, which may not be favored by individuals with higher incomes. On the other hand, if people are in favor of social cohesion and social democracy, they do not "kick the ladder" and can become supportive of redistributive policies. In summary, this study aims to determine who desires more equal income and who advocates for market-driven income distribution, or, in other words, who kicks the ladder away and who does not? In this study, individual-level income-based variables and macro-level indicators are found to be moving in different directions. Individuals with higher material well-being, life satisfaction, and income tend to be less inclined to support redistributive

policies, while increasing inequality at the country level increases support for redistributive policies.

In this framework, first a brief literature review is presented. Subsequently, details of data and methodology are introduced. Following this, the empirical findings are highlighted, and finally, our concluding remarks are discussed.

A BRIEF LITERATURE

Income and wealth inequalities are major subjects within the field of social sciences.[1] There is a vast body of literature dedicated to understanding the dynamics of income distribution. On a global scale, the theoretical foundations of this research can be traced back to Adam Smith's 18th-century question, "Why are some nations poor and why others are not?" (Smith, 1776 [2018]). 236 years later, Acemoglu and Robinson's (2012) seminal work "Why Nations Fail: The Origins of Power, Prosperity, and Poverty" increased interest in this topic and prompted a reevaluation of income inequalities and their relationship to the institutional structure of the countries. After that, Piketty (2013), has put forward a series of policy recommendations aimed at addressing global income and wealth inequality by using novel dataset. His proposals include the need for market intervention to redistribute the income and capital. He also advocates for the use of effective tax policies to combat rising inequality, specifically through higher taxes on wealth, including a wealth tax (Piketty, 2013 [2014], Pressman, 2016). And today, both theoretical and empirical literature on income inequality and its consequences is increasing day by day. While there is a considerable body of research on inequalities, studies focusing on public perceptions of income inequality are notably scarce, and the existing studies primarily encompass country-specific analyses, because measuring public perceptions of inequality is quite challenging (Trump, 2023).

In the literature, there are cross-country analysis mainly based on median voter model. According to this model, individuals who move out of poverty begin to demand less redistribution, as they care less about receiving social benefits and more about the taxes, they have to pay to finance social assistance programmes (Meltzer and Richard, 1983; Corneo and Gruner, 2002). This idea challenges the notion that reducing income disparities lead to social stability and a greater likelihood of transitioning to democracy, as stated by several works like Easterly (2001) and Acemoglu and Robinson (2006). Additionally, protests and social movements

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[1] In this research, we focus on income inequality and do not delve into perceptions of other forms of inequality.

in developing countries show that as new groups of individuals climb the income ladder, it often results in high conflicts over wealth or income distribution, contradicting the expectation of reduced conflict (Wietzke and Sumner, 2014). In this framework, Wietzke (2016) finds out that this supports the intuition that falling poverty rates in today's fast-growing emerging economies are associated with more, not less, conflict over distributional outcomes. This finding is contrary to the expectations in the median voter model. The author finds that, on average, support for redistribution grew faster in societies that experienced higher rates of poverty reduction under internationally accepted extreme poverty thresholds. Kenworthy and McCall (2008), based on the median voter model, use data from the International Social Survey Programme (ISSP) to define the association between public opinion regarding income inequality and the support for redistribution policies in 8 countries for 1980-1990 period. They find that public opinion on income inequality varies significantly among countries, and that support for redistribution policies is more prominent in nations where public opinion on income inequality is more egalitarian. Even though the median voter hypothesis states increasing inequality in the distribution of earnings or income leads to higher levels of generosity in redistributive policies, the author reveals that this hypothesis may not be very useful. Colagrossi et al. (2019), using Eurobarometer data for EU-28 countries, applied binary logistic regression, finding that support for redistribution is positively linked with the level of income inequality. In addition to these, Milanovic (2000) and Finseraas (2009) find a positive relationship between inequality and demand for redistributive policy; others, for example, Moene and Wallerstein (2003) and Rodrigiuez (1999), find a negative relationship.

One of the country-specific examples, Wong et al. (2009), focusing on Hong Kong, find that in a capitalist society emphasizing competitive individuality, income polarization is often reluctantly accepted. Their study revealed that subjective perceptions of income inequality, measured by the seriousness and justness of income disparities, fluctuated more than actual inequality. According to the findings of this research, interestingly, even though the Gini coefficient increased, perceptions of unfairness in income distribution decreased in the 1990s. The literature on perceptions of income inequality in the USA is relatively rich. Xu and Garand (2010) using state-level income inequality and 2004 American National Election Study (ANES) data and applying ordered logit models depicting individuals'

perceptions of rising income inequality as a function of state income inequality and various control variables. Author's find that people in states with big income gaps tend to see greater national income inequality over the last 20 years. The study also looked at how factors like political knowledge and family income play a role. It turns out, family income is the main factor. People with lower incomes are more likely to connect state income gaps with their perception of overall inequality compared to those with higher incomes. Addition to this, Bartels (2008) and McCall and Kenworthy (2009) find that increasing income inequality in the USA is affected by individuals' political ideology, access to information and interest about politics, education level, and media exposure (Bartels, 2008; McCall, 2005; McCall and Kenworthy, 2008). One of the most recent studies for the USA is Franko's (2017). Based on theories of macro-political behavior and place-based contextual effects, author tries to examine how public perceptions of inequality developed in the USA after 1980. The author finds, through the application of time-series cross-sectional analyses, that the public's perceptions of growing inequality are largely influenced by objective state economic indicators and state political ideology.

