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How Income Inequality Affects Voter Turnout

Deniz Guvercin*

Summary

Determinants of voter turnout have been extensively researched for years. However, there are few studies that explore the link between inequality and voter turnout in all dimensions. There has been sufficient empirical research reporting that income inequality affects negatively voter turnout. This study brings new insight by considering interaction and U-turn relation by the empirical evaluation of the the link between income inequality and voter turnout. Modelling U-turn relation by the model reveals that there is threshold level where the relation between voter turnout and inequality flips from negative to positive. The model outcome reveals that the impact of inequality on voter turnout is high and positive in countries with high income inequality of above 0,32, and negative in countries with low income inequality of below 0,32. Moreover, adding interaction term with GDP growth rate reveals that if economic growth is positive and significant, the growing inequality tends to reduce voter turnout, which complies with the Schattschneider hypothesis, which is highly referred to in Electoral Politics.

Key Words: Income Inequality, Voter Turnout, Schattschneider Hypothesis, U-Turn Relation

Jel Classification: P16, C51, 015

Introduction

Economic inequality produces significant social and political outcomes. Social dissatisfaction and stress load on society, which is prompted by highly unequal GDP distribution, might provoke social discontent, even turmoil and riots. If the political system does not provide solutions to growing inequality, citizens might take action to change the system. In the democratic system, elections provide the channel though which citizens can influence politics. Electorates use elections to change the scope of economic policies. However, even if there is equal distribution of political rights across the population, people might not get motivated to go to the polls to affect income distribution. This study is an empirical analysis of the impact of economic inequality on voter turnout.

Democracy which distributes political rights equally across population does not seem to generate equivalent equality in terms of income distribution, particularly in matured democracies where bribery and fraud is in minimum level. In capitalist democracies, even though all individuals enjoy higher incomes, some groups of people enjoy a higher increase than other.

In case economic inequality worsens, voter reaction is basically an empirical question. Democracy is the political system where the majority make decisons of binding set of economic and political policies,

* Assistant Professor, Istanbul Arel University, Department of International Trade & Finance, Istanbul/Turkey, e-mail: denizguvercin@arel.edu.tr

reference boundaries, rules, and regulations. Therefore, it is obvious that social, economic and political crises influence voting behavior of majority. The major focus of this study is the impact of economic inequality not on the election of policymakers and policy sets, but on the level of voter turnout. The main purpose is to establish whether society increases the participation in elections as a result of growing economic inequality.

With regard to the influence of economic inequality on the participation in elections, the main hypothesis primarily argued is that participation levels should increase due to worsening economic inequality. The paper attempts to investigate whether the hypothesis is valid, and whether it is valid for the selected sample (simple random sampling - in clusters) for this study.

Economic Inequality and Voter Turnout

By using the data set for democratic countries, Solt (2008) finds that growing income inequality decreases political engagement of people whose income level is relatively low. Solt (2010) reports that income inequality has a negative effect on the voter turnout rates and that voters in the high-income groups tend to participate more in elections as inequality deepens. Solt (2010) tests Schattschneider's hypothesis (1960), which argues that as the income gap between rich and poor expands, the rich manipulate, so to speak, the political system for its benefits, causing voters in the low income group to feel depressed and demotivated to vote. Solt (2008) argues that because economic welfare can be used to achieve larger political gains, the rich people tend to use their economic wealth to gain more political privileges in order to obtain more economic gains, which ultimately worsens economic inequality. In other words, worse income inequality further deepens income inequality.

Therefore, according to Schattschneider's hypothesis, most prosperous and affluent people tend to shape politics and economic policies. In such a political environment, low- income voters become more reluctant to participate in politics and accordingly in elections. This approach is summarized by Solt (2005, page 21) as "One's political engagement, however, is shaped not only by how much one has, but also how much money everyone else has". This hypothesis is grounded on the premise that if low-income electorates believe that growing inequality further increases the influence of wealthy electorates on politics, they participate less in politics.

However this approach rules out the option whereby the democratic system, which is based on multiparty electoral competition, allows each citizen to choose the policy that they find most beneficial to them. Hence our assumption is that even if policymakers are influenced by the lobbying of the affluent class, they will not gain from electoral competition unless they take into account public economic needs and concerns.

