

The Institute of Agricultural Economics
of the Christian-Albrechts-Universität Kiel

**Essays on Voter Behavior and Government
Performance:
Econometric Comparative Analysis in America,
Europe and Africa**

Dissertation
submitted for the Doctoral Degree
awarded by the Faculty of Agricultural and Nutritional Sciences
of the
Christian-Albrechts-Universität Kiel

submitted
M.Sc. Andrea Lendewig
born in Maracaibo

Kiel, 2021

Dean:
1. Examiner:
2. Examiner:
Day of Oral Examination:

Prof. Dr. Karl H. Mühling
Prof. Dr. Dr. Christian H.C.A. Henning
Prof. Dr. Susumu Shikano
17.11.2021

Gedruckt mit Genehmigung der
Agrar- und Ernährungswissenschaftlichen Fakultät
der Christian-Albrechts-Universität zu Kiel

Diese Dissertation kann als elektronisches Medium
über den Internetauftritt der Universitätsbibliothek Kiel
(www.ub.uni-kiel.de; macau.uni-kiel.de)
aus dem Internet geladen werden.

Acknowledgment

I would like to thank all the people who in one way or another accompanied and supported me on this journey. First of all, to my supervisor, Prof. Dr. Dr. Christian Henning, for giving me the opportunity to work with him and for guiding me through this project. To Villigst for the financial support that allowed me to achieve this important goal and to the International Food Policy Research Institute (IFPRI) for their contribution in data collection. To my colleagues in the Department of Agricultural Policy for the shared moments, in particular to Dr. Michael Grunenberg and Dr. Svetlana Petri for all their support and shared knowledge. Finally, my greatest thanks go to my family for their unconditional support, especially my beautiful children and my wonderful husband (my adventure partner) who had to deal with my stress.

Contents

1. Introduction and Summary	1
1.1. Introduction	1
1.2. Summary	7
1.2.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe	7
1.2.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras	9
1.2.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany	12
1.2.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America	15
1.2.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries	17
2. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe	39
2.1. Introduction and Literature Review	41
2.2. Democracy and Party Systems in Honduras and Germany	45
2.2.1. Honduras	45
2.2.2. Germany	46
2.3. Theory of Voting Behavior and Government Performance	47
2.3.1. Voting Behavior	47
2.3.2. Government Performance	48
2.4. Methodology	51
2.4.1. Probabilistic Voter Model	51
2.4.2. Heterogeneity in Voting Behavior	55
2.4.3. Government Performance Indicators	56
2.5. Data	59
2.5.1. Data Sets	59
2.5.2. Dependent Variable	60
2.5.3. Independent Variables	61
2.6. Empirical Application, Comparative Analysis and Results	63
2.6.1. Goodness of Fit and Latent Class Model Estimations	63
2.6.2. Voter Behavior	67
2.6.3. Government Performance Indicators	69
2.7. Summary and Conclusions	71
3. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras	93
3.1. Introduction and Related Literature	95

3.2.	Methodology	101
3.2.1.	Probabilistic Voter Model	101
3.2.2.	Government Performance Indicators	105
3.3.	Data	108
3.3.1.	Surveys	108
3.3.2.	Variables	109
3.3.3.	Inclusion of Abstention	111
3.3.4.	Descriptive Statistics of the Data	111
3.4.	Empirical Application and Results	112
3.4.1.	Nested Multinomial Logit Model	112
3.4.2.	Government Performance Indicators	116
3.5.	Summary and Conclusions	118
4.	The Role of Abstainers in the Policy Making Process in Developing and De-	
	veloped Countries: A Comparative Latent Class Approach for Honduras and	
	Germany	139
4.1.	Introduction	141
4.2.	Literature Review	143
4.3.	Theoretical Framework	146
4.3.1.	Voting Behavior	146
4.3.2.	Abstention	148
4.3.3.	Government Performance	149
4.4.	Methodology and Data	152
4.4.1.	Probabilistic Voter Models	152
4.4.2.	Government Performance Indicators	156
4.4.3.	Data	159
4.5.	Results	164
4.5.1.	Estimation	164
4.5.2.	Probabilities and Relative Marginal Effects	168
4.5.3.	Government Performance Indicators	170
4.6.	Conclusion	173
5.	How Important are Abstainers in Presidential Elections?: A Comparative	
	Analysis between Africa and Latin America	197
5.1.	Introduction and Literature Review	199
5.2.	Voting Paradox	203
5.3.	Theoretical Framework	205
5.3.1.	Voting Behavior	205
5.3.2.	Abstention	206
5.3.3.	Government Performance	207
5.4.	Methodology	210
5.4.1.	Probabilistic Voter Model and Nested Multinomial Logit Model . . .	210
5.4.2.	Government Performance	213
5.5.	Data	215
5.5.1.	Dependent Variable	216
5.5.2.	Independent Variables	217
5.6.	Empirical Application and Results	219
5.6.1.	Nested Multinomial Logit Model	219
5.6.2.	Government Performance Indicators	224

5.7. Summary and Conclusion	227
6. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries	247
6.1. Introduction and Literature Review	249
6.2. Democracy and Abstention in Honduras, Chile and the USA	254
6.3. Econometric Approach and Estimation Strategy	256
6.3.1. Voter Behavior	256
6.3.2. Government Performance	261
6.4. Data	263
6.4.1. AmericasBarometer Surveys	263
6.4.2. Variables	264
6.4.3. Comparative Descriptive Statistics	266
6.5. Empirical Application and Results	269
6.5.1. Probabilistic Voter Model Estimations	269
6.5.2. Voter Behavior in Honduras, Chile and the USA	272
6.5.3. Government Performance Indicators	276
6.6. Summary and Conclusions	279
7. Conclusions	301
7.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe	306
7.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras	308
7.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany	309
7.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America	311
7.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries	312
8. Zusammenfassung	315
8.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe	315
8.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras	318
8.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany	321
8.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America	325
8.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries	327
Appendices	349
A. Methodology	349
A.1. Voter Behavior: Probabilistic Voter Model	350
A.1.1. Rational Choice Approach and Discrete Choice Model	350

A.1.2. Logit Model	351
A.1.3. Voting Components	352
A.1.4. Latent Class Model	354
A.1.5. Nested Multinomial Logit Model	355
A.2. Government Performance Indicators	357
A.2.1. Marginal Effects	357
A.2.2. Relative Marginal Effects	359
A.2.3. Government Accountability	359
A.2.4. Government Capture	360

List of Figures

1.1. Voter Behavior and the Impact on Government Performance	4
2.1. Relative Importance of the Voting Motives	69
2.2. Government Capture Indices	71
3.1. Decision Tree	104
4.1. Probabilities for alternatives in Honduras	168
4.2. Probabilities for alternatives in Germany	169
4.3. Relative importance of voting motives in Honduras	171
4.4. Relative importance of voting motives in Germany	171
6.1. Relative Importance of the Voting Motives	273
6.2. Relative Importance of the Voting Motives by Groups	274
6.3. Abstainers vs. Voters	275
6.4. Relative Importance of the Voting Motives for Abstainers and Voters	275
6.5. Accountability Index by Groups	277
6.6. Accountability Index by Groups for Abstainers and Voters	278
6.7. Capture Indices	279
A.1. Decision Tree	356

List of Tables

2.1. Presidential Election Results Honduras 61

2.2. Federal Election Results Germany 61

2.3. Descriptive Statistics 63

2.4. Goodness of Fit 64

2.5. Latent Class Models M1 65

2.6. Latent Class Models M2 66

2.7. Mean Probabilities 67

2.8. Government Accountability Indices 70

2.9. Transformation of the education variable - Honduras 75

2.10. Transformation of the education variable - Germany 75

3.1. Presidential election results 110

3.2. Descriptive statistics 112

3.3. Nested Multinomial Logit Model 1 113

3.4. Nested Multinomial Logit Model 2 114

3.5. Mean probabilities 115

3.6. Probability to abstain 116

3.7. Relative importance for each voting motive and each nest 116

3.8. Government Accountability 117

3.9. Government Capture 118

4.1. Election results 2017 161

4.2. Descriptive Statistics 164

4.3. Estimation results for models 1 and 2 - Honduras 166

4.4. Estimation results for models 1 and 2 - Germany 167

4.5. Probability of Abstaining by Groups 169

4.6. Accountability Index 172

4.7. Capture Index 172

4.8. Transformation of the education variable - Honduras 176

4.9. Transformation of the education variable - Germany 176

4.10. Estimation results for models 3 and 4 - Honduras 177

4.11. Estimation results for models 3 and 4 - Germany 178

5.1. Senegalese presidential elections results 217

5.2. Honduran presidential elections results 217

5.3. Nested Multinomial Logit Model Senegal 220

5.4. Nested Multinomial Logit Model Honduras 221

5.5. Mean probabilities Senegal 222

5.6. Mean probabilities Honduras 223

5.7. Probability to abstain 223

5.8. Relative Marginal Effects Senegal 224

5.9. Relative Marginal Effects Honduras 224

5.10. Accountability Indexes 225

5.11. Capture Indexes 226

6.1. Presidential Election Results	265
6.2. Descriptive Statistics	268
6.3. Latent Class Models	271
6.4. Mean Probabilities	272
6.5. Accountability Indices	276