As we can see, the findings about determinants of public perceptions on income equality are quite mix. In terms of the empirical literature, we aim to reexamine the conventional view by proposing "Hypothesis 1: Higher levels of material well-being and life satisfaction are positively associated with support for income equality worldwide." This expectation aligns with the findings of Easterly (2001) and Acemoglu and Robinson (2006), who suggest that individuals who attain a certain level of income or life satisfaction may be more inclined to endorse income equality, driven by their pursuit of fairness, social cohesion, and harmony, or their perception of reduced threats from income equality policies. In this study, if we confirm this conventional view, we will conclude that the "kicking away the ladder" concept cannot be applied to income equality perceptions worldwide. "*Hypothesis 2:* Greater levels of institutional trust are positively correlated with supporting income equality worldwide". This expected positive correlation can be explained by the belief in the effectiveness of income redistribution mechanisms and the belief in collaborative efforts that lead to mutual benefits on a global scale. "*Hypothesis 3:* Socio-economic and demographic factors have the potential to exert an influence on decisions supporting income equality worldwide."

In this respect, this research aims to fill the gap in understanding global perceptions of income equality, considering well-being, institutional trust, and controlling for macroeconomic variables, socio-economic factors, and demographic characteristics.

DATA AND METHODOLOGY

In this study, data from Wave 7 of the World Values Survey (version 5.0) and World Bank Development Indicators, encompassing data from 64 countries are used. After excluding individuals with missing values, final dataset consisted of 50,615 individuals drawn from 42 countries. These countries are Argentina (ARG), Armenia (ARM), Australia (AUL), Bangladesh (BNG), Bolivia (BOL), Brazil (BRA), Canada (CAN), Chile (CHL), Colombia (COL), Cyprus (CYP), Czech Republic (CZR), Ecuador (ECU), Ethiopia (ETH), Germany (GMY), Greece (GRC), Guatemala (GUA), Indonesia (INS), Japan (JPN), Kenya (KEN), Madagascar (MAD), Malaysia (MAL), Mexico (MEX), Mongolia (MNG), Morocco (MOR), Nicaragua (NIC), Nigeria (NIG), Netherlands (NTH), Peru (PER), Philippines (PHI), South Korea (ROK), Romania (ROM), Russia (RUS), Slovenia (SLO), Serbia (SRB), Tajikistan (TAJ), Thailand (THI), Tunisia (TUN), Turkey (TUR), Ukraine (UKR), Uruguay (URU), the United States of America (USA), and Zimbabwe (ZIM). Appendix 1 provides an overview of these countries and their respective sample characteristics.

Our dependent variable is a latent variable, which was retrieved from Question 106 in WWS. This is a scale ranging from 1 (Income should be made more equal) to 10 (There should be greater incentives for individual effort). We create a binary variable: if an individual's response falls within the range of >=5, they are more likely to support free-market solutions in income distribution, and if the response is below 5, the individual is more likely to support redistributive policies. A variable called   was created that takes the value of 1, when the individual support redistributive policy, and 0 if individual support free market solution for income redistribution which means the   variable used in the study has a binary structure. In this case, it is proper to use a logistic model to estimate the probabilities of the dependent variable being either 0 or 1 (Gujarati, 1995). In this case, it is proper to use a logistic model to estimate the probabilities of the dependent variable being either 0 or 1 (Gujarati, 1995). Logit models are statistical methods that provide the probability distribution of values for the dependent variable and allow for classification based on these values. The general functional structure of the model is as follows (Green, 2000; Gelman, 2008).

$$P_i = E\left(Y_i = 1 / X_i\right) = \frac{1}{1 + e^{-(\text{ß}_1 + \text{ß}_2 X_i)}} \tag{1}$$

When $\text{ß}_1 + \text{ß}_2 X_i = Y$ and $Y \in Z$; "P_i"; "Pi" takes the values between 0 and 1. This implies that there is no linear relationship between P and Y. Therefore, the estimator cannot be predicted using the least squares method in this model. When individuals' likelihood of supporting income equality is represented as "P_i," and the likelihood of supporting free market in income distribution is represented as "1 - P_i," the model can be rearranged as in equation number 2.

$$P_i = \ln\left(\frac{P_i}{1 - P_i}\right) = \text{ß}_1 + \text{ß}_2 X_i \tag{2}$$

When estimating the likelihood of prioritizing equality compared to free market distributive mechanisms through the logarithm of the odds ratio, the linearity problem is eliminated. So, it is possible to estimate the impact of a change in the independent variable "X_i" on the likelihood of supporting income equality. In this estimation method, coefficients do not provide an interpretation of the numerical value of the effect on the dependent variable; rather, they allow for an analysis of the direction of the effect based on its sign.

Table 1 provides an overview of the independent variables employed in the analysis. Primary independent variables of this study are that: *life satisfaction*, *material well-being*, and *institutional trust*. In addition to these, several control demographics, such as *income* (to make robustness checks for income-related indicators in Models 1–5), *religiosity*, *sex*, *age groups*, *number of children*, *education level*, *employment status* and *place of residence* are used. These control variables are crucial for capturing the nuanced influences on our dependent variables and help ensure the robustness of our analysis by accounting for potential confounding factors (Aigner and Heins, 1967; Bernerth et al., 2018). Furthermore, macro-level variables are also included: gross domestic product per capita, unemployment rate, income received by the top 10, and proportion of seats held by women in national parliaments as a proxy for gender equality.

In appendix section several descriptive tables are presented as following: Appendix 2 presents frequency distribution of variables, Appendix 3 displays descriptive statistics for macro-level variables, and Appendix 4 displays a matrix of correlations.