The aforementioned hypothesis focuses on the distributive aspects of the democratic system. Meltzer and Richard's (1981) theoretical approach sheds light on the redistribution mechanism in electoral democracy. The researchers argue that median-income voters determine the tax rate and hence the redistribution of wealth in society. According to the model, if there is growing inequality and the affluent become increase their wealth - the mean income rises compared to median income, then the median voter punishes the affluent by setting higher tax rates and redistributing wealth in favor of the lower income class. However, this analysis is based on the premise that every individual participates in elections, which is not an empirical fact. In this regard, the party that supports high redistribution, the median voter (party) in Meltzer-Richard

model, is elected if voter turnout level for lower-income groups is not low. Under this scenario, all income groups will benefit from participation in elections, because through redistribution there would be significant relative income changes. Under this setting, we assume that the low-income groups tend to participate more in elections to have higher after-tax income, while the rich would participate so as not to lose their pre-tax income. On the other hand, Benabou (1996) argues that growing inequality is not a factor of more redistributive spending, which seems not to support the hypothesis.

Muller and Stratmann (2003) claim that lower voter turnout levels is the reason for growing income inequality. They claim that if low-income groups participate less in elections, leftwing parties that admittedly adapt redistribution policy would not be elected, which utlimately results in growing income inequality.

There are very few studies, Solt (2008), Solt (2010), Horn (2011), Muller and Stratmann (2003), focusing on the effect of economic inequality on voter turnout. This study fills the gap in the literature by giving cross-country evidence by including dozens of control and interaction variables and quadratic terms to capture the non-linear relations.

Control Variables

Scholars studying the determinants of voter turnout investigate whether specific factors, including factors related to political system, individual characteristics, and demographic properties can generate variation in voter turnout. Smets and van Ham (2013) report that 170 different independent variables have been used by scholars studying the determinants of voter turnout.

The resource model emphasizes that the decision to go to the polls is driven by resources, money, time and skills (Smets & van Ham, 2013). Lijphart (1997) argues that if a voter's income level rises, it is more probable that they cast a vote. Geys (2006) tests this argument with country level data and reports that voter turnout in richer countries is higher. Additionally, according to economic voting literature (Lipset, 1969); the voter would re-elect the incumbent party if it successfully manages economy. If voters are satisfied with the economic performance of the incumbent party, they might re-elect the incumbents. Therefore, to control resource effect we use GDP growth rate of the countries for the year 2014.

Jackman (1987) argues that institutions, such as competitive districts, electoral disproportionality, multipartyism, unicameralism, and compulsory voting, affect voter turnout rate. Our data is collected from countries with different political systems where different types of electoral systems have been established. The data examined are the outcomes of the elections for the European Parliament, as well as presidential and parliamentary elections. We control these different particular types of political systems with related dummy variables.

Filer, Kenny and Morton (1993), and Tenn (2005) claim that voter turnout tends to rise with the increase in the education level. The logic behind this assumption rests on the fact that the voters who have access to better education improve their political skills and understanding of the mechanisms of the democratic system. With the improvement in education, the political information becomes more relevant and the complexity of political interactions becomes more understandable, which in turn lowers voting costs and raises voter motivation. To control this effect, the secondary school enrollment rate is included into the model as a control variable.

Smets and van Ham (2013) find that 65 out of 90 studies use *age* as the independent variable. Empirical regularity in the data shows that the age variable is inversely related to voter turnout. Therefore, to control

the age factor we introduced the *age variable* that is the percentage of the population aged between 15 and 64 years.

Country size has been used as the control variable in previous research. Oliver (2000), Blais et al (2003) argue that in densely populated countries politics is more concentrated because the community interacts more easily, which in turn reduces voter turnout. To control country size, population size has now been used.

Schlozman et al (1994) argue that because men differ from women in terms of financial situation, social life and roles, family responsibilities, taste for conflict and time allocation, going to poll behavior is gender-specific. He argues that men tend to participate in elections more often than women. Hence, to control the *gender effect* the proportion of female population in total population has been used as the control variable.

Life expectancy at birth in the country measures the number of years that a person is expected to live. If life expectancy is high in the country, we assume that socioeconomic variables, including security and health care, is stabilized at high levels. Blais et al (2003) report that, if life expectancy at birth is high, voter turnout rate is low.

Healthcare conditions and public access to health facilities is seen as affecting voter turnout (Denny and Doyle (2007), Mattilla et al (2013)). A well-functioning health system provides better healthcare, and curbs the spread of diseases before their esacaltion into epidemic. Therefore, the electorate would have physical and mental strength and motivation to go to the polls. To control this *health facilities* effect, healthcare expenditures as a share of the GDP has been used in this study.

The quality of democracy presumably affects voter motivation. If the democratic quality is high the election results are affected by manipulation of external factors. To control the quality of democracy across countries, the Freedom House indicator which measures the quality of democracy is used.

To control the nature of the socioeconomic development level across countries, urban population size is used. Urban population is more politically sophisticated so that the voter turnout in urban population would be higher than the one among the rural population.