1. Chapter

Introduction and Summary

1.1. Introduction

Feeding the world and reducing poverty has always been a challenge, as it is not only about solving the problem but also about tackling the causes. In addition, finding a solution is complex due to the trade-offs between agricultural production and the environment. In other words, to reduce poverty and undernutrition efficient agricultural production must be carried out without damaging the environment. On the other hand, countries like Honduras, where almost half of the population is rural and for whom agriculture is the primary source of income and food security, the agricultural sector is frequently affected by extreme weather events. In this context, this research project, mainly based in Honduras, is part of the program “Third Ways of Feeding The World” (TWW) which is looking to develop an interdisciplinary approach incorporating agricultural science, agricultural economics and agricultural ethics to better understand the trade-offs between sustainable agriculture and the environment.

To reduce poverty and undernutrition, as well as promote economic growth, is necessary the development and implementation of efficient policies. In political theory, elections are considered a fundamental democratic mechanism to guarantee high government performance, since they should reflect the interests of the whole society and serve to control the government. However, in reality, electoral competition often leads to the implementation of distorted policies and low governmental performance (i.e. policy failure) due to low government accountability and high government capture. The former happens when the government lacks incentives to implement efficient policies because they are not being controlled and instead implement policies that are determined by lobbying activities, as well as intrinsic policy preferences. While the latter occurs when the development of policies is biased as more consideration is given to the political interests of some social groups at the expense of the majority because there is no representativeness of society. Although it is not perfect, democracy is often considered the best political system, since it gives people the power to choose their government leaders. In addition, it is a just and convenient form of government allowing the population to live in harmony. Also, it is widely accepted

that democracy, when compared to other political systems, is more efficient promoting economic growth and well-being. The question then arises as to how can be explained the difference in economic development between countries that are democracies with multi-party systems.

Even in countries with well functioning democracies, not all the people who have the right to vote in a presidential election decide to cast a vote. Furthermore, voting in a large national election could be considered an irrational act. This is because voting is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. So, why do many people spend their own time, energy and money to cast a vote that will not make any difference in the electoral outcome?. One reason that some people often offer for voting is "if everybody thought that voting was irrational and a waste of time, nobody would vote and democracy would collapse". Another reason for voting, often mentioned by political scientists, is that it is a civic duty of every citizen in a democratic country. The reasons for electoral abstentionism are very diverse. They could include sociodemographic factors, like the level of education and income; psychological factors, such as the lack of interest in political matters; or political factors, like the lack of trust in political parties or in the electoral system. On the other hand, many argue that educated and informed voters with interest in political matters are more likely to participate in electoral processes. In this sense, in political science, it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored by politicians and, consequently, cannot impact the performance of the government.

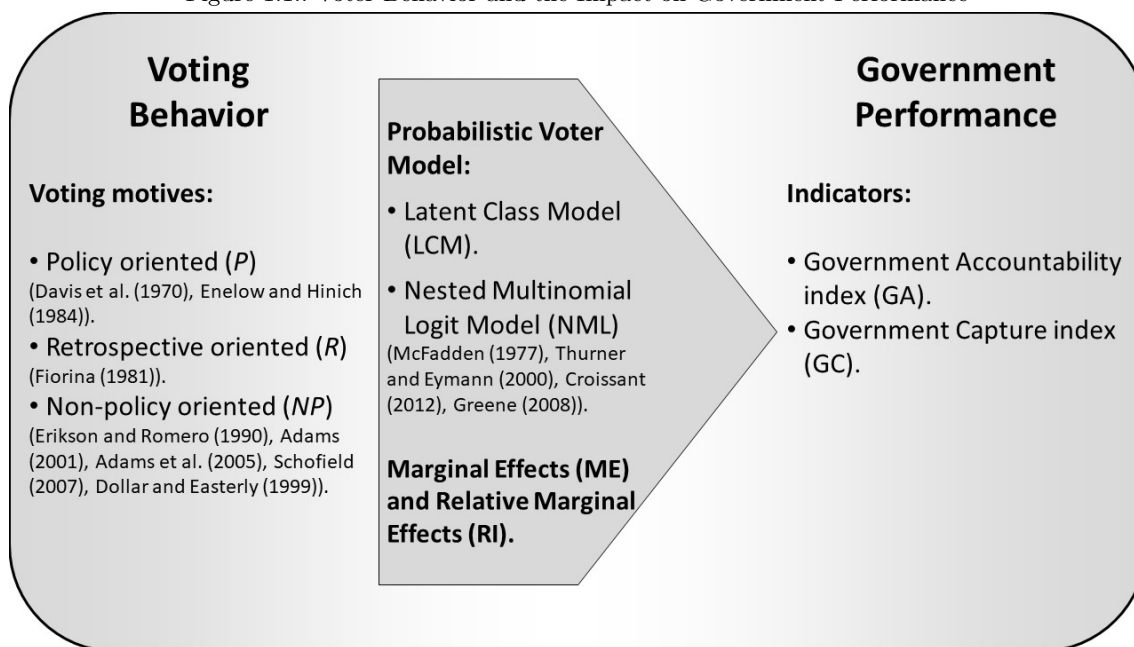
In this cumulative dissertation we study the factors that influence voting behavior in Honduras, as well as in other developing and developed countries. In addition, we analyze empirically the impact of the electoral decision to either vote or abstain on the performance of the government. In particular, we estimate indices to measure government accountability and government capture. In this sense, the existing literature has widely contributed to the understanding of voting behavior, as well as government performance. Fewer researchers, however, have incorporated the aspects of abstention/participation in voter behavior study. One of them is Downs (1957), who explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Later, Riker and Ordeshook (1973) conceptualized the

citizen's choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Furthermore, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention. More specifically, they combined the spatial models of candidate/party choice and abstention/participation choice in a single nested multiattributive discrete choice model, where they took into account policy-specific effects of alienation and indifference. The indicator of abstention they used in their study considered the people who expressed an intention not to vote, as well as those potential non-voters who said they were unsure of their decision due to the fact that non-voters are often under-represented in surveys. Then, for the variable abstention, the answers no and don't know were recorded as one and yes as zero. The complete set of alternatives included the political parties and the option abstention. Nonetheless, they did not include the retrospective component as a factor that influences the electoral decision. Neither did they study the impact of abstention on government performance. More specifically, they did not analyze the role of abstainers in the policy making process.

In our research project we used voter survey data from Honduras, Germany, Senegal, the United States of America (USA) and Chile. For Honduras (the main focus of our study) two sources of data were collected. First, a baseline household survey was carried out as part of a food security project developed by the Government of Honduras and IFPRI (International Food Policy Research Institute). Here, detailed data was collected regarding the socioeconomic and demographic characteristics of the households. Second, a voter survey was conducted to look at beliefs and political preferences of households. For these interviews, we carefully designed a voter questionnaire, using a language easy to understand and considering issues that interviewees could feel related to. The data was collected by the company O&M Estudios y Proyectos. The interviews were carried out just before the general elections in Honduras on November 2017. Collecting the data close to the elections, usually implies real electoral expectations of those interviewed, as the electorate had made up their mind regarding their voting decision. In particular, the questionnaire included questions related to: non-policy oriented motives, the intended vote choice, policy issues and retrospective motives. In the case of Germany and Senegal, we also used data that contained information regarding the voting decision, as well as all three voting motives. For these countries the data was collected in 2018 and 2019 respectively. Then, to include the USA and Chile in the analysis, data from the AmericasBarometer

2018/19 round of surveys was used. These countries were chosen as case study countries, because we considered that it was interesting to carry out a comparative analysis that included countries with different levels of development, education and political knowledge but, at the same time, were all considered democracies with multi-party systems.