We employ a forward stepwise approach for logistic regression to identify the final model. This model selection process involves conducting the Wald test for individual parameters, with a significance level set at 0.1. All parameters that satisfy this requirement are kept in

Table 1. Variables and Definitions

Individual-Level Variables		
Question	**Variable Name**	**Scale**
Q106. Incomes should be made more equal. There should be greater incentives for individual effort.	Dependent variable	Binary (0-1) 0 free market capitalism 1 support for redistributive policy
Independent Variables		
Q49. How satisfied are you with your life these days?	Life Satisfaction	Binary (0-1) low-high
In the last 12 months, how often have your or your family, Q51 Gone without enough food to eat. Q52 Felt unsafe from crime in your home. Q53 Gone without medicine or medical treatment that you needed. Q54 Gone without a cash income. Q55 Gone without a safe shelter over your head.	Material well-being	Binary (0-1) low- high
Q64-Q89 Trust level of Churches, armed forces, the press, television, labor unions, police, courts, government, political parties, parliament, civil service, universities, elections, major companies, banks, environmental organizations, women's organizations, charitable or humanitarian organizations, the European Union, the United Nations, the International Monetary Fund, the International Criminal Court, the North Atlantic Treaty Organization, the World Bank, the World Health Organization, the World Trade Organization	Institutional Trust	1 low 2 medium 3 high 4 very high
Q.288. Income group	Income	1 low 2 middle 3 upper middle 4 high income
Q173. Are you religious or not?	Religiosity	Binary (0-1) A religious person- Not a religious person
Q260. Respondent's sex	Sex	Binary (0-1) Male-female
Q261. How old are you?	Age groups	<=30, 31-45, 45-60, 60 =>
Q274. Do you have any children?	Number of children	Number
Q275. What is the highest educational level that you have attained?	Education level	(1-3) primary-high school-university
Q279. Are you employed now or not? How many hours a week?	Employment status	1 "other" 2 "unemployed" 3 "student" 4 "housewife" 5 "retired" 6 "employees"
H1. Place of residence type	Place of residence	Binary (0-1) urban-rural
Macro-level Variables		
Variable	**Definition**	
gdppc	Logarithm of gross domestic product per capita, PPP (constant 2017 international $)	
top10share	Logarithm of income share of top 10	
unemployment	Logarithm of unemployment rate (%of labor force)	
womenrep	Logarithm of Proportion of seats held by women in national parliaments	

Source: Compiled by the author. We use macroeconomic variables for the year 2019 and 2020 average.

the final model. To add probability weights based on the initial equilibrated weights from the World Values Survey dataset, analysis is carried out using Stata 15 with the "svy" prefix. A tool created by Archer and Stanley (2006) with the "svylogitgof" command is used to assess the goodness of fit. Any observations with missing values related to the survey design variables are excluded from the analysis.

EMPIRICAL FINDINGS

The results of our regression analyses examining the factors influencing public perceptions of income equality can be categorized into three distinct sections: main independent variables, socio-economic and demographic factors, and macroeconomic indicators. The regression coefficients for all alternative models are

Table 2. Regression Coefficients of Logistic Regression

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual level variables						
Material well-being (ref: low)						
high	-.204***				-.122***	-.088***
	(.032)				(.032)	(.032)
Life satisfaction (ref: low)						
high		-.459***			-.454***	-.399***
		(.025)			(.025)	(.025)
Institutional Trust (ref: low)						
moderate			.081***		.116***	.131***
			(.027)		(.027)	(.027)
high			.078**		.127***	.157***
			(.036)		(.036)	(.037)
very high			-.322*		-.276	-.254
			(.175)		(.176)	(.175)
Income (ref: low)						
Middle				-.264***		-.228***
				(.023)		(.024)
High				-.548***		-.488***
				(.028)		(.028)
Age groups (ref: <30)						
31-45	.033	.025	.044	.001	.028	-.002
	(.034)	(.034)	(.034)	(.034)	(.034)	(.034)
45-60	-.04	-.059	-.033	-.079**	-.055	-.087**
	(.037)	(.037)	(.037)	(.037)	(.037)	(.037)
>60	.062	.046	.066	.002	.052	.003
	(.053)	(.053)	(.053)	(.054)	(.053)	(.054)
Employment status (ref: student)						
Other	-.026	-.024	-.029	-.016	-.023	-.013
	(.033)	(.033)	(.033)	(.033)	(.033)	(.033)
Unemployed	.098**	.102**	.104**	.089**	.1**	.088*
	(.045)	(.045)	(.045)	(.045)	(.045)	(.045)
Housewife	.07	.063	.066	.057	.062	.052
	(.048)	(.048)	(.048)	(.048)	(.048)	(.048)
Retirees	.122***	.118***	.12***	.109***	.118***	.108***
	(.041)	(.041)	(.041)	(.041)	(.041)	(.041)
Employee	.138***	.119***	.144***	.106***	.116***	.086**
	(.038)	(.038)	(.038)	(.038)	(.038)	(.038)
Place of residence (Ref: urban)						
Rural	.105***	.103***	.104***	.076***	.106***	.081***
	(.023)	(.024)	(.023)	(.024)	(.024)	(.024)
Sex						
Female	.063***	.063***	.063***	.059***	.063***	.059***
	(.021)	(.022)	(.021)	(.022)	(.022)	(.022)

Table 2. Regression Coefficients of Logistic Regression (Continued)

Education level (ref: primary school)

High school	-.2***	-.194***	-.209***	-.162***	-.189***	-.151***
	(.027)	(.027)	(.027)	(.027)	(.027)	(.027)
University	-.356***	-.335***	-.371***	-.275***	-.329***	-.252***
	(.031)	(.031)	(.031)	(.031)	(.031)	(.031)
Graduate	-.351***	-.324***	-.366***	-.199***	-.326***	-.189***
	(.045)	(.045)	(.045)	(.046)	(.045)	(.046)
Religiosity (ref: religious)						
Not religious	.007	-.004	.012	.005	.003	.005
	(.025)	(.025)	(.025)	(.025)	(.025)	(.025)
Atheist	.252***	.23***	.257***	.252***	.237***	.241***
	(.044)	(.044)	(.044)	(.044)	(.044)	(.044)
Number of children	-.01	-.007	-.009	-.009	-.008	-.008
	(.007)	(.007)	(.007)	(.007)	(.007)	(.007)
Macro-level variables						
gdppc	1.094***	1.153***	1.11***	1.103***	1.151***	1.15***
	(.082)	(.082)	(.082)	(.082)	(.082)	(.083)
top10share	8.563***	7.843***	8.794***	8.403***	8.088***	8.085***
	(1.079)	(1.085)	(1.089)	(1.091)	(1.092)	(1.1)
unemployment	.391**	.314*	.417**	.461***	.395**	.496***
	(.163)	(.165)	(.165)	(.166)	(.167)	(.169)
womenrep	2.834***	2.518***	2.847***	2.972***	2.642***	2.857***
	(.283)	(.286)	(.286)	(.285)	(.289)	(.29)
Constant term	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	50,615	50,615	50,579	50,615	50,615	50,615
Goodness of Fit (Prob > F)	0.374	0.072	0.734	0.277	0.198	0.007