Participation-in-elections behavior might be different in rentier economies, where economic development solely depends on natural resources. In order to avoid exclusion of confounding variable, it is included into the model as the percentage of mineral rents in GDP. Another control variable considered is the number of patents received in a year which can represent the technological capacity of the country. The share of defense expenditure in GDP is also used for control purposes. It represents whether there is a civic regime in place, which impacts the effectiveness of democratic institutions.

Data & Econometric Methods

Table 1. *Descriptive Statistics of Voter Turnout Across Countries Categorized by Election Types*

Voter Turnout Rate

	European Union	Parliamentary	Presidential
Mean	43.68	64.12	57.17
Standard Deviation	15.55	13.86	9.82
Max	85.55	89.62	74.13
Min	18.2	42.5	47.5

Voter turnout is calculated by dividing the number of votes by the total number of registered voters. The used voter turnout data is obtained from the open online source of International Institute for Democracy and Electoral Assistance.

There are certain differences in election categories in terms of participation levels. The mean voter turnout rate is highest for parliamentary elections, whereas EU election category has the lowest mean voter turnout rate. The variance of voter turnout levels in each category represents the measure of the distribution around the mean voter turnout rate. It is highest in EU election category, and lowest in presidential election category.

Table 2. *Descriptive Statistics for Income Inequality*

Gini Coefficient[1]

	European Union	Parlia-mentary	Presidential
Mean	32.19	40.23	34.35
Standard Deviation	3.14	11.01	6.55
Max	36.68	63.38	43.51
Min	26.13	24.55	26.12

Therefore, the EU election is marked by the lowest attendance rate and as the most volatile one. Table 2 represents some descriptive statistics on Gini coefficient for three categories in the sample. Mean of gini coefficient is lowest for EU election category, whereas mean of gini coefficient for parliamentary election category is higher than mean of gini coefficient for presidential election category. EU election category has lowest variance of the Gini coefficient, whereas the variance of the Gini coefficient for the parliamentary election category is higher than for the presidential election category. Therefore, countries in the EU election category has low-income inequality, and countries in this category that do not have mean value of gini coefficient, have values around the mean value. However, in parliamentary election category, countries vary significantly in terms of level of inequality where the mean income inequality is the lowest value among all categories.

The sample consists of 55 countries. We select countries in the European Union and exclude those that do not have data for at least one variable in the model. We select countries randomly for Presidential and Parliamentary election categories and exclude the ones that they do not have data for at least one variable in the model. In other words, considering each category as cluster I used One-Stage Cluster sampling for the European Union and Two-Stage Cluster sampling for remaining clusters.

I used voter turnout data for the year of 2014. In this specific year, the data for EU parliamentary, parliamentary and presidential elections exist for countries studied in this paper.

[1] Gini coefficient takes values between 0 and 1. However, I normalize it by using 0-100 scale that means that the mean of Gini coefficient which is 32.195 in the sample is 0,32195.

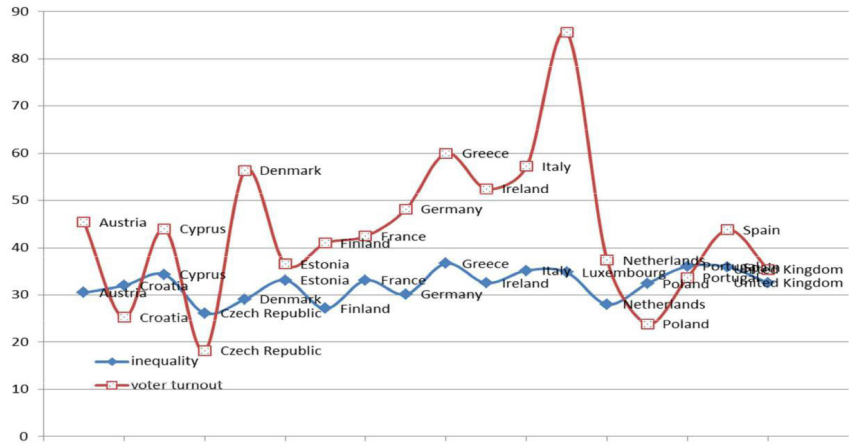


Figure 1. *Voter Turnout Rates, Gini Coefficients Across Countries in European Union Cluster Sample*

Voter turnout rates and Gini coefficients display similar patterns for some countries in the EU parliamentary system. Estonia, Poland, United Kingdom, Croatia, Portugal, Netherlands have both voter turnout and Gini coefficient values within the 30-35 range. On the other hand, Germany, Italy, Greece, Luxemburg, Denmark, Austria have voter turnout rate values much greater than Gini coefficient which is around 25-30 range.