Figure 1.1.: Voter Behavior and the Impact on Government Performance



According to the voter theory and as shown in figure 1.1, for the analysis of voting behavior, we consider the three components or voting motives: policy oriented (P), retrospective oriented (R) and non-policy oriented (NP). The motive of policy-oriented voting goes back to the classic theory of the spatial voting model developed by Davis et al. (1970) and Enelow and Hinich (1984), where the utility function is calculated as the weighted distance between a voter's preferred position on a specific issue and the policy position of the party/candidate on the same issue. For the retrospective voting motive, we follow the approach of Fiorina (1981), who implies that voters can evaluate the past performance of the incumbent, their competence and popularity, based on measures of well-being realized during the presidential term. In this sense, voters use observable welfare indicators, such as income growth, which is determined by implemented governmental policies. As regards the non-policy component, many researches have studied its influence on voting behavior. For example, Erikson and Romero (1990), Adams (2001) and Adams et al. (2005) included party identification in the voter's utility function, since it usually works as an intensifier

in the favoritism towards a candidate from the preferred political party. Additionally, the specific characteristics of the candidates, such as, appearance and charisma may also be relevant (Schofield, 2007). Furthermore, voters are frequently swayed by the campaign spending or financial resources provided by international donor organizations like development aid. These are often granted on the condition that certain policies are implemented (Dollar and Easterly, 1999). In addition, we consider other aspects that voters might also apply to estimate their utility, like their socio-demographic characteristics, their approval of the work of the president as a measurement of perception of the performance of the government and their level of trust on the incumbent. Due to the fact that democratically elected politicians seek to maximize their vote share, the understanding of inefficient and biased policy implementation has to be based on voting behavior analysis and, nowadays, the probabilistic voter model is the workhorse model applied in voter studies. In this sense, with the variables from the three components previously described, we estimate probabilistic voter models. They are estimated with Discrete Choice models, since they explain choices between two or more alternatives. Hence, in the context of political science, Discrete Choice models are exceptionally suitable, as researchers are more interested in the way results were achieved rather than the actual results. Furthermore, we apply two different approaches. First, the Latent Class Model (LCM) to allow for heterogeneity. The LCM consists of two sub-models, the model for choices that determines which alternative is chosen and the model for classes that defines class membership. Second, the Nested Multinomial Logit Model (NML) that was first proposed by McFadden (1977) as a generalization of the multinomial logit model based on the idea that some alternatives may be joined in several groups or nests. More precisely, we combine the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on the approach of Croissant (2012) and Greene (2008). Following Thurner and Eymann (2000) the proposed model considers the simultaneous choice among the political parties and the option abstention. With the results of these estimations, we calculated marginal and relative marginal effects to measure the relative importance of the three voting motives. Finally, the relative marginal effects provide the necessary information to derive and calculate indices to measure government performance. More precisely, indices for government accountability and government capture are estimated. In other words, we are able to empirically analyze how voting behavior incentives the government to develop efficient policies adapted to the needs of the country.

The theoretical and empirical contributions of this cumulative dissertation to the literature on voting behavior are diverse. First, the inclusion of abstention as an alternative in the electoral decision process of voters. Although abstention has previously been considered in the study of voting behavior, we also analyze the impact of the non-voting decision in the political process. In other words, we look if abstainers have the power to incentive governments to perform better. In addition, we apply difference approaches to examine voting behavior in Honduras. For instance, we estimated different model specifications using the Latent Class approach, as well as the Nested Multinomial Logit approach. Furthermore, we perform a series of comparative analysis where we considered developing and developed countries, as well as countries with different education and political knowledge levels. Moreover, we study the case of corruption in Honduras, not only to see its influence on the behavior of voters, but also to see its impact on the performance of the government.

The structure of this thesis is as follows: In the second part of this chapter we present a summary of each of the papers that comprises this cumulative dissertation. In chapter two, after the introduction and summary, an empirical comparative analysis for Honduras and Germany is presented. More specifically, we describe the voting behavior and its implications on government performance in both countries. A case of corruption in Honduras and its influence on the electoral decision of voters is reviewed in chapter three. To further explain the role of abstainers in the policy making process, in chapter four we show a comparative empirical analysis between a developing and a developed country. More precisely, we study the importance of abstainers and their “power” to incentive the government to choose and implement efficient policies. Additionally, in chapter five we review the role of non-voters in presidential elections in Senegal and Honduras, both democracies with multi-party systems. The last research paper is presented in chapter six, where we evaluate the importance of the level of education and information of voters in the political process. To this end, we compared three American Countries, namely Honduras, Chile and the United States of America. In chapter seven we present a general conclusion of the whole research project, as well as individual conclusions for each paper. In addition, a German version of the summaries of each paper can be found in chapter eight. Finally, in the appendix we explain in detail the methodology we used and developed to study voting behavior and government performance.

1.2. Summary

1.2.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe

Honduras, like many developing countries, faces a big challenge nowadays: to get households out of extreme poverty and to decrease undernutrition. According to The World Bank (2020), almost half of the population (48.3%) lived below the national poverty line in 2018. Moreover, the Global Agriculture and Food Security Program (2018) reported that almost half of the population is rural and the agricultural sector generates the majority of rural employment, but productivity is low. On the other hand, in Germany only 14.8% of the population lived below the national poverty line in 2018 (The World Bank, 2018). Also, according to The World Bank (2021b), in this developed country, only 1.21% of the people of working age are employed in the agriculture sector and is considered one of the largest producers in the European Union (BMEL, 2020). Efficient policies are necessary to reduce poverty and promote economic growth. In political theory, elections are considered a mechanism to guarantee high government performance, since they should reflect the interests of the whole society and serve to control the government. However, in reality, electoral competition often leads to the implementation of distorted policies and policy failure due to low government accountability and high government capture. Since elected politicians seek to maximize their vote share, the understanding of inefficient and biased policies has to be based on voting behavior analysis and, nowadays, the probabilistic voter model is the workhorse model applied in voter studies.

Some research studies suggest that many voters based their electoral decision mainly on non-policy factors and, therefore, are controlled by interest groups through campaign spending (Magee et al., 1989; Potters et al., 1997; Austen-Smith, 1987; Baron, 1994; Coate, 2004). In addition, Lazarsfeld et al. (1968) and Lipset and Rokkan (1967) followed the socio-structural approach and argued that voters' economic status, religion and age, for example, have an influence on their voting decision. In these scenarios, there would not be any incentive for the elected politicians to serve the needs and desires of the electorate, resulting in low government performance. Other researchers explained that voters consider different factors before they choose a party or candidate. For instance, the classical theory of Downs (1957) assumed that citizens evaluate candidates based on their announced party platforms (i.e. policy oriented). Moreover, Grossman and Helpman (1996) suggested that

voters base their electoral decision on both, policy oriented factors and non-policy oriented factors, according to their level of information on politics. Henning et al. (2018) and Seide (2014) combined the analysis of voting behavior and government performance and included the retrospective component as a voting motive. It is common knowledge that countries, even if they are democracies, vary with respect to the incentives politicians have to provide public services, promote economic growth and reduce poverty. It is often assumed that voters in developing countries are less educated and less politically informed, which leads to lower government performance. Pande (2011) explained that limited information is an explanation for low-quality politicians in low-income democracies. Further, Bardhan and Mookherjee (2000) argue that biased policies arise due to the existence of uninformed voters. In addition, Arnold (2011) suggests that in Latin American countries corruption is often underestimated, as most corrupt acts are hidden and unreported. In consequence, people make their political decision based on limited information, resulting in low government accountability. On the other hand, Carmines and Stimson (1980) explain that issue voters are better educated, better informed and more active in politics. Further, Schachter (1995) suggests that proper education of the citizens and information exchange are required to reach an efficient and responsive government. In this regard, we were interested in determining if there is a significant difference in voting behavior and its impact on government performance between the two countries given their level of development.

To this end, we developed a probabilistic voter model including a Latent Class approach to allow heterogeneity. In addition, we calculated relative marginal effects to measure the relative importance of the three voting components. Then, to understand the impact of voting behavior on government performance, we developed indices to estimate government accountability and government capture. To carry out the analysis, we used voter survey data from Honduras and Germany. The questionnaires included information regarding demographic statistics, non-policy oriented motive, voting decision, policy positions and the assessment of the economic situation, as well as personal living conditions.

The results show that all voting motives are significant determinants of the voting decision in Honduras and Germany. The relative importance of the non-policy component is higher in the developing country, which contributes to a low government accountability index. This implies that the function of elections of holding accountable the government is not really fulfilled. Thus, the government does not have incentives to implement efficient policies that are necessary to promote economic growth, get households out of poverty and

decrease undernutrition. On the other hand, as expected the government accountability index is higher in the developed country, where the level of education is also higher and people choose more policy oriented. This means that in Germany voters do play a more important role in the political process. Regarding the government capture, we found that the indices for education level go in opposite directions. In the case of Honduras, uneducated voters have a higher political weight, whereas in Germany, the educated people are the ones with a higher political weight. This implies that the government seeking for reelection has higher incentives to implement policies that benefit these social groups. We concluded that, the results are consistent with the theory and literature in the sense that more educated and better informed voters choose more policy and retrospectively oriented (i.e. in developed countries). However, it is also important to highlight that the non-policy component was always the most important one regardless of the level of development of the country. This suggests that, a persistence of inefficient and biased policies can be observed in both, industrialized and developing countries, due to a lack of incentives from the governments.