Note: Standard errors are in parentheses. *** p<.01, ** p<.05, * p<.1. Original equilibrated weights from the World Values Survey were used. To calculate standard errors, we use the linearized method.
Source: Authors' calculation.

presented in Table 2, and Table 3 displays the marginal effects specific to Model 5, which is our final model. To provide a robust analysis, six models are estimated. The first three models present the analysis separately for material well-being, life satisfaction, and institutional trust. Model 4 serves as a robustness check, as it employs only the income scale, allowing us to compare it with the first two models that incorporate income-related well-being variables. It is worth noting that the consistently negative and significant coefficients associated with these variables further confirm the robustness of our findings. In model 6, we use material wellbeing, life satisfaction, institutional trust, and income together; this can also be a robustness check to validate that all the signs of the main independent variables are not changing. Model 5 is the final model for two reasons: first, we do not need income-supported two variables (material wellbeing and income directly, life satisfaction indirectly). Second, when we look at the goodness of fit results Model 6 shows no goodness of fit, it suggests that

adding those additional variables did not significantly improve the model's ability to explain the variation in our dependent variable compared to Model 5.

Main Independent Variables

Our study revealed that individuals with high material well-being, income, and life satisfaction are less likely to support income equality in line with the findings of Colagrossi et al. (2019). This finding is contrary with the mainstream expectations, and findings suggests that individuals with high material well-being and life satisfaction may be less inclined to endorse pro-poor redistributive policies, potentially due to their belief in the importance of hard work and personal effort. This phenomenon can be seen as a manifestation of the "kick the ladder away" concept (Chang, 2015), where those who have achieved a certain level of income success are less supportive of income equality measures. It appears that their stance is driven more by meritocratic

Table 3. Marginal Effects for Final Model (Model 5)

	dy/dx	Std.Err.	t	P>t	[95%Conf.	Interval]
Material wellbeing	-0.027	0.007	-3.770	0.000	-0.041	-0.013
Life Satisfaction	-0.102	0.006	-18.120	0.000	-0.113	-0.091
Institutional trust						
moderate	0.025	0.006	4.300	0.000	0.014	0.037
high	0.028	0.008	3.490	0.000	0.012	0.044
very high	-0.058	0.036	-1.620	0.104	-0.128	0.012
Age groups						
31-44	0.006	0.008	0.820	0.412	-0.009	0.021
45-59	-0.012	0.008	-1.460	0.143	-0.028	0.004
>60	0.012	0.012	0.970	0.330	-0.012	0.035
Employment status						
Other	-0.005	0.007	-0.710	0.480	-0.019	0.009
Unemployed	0.022	0.010	2.200	0.028	0.002	0.042
Housewife	0.014	0.011	1.290	0.198	-0.007	0.034
Retirees	0.026	0.009	2.870	0.004	0.008	0.044
Employee	0.026	0.008	3.030	0.002	0.009	0.042
Place of residence						
rural	0.023	0.005	4.490	0.000	0.013	0.034
Sex						
female	0.014	0.005	2.920	0.003	0.005	0.023
Education level						
high school	-0.042	0.006	-7.050	0.000	-0.054	-0.031
university	-0.073	0.007	-10.690	0.000	-0.086	-0.059
graduate	-0.072	0.010	-7.350	0.000	-0.091	-0.053
Religiosity						
not religious	0.001	0.005	0.130	0.900	-0.010	0.011
atheist	0.053	0.010	5.350	0.000	0.033	0.072
Numberofchilden	-0.002	0.002	-1.120	0.262	-0.005	0.001
gdppc	0.254	0.018	14.070	0.000	0.219	0.289
top10share	1.784	0.240	7.420	0.000	1.313	2.255
unemployment	0.087	0.037	2.370	0.018	0.015	0.159
womenrep	0.583	0.064	9.160	0.000	0.458	0.707

Note: dy/dx for factor levels is the discrete change from the base level.
Source: Authors' calculation.

principles than altruistic tendencies. This phenomenon can be primarily attributed to the unique circumstances of households that have recently escaped extreme deprivation or are just above the poverty line. These households, who were previously very poor, tend to advocate for more redistribution policies to reduce their vulnerability to economic shocks and to eliminate the risk of falling back into extreme poverty. It can be concluded that the idea that after reaching a certain level of income or life satisfaction, individuals may be more inclined to support income equality as they seek fairness, social cohesion, and harmony or perceive reduced threats from income equality policies is not valid for a capitalist world economy. Through this analysis, it can be indirectly highlighted that reciprocity, altruism, and empathic responsiveness cannot be seen in people who have higher living conditions.

Furthermore, we found that individuals with high institutional trust are more likely to support income equality, aligning with existing research showing a positive association between trust in public institutions

and support for income equality. In countries where institutional trust is low, there is often concern about the public approval and legitimacy of the political system (Gould and Hijzen; 2017; Medve-Balint and Boda, 2014; Gould and Hijzen, 2017). This finding is not in line with the Dutta and Sobel (2023) study, which indicates fewer trusting individuals (and societies) generally desire higher degrees of income inequality because of individualism instead of searching for collective action. Regarding these contradicting findings, different dimensions of trust as an important component of social capital should be further investigated.