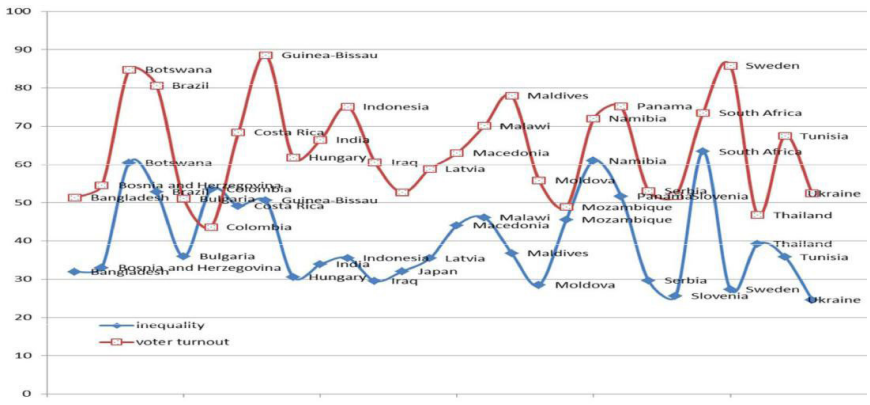


Figure 2. *Voter Turnout Rates, Gini Coefficients: Across Countries in Parliamentary System Cluster Sample*

Voter turnout rates and Gini coefficients display similar patterns for some countries in the parliamentary system category. Countries such as Botswana, Brazil, Namibia, and South Africa have voter turnout levels in 70-80 % range, and have high Gini coefficients that disperse around 55-65 range. The voter turnout rates in Sweden, Ukraine, Bangladesh, Hungary, India, Indonesia, Maldives, Panama, Serbia, and Slovenia are within the 65-80 % range and the Gini coefficient is in 30-40 range. Sweden has the greatest participation level, and the Ukraine has the lowest participation level. Additionally, difference between the voter turnout and the Gini coefficient is maximum in Sweden.

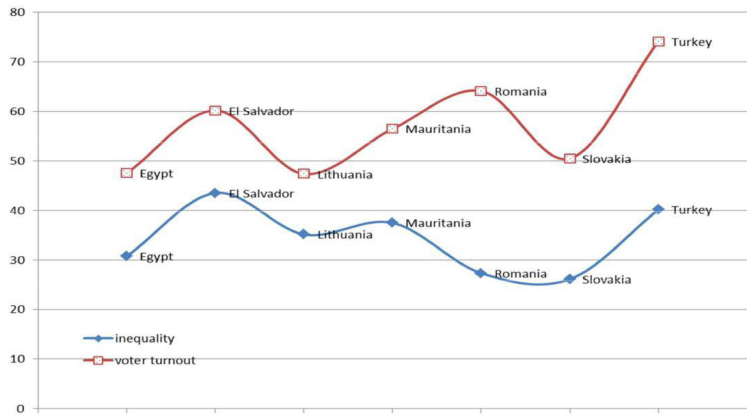


Figure 3. *Voter Turnout Rates, Gini Coefficients Across Countries in Presidential System*

There are not many countries in the presidential election category. The highest voter turnout rate observed in this category is around 72 % for Turkey, and the lowest one is around 30 % for Egypt. The voter turnout observations are around 50-75 %, and the Gini coefficient observations are around 30-40.

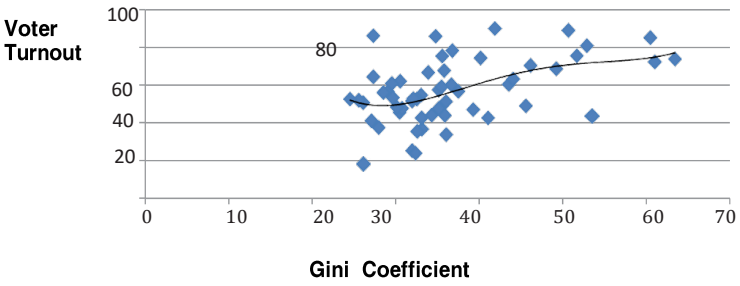


Figure 4. *Plot of Gini Coefficient against Voter Turnout Rates Across All Sample Countries*

Figure 4 illustrates that there seems to be positive non-linear relation between Gini coefficient and the voter turnout rates. Thus, voter turnout rates and Gini coefficients move together, and the voter turnout displays a slow increase in higher inequality level.

Econometric Model and Estimation Results

We use standard OLS estimation technique because OLS technique is suitable for cross country data. Because the data is cross section, we ignore the autocorrelation and consider the heteroskedasiticity problem. It can be argued that countries in the same election category constitute each cluster. Clustered standard errors also robust the heteroskedasticity.