1.2.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras

Corruption, also known as abuse of power, refers to the misuse by public officials of the authority entrusted to them in order to obtain personal benefits that goes against the law and moral principles. In the particular case of Honduras, the problem of corruption is such that people often refer to it as the “operating system” (Chayes, 2017; Lehmann, 2018), since it comprises sophisticated networks that seek to maximize the benefits of their elite members. This Central American country is considered nowadays one of the most corrupt countries in the world. According to Transparency International (2021), the current Corruption Perceptions Index (CPI) of Honduras is 24 out of 100 points so it is ranked in the position 157 out of a total of 180 countries. On January 19, 2016 the Organization of American States and the Government of Honduras signed an agreement to establish the Mission to Support the Fight against Corruption and Impunity in Honduras (also known as MACCIH). Nonetheless, after its four-year mandate expired, Honduran President Juan Orlando Hernández did not allow the renewal of the mandate so that operations had to cease on January 2020. In addition, the Honduras’ Congress approved

a highly controversial new penal code, which reduced corruption sentences. In this sense, Azfar et al. (2001) indicate that corruption harms the economic development of countries and Rollón and Álvarez García (2019) conclude that it impacts the quality of democracies and the development of Latin American countries, as well as the public opinion, which in turn increases mistrust in the system. According to Millares (2020), in developing countries it is easier for corruption to spread, weakening the democratic structure. McFerrin (2017) argues that corruption is one of the causes of poverty in Honduras. In addition, corruption is one of the reasons many Hondurans live in fear, as this has contributed to police brutality and high murder rates (Gibson, 2020). Furthermore, in this developing country, 48.3% of the population is living below the national poverty line (The World Bank, 2018). It is also considered one of the most violent places in the world with a rate of 38.9 victims of intentional homicide per 100,000 population in 2018, whereas the world rate was only 5.8 (United Nations Office on Drugs and Crime, 2018). Corrupt political institutions, poverty and violence in Honduras encourage migration to the United States (USA). Trautmann and Munoz (2019) explain that some of the causes of the Honduran exodus are a high poverty rate, a corrupt political system and a failed security policy. Similarly, Human Rights Watch (2021) suggests that many people are pushed to leave the country due to the violent organized crime.

Many studies argue that a lack of trust in the system and political dissatisfaction can cause electoral abstentionism (James Alt and Fox, 1977; Sabucedo and Cramer, 1991; Ragsdale and Rusk, 1993; Narud and Valen, 1996; Vilajosana, 1999; Cebula, 2005; Damore et al., 2011). Regarding corruption, Stockemer et al. (2012), Stockemer (2013) and CAILLIER (2010) found that citizens are more likely to abstain as political corruption increases. KOSTADINOVA (2009) suggests that when voters perceive the existence of corruption, faith in the democratic process decreases and so does the voting level. In addition, we could assume that most of the people who illegally immigrate to the USA are not able to participate in Honduran electoral processes. Consequently, it could be said that poverty, violence and corruption cause the migration of voters, which in turn decreases voter turnout in Honduras. Electoral competition in democratic systems should promote high government performance, however, in reality, electoral competition often leads to policy failure. This is because the development of policies is often inefficient and biased in favor of special interests due to a lack of incentives from the government. In addition, even in countries with well functioning democracies, not all the people who have the right to vote decide to

cast a vote. Many authors have analyzed abstention in electoral processes. Downs (1957) explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Later, Riker and Ordeshook (1973) conceptualized the citizen's choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Further, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention. In this paper, we analyzed the influence of political corruption on Hondurans' decision to participate in electoral processes. Moreover, we studied the impact of this decision on government performance. In this sense, an understanding of the behavior of voters is crucial to recognize what incentive politicians to choose the policies that better match the specific country needs.

In this regard, we estimated a nested multinomial logit model that was first proposed by McFadden (1977) based on the idea that some alternatives may be joined in several nests. More precisely, we aimed to combine the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on the approach of Croissant (2012) and Greene (2008). Then, we calculated marginal, as well as relative marginal effects and developed accountability and capture indices to study the impact of voters electoral decision on the performance of the government. For the empirical application we used two sources of data that were collected in Honduras. First, data from a baseline household survey with detailed information regarding the socioeconomic and demographic characteristics of the households. Second, data from a voter survey to look at beliefs and political preferences of households. In particular, non-policy oriented motives, the intended vote choice, policy issues and retrospective motives.

In the optimal models estimated, all three components (policy, non-policy and retrospective) had a significant influence on the voting decision. It was interesting to see that the less satisfied voters were with the current economic condition of Honduras and their own living condition, the higher was the probability to either abstain or vote for an opposition party. Similarly, the models show that the less voters trust the president and the electoral system the lower is the probability of supporting the incumbent. We also found that, when voters lack confidence in state institutions and perceive the existence of corruption, the probabilities of participating in the electoral process are lower. In addition, we observed that those who vote choose more policy and non-policy oriented, whereas those

who decide to abstain choose more retrospectively oriented. Furthermore, we noticed that the accountability index is higher for those who decide not to cast a vote, which implies that they play a more important role in the political process. Moreover, people who lack confidence in state institutions and perceive the existence of corruption, and consequently abstain, had a higher political weight. This implies that non-voters might have the “power” to incentive the government to choose and implement more efficient policies if they decided to cast a vote. In conclusion, we could say that, not only voting for an opposition party, but also abstaining can be considered a way of punishing the bad performance of the incumbent, as well as expressing dissatisfaction with corrupt state institutions.

1.2.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany

Voting is the most crucial mechanism that establishes legitimacy of political agents’ actions in representative democratic systems. In this sense, governments should have the necessary incentives to implement policies that increase the welfare of the society and satisfy citizens’ preferences. Nonetheless, electoral competition often leads to policy failure due to low government accountability and high government capture. In addition, not all people with the right to vote in an election decide to cast a vote. Some people consider voting as a civic duty, while others think that voting is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. According to Solijonov (2016), the global average voter turnout has decreased significantly over the past decades. In Honduras, the level of abstention has increased during the past years and one of the reasons seems to be that many people do not trust the political parties or candidates. Also, the country has experienced a massive international migration. Similarly, as reported by the Bundeswahlleiter (2019) and with the exception of the 2017 elections, in Germany the voter turnout has been decreasing. Apparently, the unemployed and those who are disappointed with their old favorite parties are less motivated to participate. It is also important to highlight that abstention levels differ in developed and developing countries. In this regard, Stockemer (2015) found that developed countries have a higher citizens’ participations at elections than developing countries. Furthermore, Solijonov (2016) argued that in developed countries people are

more informed and engaged in political processes, while economic adversity negatively affects political participation in the least developed countries.

Voting implies a benefit (when the voter changes the outcome to what he desires) and a cost (like time, money and information) to the voter. In this sense, Kirchgässner (1992) argues that following social (moral) rules, when they are deviated from the self-interest, implies a cost that is rather low in voting decision. Additionally, Grofman (1995) shows that the correlation between turnout and closeness in the elections can be positive or negative. This depends on the way voters form their expectations regarding whether their vote will be decisive or not. However, Myerson (1997) found that the expected turnout cannot be large, if the act of voting is costly for all voters. On the contrary, Blais (2000) concluded that people who are aware that the probability of their vote being decisive is tiny should rationally abstain. However, most people vote, and most of them vote regularly. Many authors have analyzed abstention in electoral processes. Downs (1957) explained that citizens will abstain if the party differential is equal to zero. Riker and Ordeshook (1968) developed a calculus in which it is rational for those who vote to do so and it is equally rational for those who do not vote not to do so. Later, Riker and Ordeshook (1973) conceptualized the citizen's choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Furthermore, Adams et al. (2006) incorporated alienation from the candidates and indifference between the candidates as motivations for citizens to refrain from voting. Further, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention. The reasons for electoral abstentionism are very diverse. Feddersen and Pesendorfer (1999) analyzed voters with asymmetric information and showed that more informed citizens are more likely to vote than their counterparts. Furthermore, Karklins (1986) showed that non-voting is correlated with high interest in politics when studying voter abstention in noncompetitive balloting. Regarding the importance of abstainers from a political science point of view, Vilajosana (1999) pointed out that abstention can lead to the maintenance and improvement of the democratic system or it could end the democratic regime. Furthermore, some democratic theorists like Barber (2004) and Pateman (1970) explain that participation is essential for democracy and others suggest that high levels of abstention undermine the legitimacy of democracy (Cavanagh (1981) and Salisbury (1975)). Also, Kooreman and Haan (2003), Adachi (2004) and Palfrey and Rosenthal (1983) explain that majority group have greater incentives to free-ride, whereas those in the