When we compare the magnitude of the effects of main independent variables considering Table 5, the negative effects of high life satisfaction have the biggest effects on supporting income equality. The positive effect of increasing rate of institutional trust is high when we compared the negative effects of material well-being and life satisfaction.

Control Demographics

Age groups, employment status, place of residence, sex, education level, religiosity, and the number of children were used as control demographics in the study. According to results, there are no statistically significant differences between age groups compared to individuals under the age of 30. Regarding number of children, it could be expected as the number of children increases, concerns for economic security should also increase. However, the results do not indicate any statistically significant relationship between the number of children and income equality concerns. Unemployed individuals, retirees, and employees are more inclined to support income equality over greater incentives for individual effort when compared to the reference group, which is "students." When examining the rural-urban dichotomy, UN reports suggest that living in rural areas makes individuals more vulnerable because they heavily rely on agricultural production, which is not stable for generating income (UN World Social Report, 2021). That is why it makes sense to expect that rural residents would be more likely to support income equality, as those who are most affected by income inequality should advocate for equal income distribution. Our results support this view, showing that rural residents are more likely to support income equality. Historically, women have been the most affected group by inequalities, especially concerning income equality (Perrin, 2022; Katz et al., 2005; Ruel & Hauser, 2013). We also found that females are more likely to support income equality rather than greater incentives for individual effort. Accessing equal educational standard for women and man can create opportunities to reduce income inequalities by empowering people. Studies indicate that educational factors, such as higher educational attainment and a more equal distribution of education, play a significant role in making income distribution more equal (Hovhannisyan et al., 2019). However, what about the perceptions of educated individuals towards income equality? As education levels increase, there is a growing likelihood of supporting greater incentives for individual effort in income distribution. This is because education can have a positive impact on economic growth and productivity, leading to higher wages and increased opportunities for individuals. Furthermore, as highlighted by Dabla-Norris et al. (2015), individuals who endorse income inequality often hold the belief that disparities in income stem from differences in individual effort and talent. This perspective aligns with the concept of "individualism" prevailing over "collectivism." Standardized education tends to produce individuals suitable for participation in the free-market system, emphasizing STEM (Science, Technology, Engineering, Mathematics) fields, while collectivism is frequently marginalized. Regarding magnitude of the individual variables, difference in religiosity level seems the one of the most important factors increase the likelihood of supporting income equality over free market distributive policies. People who consider themselves atheists are more likely to support income equality compared with the religious people.

Macroeconomic Variables

The living environment shapes people's perceptions, which is why we aimed to control the relationship between macroeconomic variables and perceptions. In the analysis,
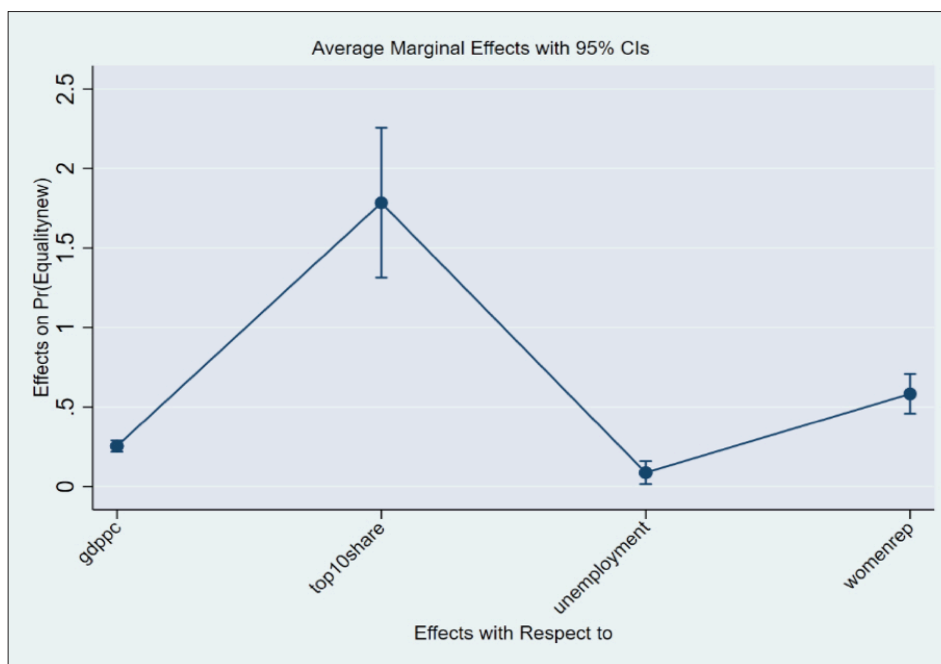
Figure 2. Average Marginal Effects of Macroeconomic Variables
Source: Authors' calculation.

GDP per capita, the unemployment rate, the top 10 income shares, and the representation of women in parliaments to account for country-level inequalities as a proxy of gender equality in the country with a presumption that gender equality can influence people to be more inclined toward equal income distribution are added to the models.

As expected, when income per capita improves, unemployment decreases, and country-level inequality increases, people tend to be more supportive ensuring income equality by support for redistributive policy instead of free market solutions in line with the findings of Meltzer and Richard (1983), Milanovic (2000), and Finseraas (2009) in which state inequality and demand for redistribution should be positively linked. However, it's crucial to note that individual-level variables do not consistently align with macro-level variables. In summary, when a country experiences overall positive economic conditions, its residents are more likely to endorse policies that promote income equality. When we scrutinize the marginal effects, the positive impact of country-level income inequalities becomes even more pronounced (as depicted in Table 3 and Figure 2), prompting individuals to lean towards the belief that "income should be made more equal" rather than "there should be greater incentives for individual effort." On the other hand, individual well-being and life satisfaction exhibit adverse effects, indicating that individual well-being does not contribute significantly to promoting policy to ensure equal income for everyone. Conversely, the likelihood of preferring income distribution to be left to market mechanisms increases.