In the assumption of cluster sampling the linear model and the error term is the following:

$$y_{gm} = \alpha + X_{gm}' \beta + V_{gm} \quad (1)$$

where $m = 1, \ldots, M_G$; $g = 1, \ldots, G$

$$V_{GM} = C_G + U_{GM} \quad (2)$$

where $m = 1, \ldots, M_G$

Wooldridge (2006, page 8) argues that "If v_{gm} has the form in (2), the amount of within-cluster correlation can be substantial,

which means the usual OLS standard errors can be very misleading".The variance matrix estimator, also provided by Stata, is based on absence of cluster correlation and heteroskedasticity. The variance matrix estimator, also provided by Stata, is based on absence of cluster correlation and the heteroskedasticity.The cluster robust covariance matrix estimator which is the generalization of the Huber (1967) and White (1980) is the following:

$$Cov(\widehat{\beta}) = (X'X)^{-1}\left[\sum_{g=1}^{G} X_g{}' \widehat{v_g}\widehat{v_g} X_g\right]$$

I used the logarithmic form for the dependent and independent variables in the model to have less skewed distribution for residuals, to linearize the relationship, and particularly to have less skewed, more symmetrical distribution for independent variables most of which are small ratios

The estimated model is the following[2]:

$$\log Voterturnout_{it} = \alpha + \beta_1 \log Inequality_{it} + \beta_2 \log Lagged\ Voterturnout_{it} +$$
$$\beta_3 \log Unemployment\ 2014_{it} + \beta_4 \log Unemployment\ 2013_{it} +$$
$$\beta_4 \log Unemployment\ 2013_{it} + \beta_5 \log Growth\ 2014_{it} + \beta_6 \log Growth\ 2013_{it} +$$
$$\beta_6 \log Life\ expectancy_{it} + \beta_7 \log Rural\ Population_{it} + \beta_8 \log Health\ Expenditure_{it} +$$
$$\beta_9 \log Patent_{it} + \beta_{10} \log Freedom\ Index_{it} + \beta_{11} \log\ Female\ Population_{it} +$$
$$\beta_{12} \log\ Population_{it} + \beta_{13} \log Enrollment_{it} + \beta_{14} log\ Age\ 15-64 + \beta_{14} Mineral\ Rents +$$
$$\beta_{15} Military\ Expenditure_{it} + \beta_{16} Dummy\ Parliamentary_{it} + \beta_{17} Dummy\ Presidential_{it} + \varepsilon_{it}$$

Table 4. *OLS Estimation Results*

Dependent Variable: Log(Voter Turnout)	**Model 1**	Model 2	Model 3	Model 4
Log (Inequality)	**0.51***	.50**	.34**	0.25 **
Log (Lagged Voter Turnout)	**0.86 ***	1.02*	1.13*	1.06*
Log(Unemployment2014)	**.14 ***	.09	**.70***	.737*
Log(Unemployment2013)			-.55*	-.60*
Log(Growth 2014)	.030	.15*	.17	.16*
Log(Growth 2013)		.074	.15	.15*
Log(Life Expectancy)	-1.51	-.398		
Log(Rural Population)	.01			
Log(Health Expenditure)	.077			
Log(Patent)	**.10***	.10*	.10*	.09*
Log(Freedom Index)	.09	-.12**	-.24	-.21*
Log(Female Population)	-1.00	-3.06*		
Mineral Rents	-.01			
Military Expenditure	-.09			
Dummy Parliamentary	-.01	.23*	.24*	.25*
Dummy Presidential	.22*	.30*	.19*	.20
Log(Population)	-.3426	**.25***	.19	.12*
Log(Age_15-64)	-.905	.049	.52	
Log(Enrollment)	.253	-.337*	-.24**	-.18*
R²	**0.91**	0.89	0.96	0.95

[2] Models are different in terms of the regressors they include.

Discussion

In all four models coefficients for income inequality are positive and significant, which means that as inequality rises, voter turnout increases across the countries. The average change in the voter turnout rates across countries in all models as a response to one percent increase in Gini coefficient is around 25- 54. Therefore if the Gini coefficient increases by five percent across countries, the average voter turnout increases by about 1, 25 % to 2, 70 %, which is not negligible, though it is not very significant.

The cross section empirical evidence supports the hypothesis that as income inequality grows, the participation in elections should increase. Therefore, this result suggests that people go to the polls to influence the politics, which is the essence of the democratic system. In this regard, we can say that cross-country evidence suggests that election is the instrument adapted by electorates to regulate the system deficiencies.