minority group are more encouraged to vote. In political science it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored. In this sense, Quaille Hill and Leighley (1992) and Leighley and Nagler (1992) provided evidence that electoral participation is important in the formulation of social welfare policies. Also, Uhlaner (1989) argued that groups of voters, who share political interests, motivate candidates to shift their position in the policy space towards the preferred position of the members of this group. Moreover, the theory of rational voting (Downs, 1957) assumes that political parties choose the policy position that maximizes their expected vote share. Additionally, Burnham and A James (1987) concluded that “if you don’t vote, you don’t count” and, according to Wattenberg (2002), “politicians are not fools; they know who their customers are”, therefore they should not worry about nonvoters. In this sense, the purpose of this paper was to identify the factors that drive people’s decision to either vote or abstain. Then, we wanted to analyze the impact of this decision on the performance of the government in both countries. More specifically, we were looking to determine the importance of abstainers in the policy making process and identify if there was a difference in the role that non-voters play in developed and developing countries.

To this end, we estimated a series of probabilistic voter models applying a latent class approach and using data from Honduras and Germany. Then, to assess the relative importance of the three voting motives we calculated relative marginal effects of each component for the incumbent and the alternative abstention for both countries. Moreover, to evaluate whether the governments act accountable and to measure the political weight of certain groups of the electorate, government performance indicators were developed.

We found that, in both countries, the three voting components are significant factors when the electorate makes their decision to either vote or abstain, as well as which political party to choose. Nonetheless, the importance of the different voting motives varies significantly. In Honduras, those who abstain choose more policy and non-policy oriented than those who decide to support the incumbent party, whereas in Germany, those who abstain choose more retrospectively oriented. As expected, government accountability indices resulted higher in the developed country. We also found that those who abstain have a significantly higher government accountability index when compared with those who support the incumbents. In addition, in Honduras, abstainers capture all voters, whereas in Germany, non-voters are being captured by those who decide to participate in the elec-

tions. We conclude that, for the developed country, our results support the literature that abstainers should be ignored since they do not seem to respond to policies as they showed a low political weight. Nonetheless, in the case of the developing country, our results contradicted the literature. They demonstrated that, in this country, non-voters seem to have the “power” to incentive the government to choose and implement more efficient policies if they decided to cast a vote as they have a higher political weight than voters. Hence, from the incumbents’ perspective, if non-voters have a high political weight, it is clear that governments gain with high levels of abstention.

1.2.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America

To reduce poverty and undernutrition, as well as increase economic growth in a country, the quality of governance is important as it can guarantee the implementation of efficient policies. To achieve this, electoral competition should reflect the interests of the whole society and serve to control the government. However, in reality, electoral competition often leads to policy failure. Even in countries with well functioning democracies, not all people with the right to vote in a presidential election decide to cast a vote. Some people consider voting as a civic duty while others think that voting is often inconvenient, time-consuming and may even seem pointless. According to Solijonov (2016), the global average voter turnout has decreased significantly over the past decades. These statements correspond to the situation in Honduras and Senegal.

Although important theoretical work has been published regarding the impact of voter behavior on government performance and some empirical evidence concerning such impact have been carried out, the incorporation of the aspects of abstention/participation in voter behavior study is not very common. Downs (1957) explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Later, Riker and Ordeshook (1968, 1973) included an additional component in the utility function that contains positive effects on the expected utility of voting. Thus, they concluded that “the behavior of most people can be described by a theory of rational decision-making”. They also explained that voters first choose a preferred candidate and then decide to vote or not. Further, Thurner and Eymann (2000) and Plane and Gershtenson (2004) have also studied, by means of spatial models of

voting, indifference and alienation towards the candidate or party as reasons affecting the individual probability of voting. Adams et al. (2006) also incorporated alienation from the candidates and indifference between the candidates as motivations for citizens to refrain from voting. They concluded that this decision is largely policy-based as it is affected by their evaluations of the candidates' policies. From a political science point of view voting is considered the most important act of participation in a democracy. Lijphart (1997) argues that low voter turnout is a serious democratic problem because it causes inequality as politicians give more importance to the interests of those who decide to cast a vote. Similarly, Hooghe and Pelleriaux (1998) demonstrated that abolishing compulsory voting in Belgium would lead to more inequality. According to Stockemer and Blais (2019), in national and European elections, abstainers have low levels of knowledge and interest in politics, as well as low sense of civic duty. Pacek and Radcliff (1995) argued that turnout rates may have profound policy consequences. Furthermore, Hicks and Swank (1992) explained that electoral turnout is important for the share of national incomes that is spent on social welfare programs. Finally, Downs (1957) assumes that political parties seek to choose the policy position that maximizes their expected vote share. In this regard, Burnham and A James (1987) and Wattenberg (2002) argue that politicians should not worry about nonvoters.

The purpose of this research study is to evaluate the importance of abstainers in the policy making process in Africa and Latin America. More specifically, we are looking to determine whether non-voters could motivate the governments to design and implement efficient policies. To this end we estimated nested multinomial logit models including the alternative Abstention in the choice set. We also developed indices for government performance based on calculated relative marginal effects. Then, data from Honduras and Senegal was used for the empirical application.

Our results suggest that for both countries, policy issues, as well as variables related to retrospective and non-policy voting are important when making an electoral decision. We also found that, less informed voters are less motivated to participate in electoral processes. The evidence also shows that non-voters tend to choose more policy and non-policy oriented than those who voted for the incumbent parties. Further, despite the fact that the accountability indexes are quite low in both countries, those who do not support the incumbent hold the government more accountable. Therefore, if governments fail to achieve the goals that they committed to, these voters are more likely to abstain or choose an op-

position party to punish their bad performance. Moreover, abstainers and non-government voters capture those who decided to support the incumbent parties. This implies, that they have a higher political weight and therefore, could put pressure on the governments to choose and implement better policies if they decided to vote. In other words, abstainers can definitely develop the power to generate a higher government performance as they are clearly responsive to policies. In conclusion, we can no longer affirm that people decide to abstain just because the act of voting is inconvenient and time-consuming, or that they decide to cast a vote because it is merely a civic duty. In these two developing countries, there are other factors that voters take into account when they decide to either vote or abstain, like their level of satisfaction with the performance of the president. Also, in both countries, abstainers are important for the political process and, therefore should be taken into account. In other words, contrary to the many theoretical works that have been published in political science explaining the lack of importance of abstainers, our results demonstrate that they can actually develop power to incentive a higher performance of the government.

1.2.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

Democracy is a political system that gives people the right to choose and control their government leaders. Although it is not perfect, it is often considered the best political system, since it is a just and convenient form of government allowing the population to live in harmony. However, not all the people who have the legal right to cast a vote at an election decide to participate. The reasons for electoral abstentionism are very diverse. There are a series of sociodemographic, psychological and political factors that could explain this phenomenon. Degan and Merlo (2011) found that older and more educated people are on average more likely to have a higher sense of civic duty than the younger and less educated individuals. Moreover, Feddersen and Pesendorfer (1999) analyzed voters with asymmetric information and showed that more informed citizens are more likely to vote than their less informed counterparts. Furthermore, Plane and Gershtenson (2004) found that higher levels of political interest have positive effects on the likelihood of voting. Many consider that electoral abstention diminishes the strength of a country's democracy and undermines the legitimacy of elected leaders. For example, Lijphart (1997) argues that low voter turnout is a serious democratic problem because it causes inequality as

politicians give more importance to the interests of the voters. On the other hand, a high number of abstentionists does not necessarily imply any danger to democracy. Examples of countries that have a high level of abstention and are no less democratic are Canada, Ireland and Switzerland. In addition, access to education and information are also important to achieve a fair society. More specifically, well educated and well informed voters tend to choose more policy oriented, which in turn should result in a better performance of the government. In this sense, Hochschild (2010) argues that a good democracy requires informed and well educated voters. Moreover, Carmines and Stimson (1980) explain that issue voters are better educated, better informed and more active in politics. Further, Schachter (1995) suggests that proper education of the citizens and information exchange are required to reach an efficient and responsive government. According to Grossman and Helpman (1996), voters base their electoral decision on policy oriented, as well as non-policy oriented factors, given their level of information on politics. Additionally, Bardhan and Mookherjee (2000) explain informed voters are politically aware and choose based on the utility they expect to obtain, whereas uninformed voters are influenced by political campaign causing policy biases (Government Capture). More recently, Pande (2011) explained that limited information is an explanation for low-quality politicians in low-income democracies. Also, Gavazza et al. (2018) found that information plays an important role in electoral participation, government policies and government size.