CONCLUSION

In the 21st century, income inequality has emerged as a pivotal issue due to its pervasive impact across various aspects of society. Addressing this challenge is essential for developing strategies that foster inclusive and sustainable economic growth while ensuring the well-being of individuals and communities. This study aims to explore both individual and macro-level determinants of public perceptions of income equality, using individual-level data from the World Values Survey (WVS) and macro data from the World Bank. We employ binary logistic regression analysis to achieve two primary aims: Firstly, we contribute to the existing literature by examining public perceptions of income equality using the latest available data. Secondly, we extend the analysis by exploring the influence of well-being indicators and institutional trust within this framework, while controlling for macro-level factors. Overall findings of this research indicate that planning of policies based on social preferences,

inequality, general macro-economic condition of the countries and socio-demographic factors matter.

The research findings reveal that factors such as material well-being, life satisfaction, institutional trust, job status, place of residence, level of education, and religiosity play a significant role in shaping individual perceptions of income inequality, particularly in the context of support for either redistributive policy or free-market capitalism as potential solutions to mitigate income disparities. Additionally, macro-level variables reveal a substantial influence on support for income equality. Income per capita, income share of the top 10, the unemployment rate, and women's representation in parliament as a proxy for gender equality are found to significantly increase the likelihood of endorsing efforts to reduce income inequality. This finding, contradicting Kenworthy and McCall (2008) and Wietzke (2016), is in line with the median voter-voter hypothesis, which suggests that higher inequality in a country tends to increase the generosity of redistributive policy. It should be highlighted that individual-level determinants and macro-level determinants say different things based on the median voter theory. At the individual level, if material well-being, life satisfaction, and income level increase, individuals are less likely to support a redistributive policy. On the contrary, considering the overall economic conditions of the countries, they tell a different story.

When we revised the hypothesis, the results did not confirm "Hypothesis 1: "Higher levels of material well-being and life satisfaction were expected to have a positive association with support for income equality", as we found evidence to the contrary. This finding could be attributed to factors such as individuals' perceptions of fairness, reduced concerns about potential threats from income equality policies, or a desire for social cohesion and harmony in an individualist capitalist world economy. It can be concluded that people kicking away the ladder if they meet materialistic needs and have greater life satisfaction. For Hypothesis 2, we anticipated a positive correlation between greater levels of institutional trust and support for income equality in the world. Our findings confirm this hypothesis for the people's trust in institutions at a "moderate" and "high" level compared with those with lower trust. It can be argued that when people trust institutions, they are more likely to believe that the government and other institutions will use redistribution policies fairly and effectively to benefit everyone in society. For Hypothesis 3, we explored the potential influence of socio-economic and demographic factors on decisions supporting income equality. While we did find some partial

evidence to support this hypothesis, it's worth noting that we did not identify significant differences between categories for age groups and number of children. In this study, interesting findings appear as individuals with high material well-being, income, and life satisfaction show reduced support for income equality, potentially due to their belief in hard work and meritocracy. Conversely, those with higher institutional trust are more likely to endorse income equality. Demographic factors such as rural residence and female gender correlate with higher support for income equality. Education levels show that as education increases, so does the inclination towards greater incentives for individual effort. Country-level factors like higher level of GDP per capita, lower unemployment, and reduced income inequalities positively influence support for redistributive policies. These results highlight the complexity of income equality perceptions, suggesting a need for targeted policies, trust-building in institutions, and context-specific approaches to address income disparities effectively. It is important to acknowledge certain limitations in this study. This study utilizes data obtained from 42 different countries that have different social, cultural, and economic characteristics. Nevertheless, it is important to acknowledge that various unexamined characteristics specific to these societies and nations, such as the degree of democracy, freedom of speech, different components of social capital, media and internet censorship, geographical location, and many others, may also influence perceptions of income equality. To comprehensively understand the full spectrum of factors that potentially shape individuals' behavior, future research endeavors may delve into an analysis of these additional aspects.

REFERENCES

Acemoglu, D. and Robinson, J. A. (2006) *Economic Origins of Dictatorship and Democracy,* New York: Cambridge University Press.

Acemoğlu. D, & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty.* New York: Crown Business.

Aigner, D. J., & Heins, A. J. (1967). On the determinants of income equality. *The American Economic Review*, 57(1), 175-184.

Archer, K. J., & Lemeshow, S. (2006). Goodness-of-fit Test for a Logistic Regression Model Fitted using Survey Sample Data. *The Stata Journal*, 6(1), 97–105. https://doi.org/10.1177/1536867X0600600106

Bartels, L. M. (2016). *Unequal democracy: The political economy of the new gilded age.* Princeton University Press.

Bernerth, J. B., Cole, M. S., Taylor, E. C., & Walker, H. J. (2018). Control variables in leadership research: A qualitative and quantitative review. *Journal of Management*, 44(1), 131-160.

Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. (2022). *World Inequality Report 2022*, World Inequality Lab, wir2022.wid.world

Chang, H.-J. (2002). *Kicking Away the Ladder: Development Strategy in Historical Perspective* (1st ed.). Anthem Press

Chang, H.-J. & Gershman, J. (30 Dec, 2003). Kicking Away The Ladder: The "Real" History Of Free Trade, *Foreign Policy in Focus,* https://fpif.org/kicking_away_the_ladder_the_real_history_of_free_trade/, Accessed 19.09.2023.

Chang, H. (2015). *Kalkınma Reçetelerinin Gerçek Yüzü*, (Çev. T. Akıncılar) 6. Baskı, İstanbul: İletişim Yayınları.

Colagrossi, M., Karagiannis, S., & Raab, R. (2019). The median voter takes it all: Preferences for redistribution and income inequality in the EU-28. *JRC Working Papers in Economics and Finance.* No. 2019/6, doi:10.2760/797251

Corneo, G. and Gruner, H. P. (2002) Individual Preferences for Redistribution, *Journal of Public Economics*, 83, 87–107.