Lagged Voter Turnout is positive and significant in all models. If voter turnout in previous elections were one percent higher, voter turnout in current election would be in average higher about 0, 86 % to 1, 13 % across countries. Therefore, if people participated in previous election, with high probability they also attend the next one. Lagged Voter Turnout variable is used to capture time invariant heterogeneity across countries that are not captured by the other control variables.

Unemployment level in year 2014 is significant in all models except the second one, and the unemployment level in year 2013 is significant in all models. The sign of the coefficients imply that if unemployment level increases in election year, 2014, the voter turnout increases, however, turnout rate decreases if the unemployment level in the previous year to election, 2013, increases.

GDP growth in 2014 and 2013 are significant and positive in all models except model 1. The number of Patent issued in a year is significant and positive in all models implying that increase in the number of the patents by 1 %, increases in average the voter turnout across countries around by 1,03 %. The coefficient for (relative) female population is negative and significant in one model and insignificant in other models. Secondary enrollment rate is negative and significant in all models except model 1 implying that as education level increases across countries the voter turnout decreases which is contrary to findings in the literature. Population is significant and positive in two models implying that in crowded countries the voter turnout is higher. Dummy variables for presidential and parliamentary elections indicate that if control variables are constant parliamentary elections and presidential elections have higher voter turnout than European parliamentary elections. Share of military expenditure as % of GDP, mineral rents' share as % of GDP, life expectancy, rural population as % of total population, age group of 15-64 as % of total population are not significant in any models.

Extended Model: U-Turn Relation and Interaction Variables Included

In this section we extend the empirical to include the interaction term obtained by multiplication of gini coefficient with economic growth rate in 2014 to examine whether economic growth rate affects the relationship between the inequality and voter turnout. Additionally squared of gini coefficient is included into the model to examine whether there is a well-behaved non-linear relationship between the gini coefficient and the voter turnout. If it is well-behaved convex relation, quadratic term gets positive coefficient, and if the curvature is well--behaved concave relation, it gets negative coefficient. Because the model

is already linear in parameters, the OLS method can be used for estimation.

The model estimated is the following[4]:

$$\log Voterturnout_{it} = \alpha + \beta_1 Inequality_{it} + \beta_2 InequalitySquared_{it} + \beta_3 Growth_{it} * Inequality_{it} + \beta_4 \log Lagged\ Voterturnout_{it} + \beta_5 \log Unemployment\ 2014_{it} + \beta_6 \log Unemployment\ 2013_{it} + \beta_7 \log Unemployment\ 2013_{it} + \beta_8 \log Growth\ 2014_{it} + \beta_9 \log Growth\ 2013_{it} + \beta_{10} \log Life\ expectancy_{it} + \beta_{11} \log Rural\ Population_{it} + \beta_{12} \log Health\ Expenditure_{it} + \beta_{13} \log Patent_{it} + \beta_{14} \log Freedom\ Index_{it} + \beta_{15} \log\ Female\ Population_{it} + \beta_{16} \log\ Population_{it} + \beta_{17} \log Enrollment_{it} + \beta_{18} log\ Age\ 15 - 64 + \beta_{19} Mineral\ Rents + \beta_{20} Military\ Expenditure_{it} + \beta_{21} Dummy\ Parliamentary_{it} + \beta_{22} Dummy\ Presidential_{it} + \varepsilon_{it}$$

The estimation results in Table 5 imply that after adding Gini coefficient squared to the model, the sign of the coefficient for the Gini turns to negative which was positive in Models 1 to 4. The sign of the estimated coefficient for the quadratic term is positive implying that the curvature is convex. Under the setting of the model 5, the total impact of the inequality on voter turnout is computed by summing up the estimated coefficient for inequality with the coefficient for the squared inequality multiplied by the two times the inequality level. The computation of the total impact of inequality on voter turnout shows that in very low inequality levels of below 32, if income inequality worsens the participation in elections decreases, however the impact goes to none as the Gini coefficient approaches 32. However, beyond this threshold of 32, if income inequality worsens, participation in election increases. Therefore, the model exposes that if inequality is sufficiently low, the impact of income inequality on voter turnout is negative, which does not comply with the hypothesis referred to previously.