In political theory, responsible actions by the government can only take place if voters decide politically and retrospectively oriented. Akarca and Tansel (2007) suggest that the electorate considers the economic performance of the incumbent party and, if it is poor, it benefits the opposition. Lewis-Beck and Nadeau (2000) and Fraile and Lewis-Beck (2013) found that economic issues play a significant role in the vote choice. Also, Shabad and Slomczynski (2011) argue that voters take into account the economic and political performance when deciding whether to reward or punish the incumbent. Additionally, Enkelmann (2013) showed that voters take into account the national and personal economic situation when evaluation the government. The results of the study of Soederlund (2008) suggest that voters often value the overall competence of politicians and parties when they make their electoral decision. Some researchers argue that information is important for retrospective voting in democracies. Duch (2001) propose that economic voting is higher, when the levels of information on the government increase. Stiers (2019) found that there is a larger difference between voters with different levels of political information. Other

authors, on the other hand, explain that performance voting also happens among less informed individuals. For example, Fortunato and Stevenson (2013) argue that unsophisticated voters cast economic votes at high rates. Furthermore, Collier et al. (1987) suggest that, in fact, “retrospective voting reduces information costs”. Economic voting has been studied in the context of developed, as well as developing countries. First, Fiorina (1978) conclude that in the American national elections citizens vote for or against the incumbent president’s party based on their personal economic condition. Then, Happy (1989) studied the retrospective economic voting in Canada and showed that income stability and income growth have an impact on incumbency voting. Later, Johnston and Pattie (2001) analyzed retrospective voting in Great Britain and found that negative evaluations of the government policy decreases the probability of an elector voting for the incumbent party. Furthermore, Lewis-Beck (1986) studied survey data from Britain, France, Germany and Italy and concluded that economic voting is clear and consistent. Regarding the developing countries, Oganessian (2014) shows that voters in these countries do take the economy into account when making their electoral decision. Singer and Carlin (2013) analyzed 18 Latin American countries and found that, in general, voters consider more the national economy than the personal finances except in the least developed countries. Lewis-Beck and Ratto (2013) also found that, in Latin America, voters reward or punish the economic performance of governments.

The aim of this research study is to analyze the influence of the level of education, as well as the level of information of the electorate on voter behavior. More precisely, we are interested in determining if better educated and well informed voters choose more policy and retrospectively oriented, which in turn results in better government performance. Furthermore, we are looking to determine the role of abstainers in the political process. We also want to identify voting behavior differences between developed and developing countries. To this end, we estimated probabilistic voter models and government performance indices for Honduras (developing country with low education level), Chile (developing country with high education level) and the USA (developed country with high education level). For our comparative empirical analysis we decided to use data from the AmericasBarometer 2018/19 round of surveys (LAPOP).

The estimated models determined that all three voting components are significant factors that influence voting behavior in Honduras, Chile and the USA. However, their importance vary significantly being the non-policy motive the most important in all countries.

Nonetheless, as expected, the retrospective and the policy motives are higher in the USA. In the case of Chile and Honduras, the policy component is higher in the former, whereas the retrospective component is higher in the latter. This demonstrates that voters do not need to be well educated or well informed in order to make their electoral decision more retrospectively oriented. We also observed that, in general, the informed and educated voters choose more policy oriented. Regarding the retrospective voting, in both developing countries, it is higher for the uneducated and uninformed people, whereas in the USA it is higher the educated and informed voters. Abstainers, when compared to voters, choose less policy oriented, but in the developing countries, they make their decision more retrospectively oriented. As a result, the highest government accountability index belongs to the USA, while the lowest can be seen in Honduras. This low accountability of the Honduran government with regard to its electorate suggests that, voting does not play a very important role in its political process. On the other hand, in the developed country, the higher accountability index indicates that the USA government has a greater incentive to consider voters in the political process, rather than giving greater importance to lobbying activities and the intrinsic interests of the government. Furthermore, we found that in Chile and in the USA informed and educated voters have a higher accountability index than their counterparts. Nonetheless, it is surprising to see that, in the case of Honduras, the uneducated and uninformed people make the government more accountable. Regarding abstainers, as anticipated, it is evident that in the highly educated countries, non-voters do not play a very important role in the political processes of their respective countries. Nevertheless, it is important to highlight that in Honduras, due to the higher importance that abstainers give to the retrospective component, they can make the government more accountable than voters. As regards the government capture indices, in general, those who have a higher level of education, are more informed, have a greater interest in politics and a greater understanding of political issues, are the ones with a higher political weight. This implies that governments seeking for reelection have higher incentives to implement policies that benefits these social groups at the expense of their counterparts. In the case of abstainers, as predicted, the lower importance they give to policy issues when they make their decision, results in a lower political weight and, therefore are they being captured by voters. From our results, we can conclude that in both, developed and developing countries, better educated and well-informed people, as well as those who decide to participate in elections choose more policy oriented and

have a higher political weight than their counterparts. Nonetheless, retrospective voting can come from the educated, informed and voters, as well as from the uneducated, un-informed and abstainers. This raises a question: “Is retrospective voting good or bad?”. When voters choose retrospectively oriented, the governmental party might develop and implement popular policies that will increase their chances of being elected, but that will not necessarily be the more efficient policies that better match the specific country needs. Also, the cycle of policies has to be considered, i.e. some efficient or good policies deliver results only in the long run and not before the next electoral process. This implies that governmental parties seeking for reelection might have higher incentives to implement less efficient policies that deliver results in the near future and before the next elections. In this sense, an understanding of the circumstances under which retrospective voting can translate into higher government performance and when it fails to do so is also important. Thus, if voters are aware of policy issues and know which policies are best adapted to the needs of the country, policy oriented voting behaviour is better to guarantee a high performance of the government. However, if the government is the one that has a better knowledge of the policies that should be developed and implemented to attend the needs of the country, then a retrospective oriented voting behaviour is better.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uninformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nyland, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinary Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters’ perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.

UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.

UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.

United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.

Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.

Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.

Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.

World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

2. Chapter

Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe

Svetlana Petri, Andrea Lendewig and Christian Henning

Paper prepared to be submitted at the “European Journal of Political Economy”

Abstract

Despite some coups d'état, dictatorships and wars, Honduras and Germany are now considered democracies with multi-party systems. However, in the developing country, a big challenge nowadays is to get households out of poverty and to decrease undernutrition. By contrast, the industrialized country, is one of the largest agricultural producers in the European Union. Efficient policies are necessary to reduce poverty, as well as promote economic growth, and elections are considered a mechanism to guarantee high government performance. In reality, however, countries often face policy failure. Frequently it is assumed that voters in developing countries are less educated, informed and politically aware and, therefore, choose more non-policy oriented, which leads to lower government performance. The objective of this paper is to identify the factors that drive voters electoral decision in both countries and determine the impact of this decision on government performance. To this end, we estimated different Latent Class Models and the results show that all voting motives are significant. In addition, we calculated relative marginal effects and found that the relative importance of the non-policy component was higher in Honduras, which contributed to low government accountability. On the contrary, in Germany, where the level of education is higher, people choose more policy oriented. Regarding the government capture, the indices for the education level go in opposite directions. In Honduras, uneducated voters have a higher political weight, whereas in Germany, the educated people are the ones with a higher political weight. In conclusion, according to our results, in Germany, where people is more educated and probably also more politically aware, voters do play a more important role in the political process than in Honduras. These results are consistent with the theory and literature. However, it is also important to highlight that the non-policy component was always the most important. This suggests that, a persistence of inefficient and biased policies can be observed in both, industrialized and developing countries, due to a lack of incentives from the governments.

2.1. Introduction and Literature Review

Honduras, like many developing countries, faces a big challenge nowadays: to get households out of extreme poverty and to decrease undernutrition. Currently, it is one of the poorest countries in Latin America. According to The World Bank (2020), almost half of the population (48.3%) lived below the national poverty line and 22.9% below the na-

tional extreme poverty line in 2018. Additionally, 16.5% of Hondurans lived on less than US\$1.90 per day (international poverty line) and 50.3% on less than US\$5.50 per day (upper middle-income global poverty line). Furthermore, a third of the population lives near the poverty line and is vulnerable to falling back into poverty, and the middle class accounts for only 17% of the population. Moreover, the Global Agriculture and Food Security Program (2018) reported that almost half of the population is rural and the agricultural sector generates the majority of rural employment. For many, agriculture is the primary source of income and food security. However, productivity is low and the country is frequently affected by extreme weather events. This has led to the fact that one in four children are undernourished and stunted.