Dabla-Norris, M. E., Kochhar, M. K., Suphaphiphat, M. N., Ricka, M. F., & Tsounta, M. E. (2015). Causes and consequences of income inequality: A global perspective. International Monetary Fund.

Dutta, N., & Sobel, R. S. (2023). Trust and attitudes toward income inequality: Does individualism matter?. *European Journal of Political Economy*, 78, 102351.

Easterly, W. (2001) The Middle-Class Consensus and Economic Development, *Journal of Economic Growth*, 6, 317–335.

Finseraas, H. (2009). Income inequality and demand for redistribution: a multilevel analysis of European public opinion. *Scandinavian Political Studies.* 32 (1), 94–119.

Franko, W. (2017). Understanding Public Perceptions of Growing Economic Inequality. *State Politics & Policy Quarterly,* 17(3), 319-348. doi:10.1177/1532440017707799

Gelman, A. (2008). Scaling regression inputs by dividing by two standard deviations. *Statistics in medicine,* 27(15), 2865-2873.

Gould, E. D., & Hijzen, A. (2017). In Equality, We Trust. *Finance & Development*, 54(1). Retrieved from https://www.imf.org/external/pubs/ft/fandd/2017/03/gould.htm.

Gujarati, D. N. (195).*Basic Econometrics.* 4. New York: United State Military Academy.

Green, William H.(2000). *Econometric Analysis.* 4. New Jersey: Prentice Hall.

Hovhannisyan, A., Castillo-Ponce, R. A., & Valdez, R. I. (2019). The determinants of income inequality: The role of education. *Scientific Annals of Economics and Business*, 66(4), 451-464.

Jones, C. I. (2015). Pareto and Piketty: The macroeconomics of top income and wealth inequality. *Journal of Economic Perspectives*, 29(1), 29-46.

Katz, M. B., Stern, M. J., & Fader, J. J. (2005). Women and the paradox of economic inequality in the twentieth-century. *Journal of Social History*, 65-88.

Kenworthy, L., & McCall, L. (2008). Inequality, public opinion and redistribution. *Socio-Economic Review,* 6(1), 35-68.

McCall, L., & Kenworthy, L. (2009). Americans' social policy preferences in the era of rising inequality. *Perspectives on Politics*, 7(3), 459-484.

Medve-Balint, G., & Boda, Z. (2014). The poorer you are, the more you trust? The effect of inequality and income on institutional trust in East-Central Europe. *Sociologicky Casopis*, 50(3), 419.

Meltzer, A. H., & Richard, S. F. (1983). Tests of a rational theory of the size of government. *Public Choice*, 41(3), 403-418.

Milanovic, B. (2000). The median-voter hypothesis, income inequality, and income redistribution: an empirical test with the required data. *European Journal of Political Economy*, 16 (3), 367–410.

Milanovic, B. (2012). *Global income inequality by the numbers: in history and now-an overview-*. World Bank Policy Research Working Paper, (6259).

Moene, K. O. & M. Wallerstein (2003). Earnings inequality and welfare spending: a disaggregated analysis. *World Politics,* 55 (4), 485–516.

Perrin, F. (2022). Can the historical gender gap index deepen our understanding of economic development? *Journal of Demographic Economics*, 88(3), 379-417.

Piketty, T. (2013[2014]). *Capital in the Twenty-First Century*. (A. Goldhammer, Trans.) Harvard University Press.

Pressman, S. (2015). *Understanding Piketty's Capital in the Twenty-first Century*. Routledge.

Rodrik, D. (2011). *Akıllı küreselleşme.* Çev: Burcu Aksu. Ankara: Efil Yayınevi.

Rodrigiuez, F. (1999). Does distributional skewness lead to redistribution? Evidence from the United States. Economics & Politics 11 (2), 171–199.

Ruel, E., & Hauser, R. M. (2013). Explaining the gender wealth gap. *Demography*, 50(4), 1155-1176.

Stiglitz, J. E. (2017). *Globalization and its discontents revisited: Anti-globalization in the era of Trump*. WW Norton & Company.

Smith, A. (1776 [2018]). *Uluslararın Zenginliği* (Cilt 1). (Ayşe Yunus, Mehmet Bakırcı Trans). İstanbul: Yeni Alan Yayıncılık

Trump, K.-S. (2023). What does it take to be rich? Asking reasonable survey questions about income inequality. *Research & Politics*, 10(3). https://doi.org/10.1177/20531680231187563

United Nations Department of Economic. (2021). *World social report 2021: reconsidering rural development*. United Nations.

Wietzke, F. B. (2016). Kicking away the ladder? Poverty reduction and public support for redistribution in emerging economies. *Socio-Economic Review*, 14(3), 419-442.

Wietzke, F. B. and Sumner, A. (2014) What Are the Political and Social Implications of the 'New Middle Classes' in Developing Countries? *International Development Institute Working Paper* 2014–03, London, King's College.

Williamson, J. (2004). The Strange History of the Washington Consensus. *Journal of Post Keynesian Economics*, 27(2), 195–206. http://www.jstor.org/stable/4538920.

Wong, T. K., Wan, P. S., & Law, K. W. (2009). Public perceptions of income inequality in Hong Kong: Trends, causes and implications. *Journal of Contemporary China*, 18(61), 657-673.

Xu, P., & Garand, J. C. (2010). Economic context and Americans' perceptions of income inequality. *Social Science Quarterly*, 91(5), 1220-1241.