Table 5. *Estimation Results: U-Turn Relation and Interaction Variables Included.*

Dependent Variable:	Model 5	**Model 6**
Log(Voter Turnout)		
Inequality	-.01**	-.02*
Inequality Squared	.002*	**.004***
Growth*Inequality		-.001*
Log(Lagged Voter Turnout)	1.06*	**1.37***
Log(Unemployment2014)	.79*	**.97***
Log(Unemployment2013)	- .66*	-.85*
Log(Growth 2014)	.17*	**.21***
Log(Growth 2013)	.15*	**-.85***
Log(Rural Population)		
Log(Health Expenditure)		
Log(Freedom Index)	-.20*	**-.26***
Log(Female Population)		
Mineral Rents		
Military Expenditure		
Dummy Parliamentary	.24 *	**.24***
Dummy Presidential	.137*	.037
Log(Enrollment)	-.23*	**-.06***
Log(Patent)	.10*	**.10***
Log(Population)	.17*	
R²	**0.96**	**0.96**

[3] Models are different in terms of the regressors they include.

These results imply that electorates across countries on average participate more in elections if the economic inequality within the society rises. However, the estimation results show that this effect is very weak in more egalitarian societies and absent in the countries with Gini coefficient lower than 0,32, whereas it is strong in societies where income is distributed very unequally. Schattschneider hypothesis seems to be valid for countries with low income inequality but not for countries with high income inequality.

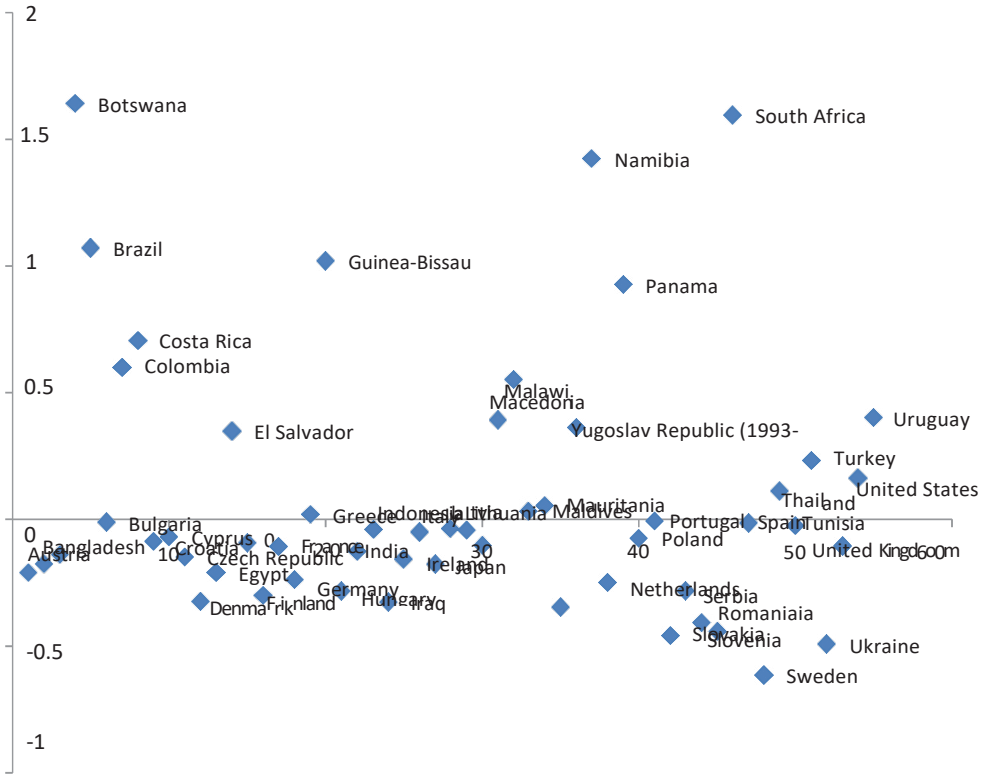


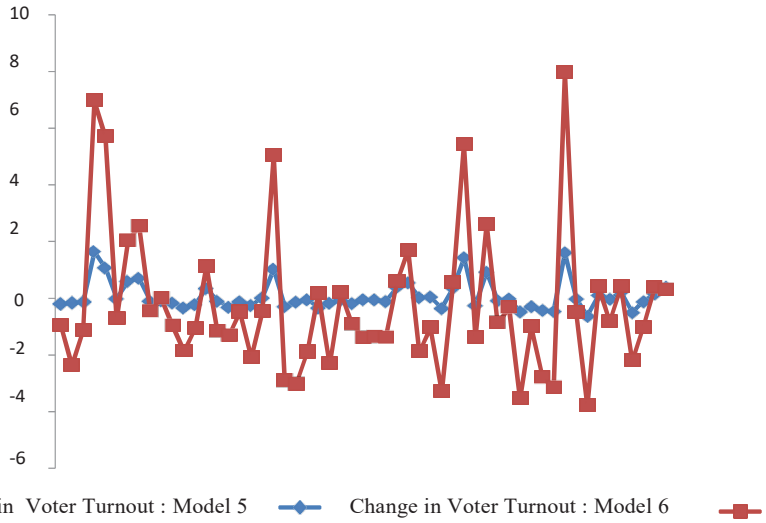
Figure 5. *Percemtage point Increase in Voter Turnout Rate Following the 5% Increase in the Gini Coefficient: Based on Estimations for Model 5*