On the other hand, in Germany only 14.8% of the population lived below the national poverty line in 2018 (The World Bank, 2018) and 0% of Germans lived on less than US\$1.90 a day in 2016 (The World Bank, 2016a). Moreover, according to The World Bank (2021a), this European country works with the international community to reduce poverty and promote food security. Furthermore, Germany is nowadays one of the largest shareholders of the World Bank in order to tackle global challenges that require international cooperation. Also, according to The World Bank (2021b), in Germany, only 1.21% of the people of working age, who were engaged in any activity to produce goods or provide services for pay or profit, are employed in the agriculture sector. This developed country has a strong agricultural sector, where half of the national territory is put to agricultural use, which makes it one of the four largest producers in the European Union (BMEL, 2020). In addition, only 1.7% of German children under 5 years old suffer from stunting (The World Bank, 2016b).

Efficient policies are necessary to reduce poverty and undernutrition, as well as promote economic growth. Accordingly, the quality of governance is important to ensure the development and implementation of such policies. In political theory, elections are considered a fundamental democratic mechanism to guarantee high government performance, since they should reflect the interests of the whole society and serve to control the government. However, in reality, electoral competition often leads to the implementation of distorted policies and low governmental performance (i.e. policy failure) due to low government accountability and high government capture. The former happens when the government lacks incentives to implement efficient policies because they are not being controlled and instead implement policies that are determined by lobbying activities, as well as intrinsic

policy preferences. While the latter occurs when the development of policies is biased as more consideration is given to the political interests of some social groups at the expense of the majority because there is no representativeness of society. Due to the fact that democratically elected politicians seek to maximize their vote share, the understanding of inefficient and biased policy implementation has to be based on voting behavior analysis and, nowadays, the probabilistic voter model is the workhorse model applied in voter studies.

Some research studies suggest that many voters based their electoral decision mainly on non-policy factors and, therefore, are controlled by interest groups through campaign spending. More specifically, Magee et al. (1989), as well as Potters et al. (1997) assumed that campaign spending has a direct effect on voting behavior. Also, Austen-Smith (1987) and Baron (1994) found that candidates benefit interest groups and use campaign contributions to influence voters. Furthermore, Coate (2004) indicates that voters update their beliefs rationally given the information they have received from advertising campaigns. In addition, other authors, like Lazarsfeld et al. (1968) and Lipset and Rokkan (1967) followed the socio-structural approach and argued that voters' economic status, religion, place of residence, profession and age, for example, have an influence on their voting decision. In these scenarios, there would not be any incentive for the elected politicians to serve the needs and desires of the electorate, resulting in policy failure and low government performance.

Other researchers explained that voters consider different factors before they choose a party or candidate. For example, the classical theory of Downs (1957) assumed that citizens evaluate candidates based on their announced party platforms (i.e. policy oriented) and analyzed the decision-making process in two contexts: a world with complete information and a world with limited information. Moreover, Grossman and Helpman (1996) suggested that voters base their electoral decision on both, policy oriented factors, like the candidates' policy positions, and non-policy oriented factors, like the candidates' appearance or ethnicity, according to their level of information on politics. Thus, if the electorate votes more non-policy oriented and less policy oriented, then the incentive of the government to implement policies that benefit the voters is very low. In this sense, Keefer and Khemani (2005) and Bardhan and Mookherjee (2002) addressed the impact of voting behavior on government performance and argued that less electoral competition implies incentives for the government to implement policies that do not correspond to the

needs and desires of the majority of society. Henning et al. (2018) and Seide (2014) also combined the analysis of voting behavior and government performance and included the retrospective component as a voting motive.

It is common knowledge that countries, even if they are democracies, vary with respect to the incentives politicians have to provide public services, promote economic growth and reduce poverty. In this sense, Keefer and Khemani (2005) analyzed the impact of incomplete information of voters, social polarization and the lack of credible promises by politicians, as factors that explain imperfections in political markets. Regarding information asymmetries, Baron (1994) distinguishes between informed and uninformed voters, where the former ones tend to choose policy oriented and the latter ones make their decision based on party loyalties and ideologies because they are not able to assess politicians adequately due to the lack of information. Further, Bardhan and Mookherjee (2002) assume that this voter's loyalty increases government capture and reduces electoral competition, which in turn decreases government accountability. Therefore, the analysis of voting behavior is important to understand the role voters play in the political process and the influence they have to incentive governments to develop and implement efficient policies.

It is often assumed that voters in developed countries are on average more educated, informed and political aware and, therefore, choose more policy oriented. On the contrary, people in developing countries are usually less educated and less informed, which leads to lower government performance. Pande (2011) explained that limited information is an explanation for low-quality politicians in low-income democracies. Therefore, information about the political process and politician performance improves electoral accountability. Further, Bardhan and Mookherjee (2000) argue that policy biases or government capture by special-interest groups arises due to the existence of uninformed voters. In addition, corruption, which reduces the efficiency of government performance, is one of the most important problems faced by Latin American countries. In this sense, Arnold (2011) suggests that in these countries corruption is often underestimated, as most corrupt acts are hidden and unreported. In consequence, people make their political decision based on the limited information that is available resulting, in many cases, in low government accountability. On the other hand, literature on voter behavior often suggests that well educated and well informed voters tend to choose more policy oriented, which in turn should result in a better performance of the government. In this sense, Hochschild (2010) studied the United States and argued that a good democracy requires informed and well

educated voters. Moreover, Carmines and Stimson (1980) explain that issue voters are better educated, better informed and more active in politics than non-issue voters. Further, Schachter (1995) suggests that proper education of the citizens and information exchange are required to reach an efficient and responsive government.

Although many authors have analyzed voting behavior and government performance, comparative analysis between developed and developing countries have been neglected. In this regard, the objective of this paper is to identify the factors that drive voters electoral decision in Honduras, as well as Germany and determine the impact of this decision on government performance. More precisely, we are interested in determining if there is a significant difference in the relative importance of the voting motives between the two countries given their level of development. To this end, we first developed a probabilistic voter model with a latent class approach to allow heterogeneity. Additionally, we analyzed and prepared the datasets that were going to be used for the estimations. Then, we empirically tested our model by estimating different model specifications, assessed the relative importance of the different voting motives and calculated government accountability and government capture indices to measure government performance. The results and conclusions are presented at the end of this research paper.

2.2. Democracy and Party Systems in Honduras and Germany

2.2.1. Honduras

In Honduras, democracy has existed since its independence from Spain in 1821. Slavery was then abolished and prohibited and all citizens of legal age were eligible to vote. Ever since, democracy has been the form of government. Despite some interruptions, due to coups d'état and dictatorships, the constitutional order was always reestablished and the democratic order always returned.

Nowadays, the form of government is republican, democratic and representative. It is exercised by three powers: Legislative, Executive and Judicial, which are complementary and independent from each other. The Executive Power comprises the President and 3 Presidential Designates jointly elected, directly by the people and by simple majority of votes. The presidential term is four years and one re-election is now allowed. The electoral processes in Honduras are organized, coordinated and supervised by the Supreme Electoral Tribunal of Honduras (TSE). Two elections are held: primary elections, where political

parties choose their candidates, and general elections, where the President, Deputies to the National Congress, Deputies to the Central American Parliament, Mayors and other political office holders are elected.

Through the years, Honduras has had various political parties. There are currently 10, where the two traditional and oldest ones, Partido Liberal de Honduras - PLH (1891) and Partido Nacional de Honduras - PNH (1902), predominated strongly and maintained what was considered a two-party system for many years. However, in the 2013 general elections, a newly created party (Partido Libertad y Refundación - LIBRE (2011)) came second, turning it into a multi-party system. Moreover, for the general elections of 2017, the coalition Alianza de Oposición was created to compete against the incumbent. The coalition was made up of the party LIBRE and the Partido Innovación y Unidad Social Demócrata - PINU-SD (1968), who obtained second place in the elections, surpassing one of the oldest and traditional parties PLH.

2.2.2. Germany

After decades of dictatorship, war and confusion, in 1949 the Basic Law or Constitution of the Federal Republic of Germany (Grundgesetz) was approved and the German Federal Parliament (Bundestag) met for the first time in Bonn. Since then Germany is considered a parliamentary democracy because the head of government, that is, the federal chancellor, is directly elected by the parliament.

Germany's political system is federal. Elections are held primarily as proportional elections and coalitions of parties are generally necessary to form a government. The Chancellor elected by the Bundestag determines the guidelines of national and foreign policy at the federal level and proposes the federal ministers. Federal institutions and the division of tasks between the federal and state governments are regulated by the Grundgesetz. The Federal Constitutional Court supervises compliance with this law. The federal states that conform Germany have their own representation (Bundesrat) which, together with the Bundestag, participates in the legislation. In the federal elections of Germany, the deputies of the Bundestag are elected for a period of four years, who in turn elect the chancellor for the same period.