Appendix 1. Country Codes and Sample Distribution by Countries

Country Code	Freq.	Percent	Cum.
ARG	620	1.22	1.22
ARM	645	1.27	2.50
AUL	1546	3.05	5.55
BNG	1165	2.30	7.86
BOL	1695	3.35	11.20
BRA	1010	2.00	13.20
CAN	4018	7.94	21.14
CHL	615	1.22	22.35
COL	1520	3.00	25.36
CYP	582	1.15	26.51
CZR	1096	2.17	28.67
ECU	1036	2.05	30.72
ETH	577	1.14	31.86
GMY	1336	2.64	34.50
GRC	916	1.81	36.31
GUA	1070	2.11	38.42
INS	2618	5.17	43.59
JPN	756	1.49	45.09
KEN	1090	2.15	47.24
MAD	929	1.84	49.08
MAL	1304	2.58	51.65
MEX	1453	2.87	54.52
MNG	1611	3.18	57.71
MOR	1200	2.37	60.08
NIC	867	1.71	61.79
NIG	1125	2.22	64.01
NTH	1244	2.46	66.47
PER	1133	2.24	68.71
PHI	1200	2.37	71.08
ROK	1245	2.46	73.54
ROM	705	1.39	74.93
RUS	1063	2.10	77.03
SLO	1027	2.03	79.06
SRB	737	1.46	80.52
TAJ	1200	2.37	82.89
THI	883	1.74	84.63
TUN	882	1.74	86.38
TUR	1919	3.79	90.17
UKR	585	1.16	91.32
URU	841	1.66	92.98
USA	2447	4.83	97.82
ZIM	1104	2.18	100.00
Total	50,615	100.00	

Source: Compiled by the author.

Appendix 2. Frequency Table of Variables

	Freq.	Percent	Valid	Cum.
Dependent Variable: Income equality				
Free market capitalism	29656	58.590	58.590	58.590
Support for redistributive policy	20959	41.410	41.410	100.000
Material well-being				
Low	6109	12.070	12.070	12.070
high	44506	87.930	87.930	100.000
Life-satisfaction				
Low	11482	22.680	22.680	22.680
High	39133	77.320	77.320	100.000
Institutional trust				
Low	9922	19.600	19.620	19.620
Moderate	31694	62.620	62.660	82.280
High	8775	17.340	17.350	99.630
Very	188	0.370	0.370	100.000
Income				
Low	18902	37.340	37.340	37.340
Medium	19689	38.900	38.900	76.240
High	12024	23.760	23.760	100.000
Employment Status				
Other	18432	36.420	36.420	36.420
Unemployed	3868	7.640	7.640	44.060
Student	7705	15.220	15.220	59.280
Housewife	6206	12.260	12.260	71.540
Retirees	6201	12.250	12.250	83.790
Employee	8203	16.210	16.210	100.000
Number of children				
No child	15346	30.320	30.320	30.320
1	8916	17.620	17.620	47.930
2	13372	26.420	26.420	74.350
3	6842	13.520	13.520	87.870
4	3178	6.280	6.280	94.150
5	1369	2.700	2.700	96.850
6	775	1.530	1.530	98.390
7	349	0.690	0.690	99.080
8	221	0.440	0.440	99.510
9	111	0.220	0.220	99.730
10	59	0.120	0.120	99.850

Appendix 2. Frequency Table of Variables (continued)

11	20	0.040	0.040	99.890
12	22	0.040	0.040	99.930
13	8	0.020	0.020	99.950
14	6	0.010	0.010	99.960
15	5	0.010	0.010	99.970
16	1	0.000	0.000	99.970
17	2	0.000	0.000	99.970
18	3	0.010	0.010	99.980
21	3	0.010	0.010	99.990
22	5	0.010	0.010	100.000
23	1	0.000	0.000	100.000
24	1	0.000	0.000	100.000
Place of residence				
Urban	34041	67.250	67.250	67.250
Rural	16574	32.750	32.750	100.000
Sex				
Male	24717	48.830	48.830	48.830
Female	25898	51.170	51.170	100.000
Education level				
Primary school	15794	31.200	31.200	31.200
High school	18325	36.200	36.200	67.410
University	12293	24.290	24.290	91.700
Graduate	4203	8.300	8.300	100.000
Religiosity				
Religious	32374	63.960	63.960	63.960
Not religious	14437	28.520	28.520	92.480
Atheist	3804	7.520	7.520	100.000

Source: Compiled by the author.

Appendix 3. Descriptive Statistics for macro variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Gdppc	50,615	4.255	.378	3.346	4.797
Top10share	50,615	1.464	.069	1.32	1.622
Unemployment	50,615	.709	.265	-.125	1.237
Womenrep	50,615	1.343	.216	.529	1.725

Source: Compiled by the author.

Appendix 4. Matrix of Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) Material well-being	1.000														
(2) Life satisfaction	0.176	1.000													
(3) Institutional trust	-0.021	0.065	1.000												
(4) Income	0.116	0.186	0.040	1.000											
(5) Age groups	0.064	0.020	-0.017	-0.062	1.000										
(6) Employment status	-0.071	-0.074	0.015	-0.121	-0.057	1.000									
(7) Place of residence	-0.036	-0.046	0.124	-0.092	-0.048	0.074	1.000								
(8) Sex	0.003	-0.004	0.006	-0.028	-0.031	0.173	-0.004	1.000							
(9) Education level	0.119	0.093	-0.064	0.252	-0.037	-0.202	-0.218	-0.033	1.000						
(10) Religiosity	0.066	0.022	-0.065	0.051	0.020	-0.090	-0.154	-0.060	0.190	1.000					
(11) Number of children	-0.075	-0.013	0.041	-0.087	0.414	0.035	0.119	0.044	-0.221	-0.133	1.000				
(12) Gdppc	0.186	0.124	-0.094	0.067	0.255	-0.210	-0.274	0.006	0.250	0.320	-0.160	1.000			
(13) Top10share	-0.144	-0.018	-0.052	-0.081	-0.216	0.110	0.020	-0.012	-0.192	-0.271	0.079	-0.419	1.000		
(14) Unemployment	0.029	-0.039	-0.100	0.015	-0.007	0.057	-0.034	0.023	0.024	-0.083	-0.026	-0.076	0.074	1.000	
(15) Womenrep	0.003	0.075	-0.133	0.022	0.059	0.040	-0.097	-0.011	0.074	0.036	0.000	0.058	-0.018	-0.164	1.000

Source: Compiled by the author.