By using the estimations of the model 5, the difference between the voter turnout after 5 % increase in Gini coefficient and the initial voter turnout rate is illustrated in Figure 5. It shows that according to the model findings: following the 5 % increase in Gini coefficient; in low income inequality countries such as Japan, Denmark, United Kingdom, Sweden, the voter turnout decreases however in the countries with high income inequality such as Brazil, Botswana, Namibia, South Africa the voter turnout increases, and in the countries with medium level of Gini coefficient such as Greece, United States, Turkey, increase in voter turnout is not very significant.

Model 6 implies that interaction variable which is constructed by multiplying the GDP growth with the Gini coefficient is statistically significant and negative. It means that in growing economies voter turnout would

be lower if the income inequality worsens which complies with the *Schattschneider hypothesis.*

Figure 6 displays the change in voter turnout following the introduction of the income growth interaction term into the model 5. Total impact of the income inequality on the voter turnout gets stronger for some countries as the Gini coefficient gets higher. The reason of this is that some of the countries with high income inequality grow with negative rates. Furthermore, in some countries the total impact on the voter turnout changes from positive to negative. The reason of this is that in these countries the economic growth is positive. Therefore this result imply that in countries with high income inequality if economic growth is negative the society going to polls to interfere into the process. However, if the economy grows positively the average voter turnout rate decreases that complies with the Schattschneider hypothesis, but does not comply with the hypothesis we put forth previously.[5]



Conclusion

Electoral participation is the fundamental mechanism in the democratic system that gives the prior consent from society for political and economic decisions to be carried out by the elected ones. Therefore, elections smoothes and restores social discomforts and dissatisfaction even the policies applied impairs some segments of the society.

Economic inequality results in massive accumulation of capital by one side of the population. Democratic system provides an opportunity for the individuals to change economic environment by electing politicians who set an agenda for policies that can reduce the income inequality.

On the other hand, electorates might not get motivated to go to polls for several reasons if economic inequality worsens. If electorates believe that democratic system is not functional in generating equal economic distribution, then they would not incur the cost of voting.

[4] Readers should be aware that the models are constructed for certain year and for certain countries so that the numbers the model imposes should not be generalized for all years and countries.

Voters can attempt to halt the reduction of their relative income against the top income earners by economic activity rather than political activity so that he might not be willing to go to polls. However, if the economic system is functioning while the free enterprise system is dysfunctional, the electorate would see the electoral process as the only solution that would possibly boost voter turnout rates. The econometric estimation results partially confirm such a scenario only if the high inequality is associated with negative income growth.

Without introducing U-turn relation and interaction, econometric estimation results confirm that the electorates go to polls with higher participation rate following worsening economic inequality which supports the hypothesis that voters react inequality by using channels of political system. However, considering U-turn relation in the model reveals that there exist the threshold level where the impact of the inequality on the voter turnout flips. The model outcome implies that the impact of the inequality on the voter turnout is high and positive in countries with high income inequality, above 0,32, and negative in countries with low income inequality, below 0,32.

This study brings new insight by adding the interaction variable between economic growth and income inequality. The model outcomes suggest that if economic growth is positive and significant, the growing inequality tends to reduce voter turnout rather than increase it, which complies with the Schattschneider hypothesis. Therefore, even the U-turn relation imposes the behavior of going to polls following the worsening of income inequality, the interaction effect imposes the behavior of non-participation in elections. In other words, if economy grows even without an even distribution of wealth, voter would not respond to the growing inequality by going to polls.

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Table 3. *Election types across the countries in the sample for 2014*

European Union	Parliamentary Elections	Presidential Elections
Austria	Bangladesh Moldova	Egypt
Croatia	Bosnia and Herzegovina Mozambique	El Salvador
Cyprus	Botswana Namibia	Lithuania
Czech Republic	Brazil Panama	Mauritania
Denmark	Bulgaria Serbia	Romania
Estonia	Colombia Slovenia	Slovakia
Finland	Costa Rica South Africa	Turkey
France	Guinea-Bissau Sweden	
Germany	Hungary Thailand	
Greece	India Tunisia	
Ireland	Indonesia Ukraine	
Italy	Iraq United States	
Luxembourg	Japan Uruguay	
Netherlands	Latvia	
Poland	Macedonia, former Yugoslav	
Portugal	Republic (1993-)	
Spain	Malawi	
United Kingdom	Maldives	