The Federal Republic of Germany has also a multi-party system. In the current legislature, there are six political forces with representation in the Bundestag: the UNION, which includes the Christlich-Demokratische Union - CDU (1945) and the Christlich-

Soziale Union - CSU (1945), which only exists in Bavaria; Sozialdemokratische Partei Deutschlands - SPD (1863); Alternative für Deutschland - AfD (2013); Freie Demokratische Partei - FDP (1948); Die Linke (2007), which is a left party; Bündnis 90/Die Grünen (1980), which is the environmentalist and left-wing liberal party. The current government is made up of a "grand coalition" that includes the political parties CDU/CSU and the SPD.

2.3. Theory of Voting Behavior and Government Performance

2.3.1. Voting Behavior

Voting is an important element of democracy as citizens choose leaders that will represent them and support their interests. In this regard, there are three main approaches to analyze voting behavior. First, the socio-structural approach (the Columbia School) (Lazarsfeld et al., 1968; Lipset and Rokkan, 1967), where voters' economic status, religion, place of residence, profession and age have an influence on their voting decision. Second, the socio-psychological view (the Michigan School) (Campbell et al., 1960) that differentiates between long-term forces (like, party identification) and short-term forces (individual perception and assessment of candidates and issues). Finally, the theory of rational voting (Downs, 1957) assumes that voters gain utility from implemented policies. Therefore, they will vote for the candidate whose policies provide them the highest expected utility. On the other hand, parties choose policy positions that will maximize their expected vote share.

Let S denote the set of $i = 1, 2, \dots, n$ voters, G a set of $k = 1, 2, \dots, K$ parties and V the utility. In this sense, if a voter i decides to participate in the elections, they choose party k only if:

$$V_{ik} > V_{ik'} \quad (2.1)$$

This is the so-called deterministic voter model. In empirical research, however, it is not possible to observe and control all the factors of the voting decision process. Therefore, the application of a probabilistic voter model is more suitable, because it makes possible the inclusion of an individual-specific stochastic component ϵ_{ik} . So now, the probability that a voter i votes for a party k is:

$$P_{ik} = Prob(U_{ik} > U_{ik'}) \text{ where } U_{ik} = V_{ik} + \epsilon_{ik} \quad (2.2)$$

The deterministic part V_{ik} can be subdivided into three components or voting motives partially based on the Columbia and Michigan Schools, namely policy oriented (P), retrospective oriented (R) and non-policy oriented (NP):

$$V_{ik} = V_{ik}^P + V_{ik}^R + V_{ik}^{NP} \quad (2.3)$$

The policy voting motive goes back to the spacial model of Hotelling (1929), who analyzed spacial competition for a duopoly. Later, Downs (1957) explains that parties' policy platforms are evaluated regarding the expected utility, assuming the policy positions will result in political actions that will be carried out by the government. Then, Davis et al. (1970) extended this model to include multiple policy dimensions. This policy oriented voting requires political knowledge, while the retrospective one is less demanding as it is based on observable performance indicators. In other words, voters can either reward the good performance or punish the bad one (Kramer, 1971; Fiorina, 1981; Gomez and Wilson, 2001, 2003; Katz and Katz, 2009). In general, we can distinguish between two kinds of retrospective voting: *sociotropic voting*, when voters consider the economic situation of the country (Kinder and Kiewiet, 1979, 1981); and *pocketbook voting*, when they take into account their personal living conditions (Campbell et al., 1960; Kramer, 1971, 1983). On the other hand, voters with low education level and low policy awareness tend to base the electoral decision on non-policy factors (Abrajano, 2005). These non-policy factors could be perceived as permanent attributes and even sometimes be referred to as an extension of valence issues (Peress, 2010). Also, Magee et al. (1989), suggest that parties collect campaign contributions from interest groups to influence voting behavior.

2.3.2. Government Performance

According to Henning et al. (2018), parties/candidates choose their policy platforms in order to maximize its vote share S_k . Thus, the expected vote share of a party/candidate k is as follows:

$$S_k = \frac{1}{n} \sum_i P_{ik} \quad (2.4)$$

where n denotes the total number of voters and P_{ik} stands for the probability that a voter i chooses the alternative k .

In a scenario where voters choose policy oriented, they will evaluate the different alternatives based on their policy oriented utility component, i.e. they will choose the option that offers them the highest utility. Consequently, parties/candidates will choose their position on different policy dimensions based on the ideal points of such voters. Nevertheless, if voters choose non-policy oriented, parties/candidates will choose their platforms considering the preferences of interest groups, who in turn will deliver contributions that will be used to finance electoral campaigns in order to influence the behavior of voters (Magee et al., 1989; Grossman and Helpman, 1996).

The theoretical work of Keefer and Khemani (2005) studies the impact of voter behavior on the performance of the government. In particular, the lack of information makes voters base their electoral decision on non-policy indicators. Consequently, politicians have less incentive to provide public goods that satisfy the needs of the majority of society (i.e., low government performance). In other words, due to imperfect information, citizens cannot properly evaluate the delivery of public goods by the government, so it is encourage to serve special interests. In this sense, by assessing the relative importance of the different voting motives, the implications of voter behavior for government performance can be measured.

To calculate the relative importance of the voting components, the marginal effects (ME) of the independent variables must be first estimated to determine how sensitive are voters to changes in policy (P), non-policy (NP) and retrospective (R) components.

$$ME_{GK} = \frac{\partial P_{iG}}{\partial K} \quad (2.5)$$

and

$$ME_G^P = \sum_{K \in P} |ME_{GK}| \quad (2.6)$$

$$ME_G^{NP} = \sum_{K \in NP} |ME_{GK}| \quad (2.7)$$

$$ME_G^R = \sum_{K \in R} |ME_{GK}| \quad (2.8)$$

where G refers to the governmental party and K are the different independent variables. Then, to assess the relative importance of the different voting motives, relative marginal effects (RME) are estimated by comparing the absolute marginal effect of each component to the sum of all ME .

$$RME^P = \frac{ME_G^P}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (2.9)$$

$$RME^{NP} = \frac{ME_G^{NP}}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (2.10)$$

$$RME^R = \frac{ME_G^R}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (2.11)$$

Clearly, the sum of all RME is equal to one. As previously mentioned, the government's incentives to act efficiently are the result of the relative importance of the different voting motives. In this context, indicators for accountability and capture are derived based on the estimated RME .

The government accountability (GA) index is defined as follows:

$$GA = \frac{RME^P + RME^R}{RME^P + RME^R + RME^{NP}} \quad (2.12)$$

When comparing policy vs. non-policy voting, RME of the policy and retrospective components can be added up as both directly depend on governmental policies and therefore can be considered counterparts of the non-policy component. Formally, the larger the value of the RME of the non-policy voting motive in relation to the RME of the policy and retrospective motives, i.e. the more voters base their electoral decision on non-policy factors, the less accountable is the government towards the voters.

In addition, when evaluating parties/candidates, the more a voter rely on policy oriented factors, the more important he is to the government and greater consideration is given to his preferred political position when developing and implementing policies. In this sense, the relative political weight of individual voters depends on the absolute marginal effect of the policy component (ME_{iG}^P). Here, it is important to note that in a democracy the weight of each vote is equal to $\frac{1}{n}$. Therefore, if individual voters have different ME_{iG}^P , they also have different individual relative political weights (g_i).

$$g_i = \frac{ME_{iG}^P}{\sum_{i=1}^n ME_{iG}^P} \quad (2.13)$$

Further, the relative political weights of social groups can also be derived. Then, based on these political weights, a government capture GC index is derived as the average weight of a member of a social group T_1 compare to the average political weight of a member of another social group T_2 .

$$GC = \frac{\frac{\sum_{i \in T_1} g_i}{n_{T_1}}}{\frac{\sum_{i \in T_2} g_i}{n_{T_2}}} \quad (2.14)$$

Finally, the relative political weight of social groups is what defines their political influence.

2.4. Methodology

2.4.1. Probabilistic Voter Model

Probabilistic voter models are estimated with Discrete Choice models. They explain and predict choices between two or more alternatives. In political science research, they are commonly used to analyse how voters choose their preferred candidate or political party in an election. More specifically, these models examine: who choose? (the voters), what do they choose? (which candidate/party?) and how do they choose? (based on what aspects or characteristics?). Therefore, in the assessment of voter behavior, discrete choice models are very useful, since they not only predict the results, but also explain the way these results are achieved. Additionally, in electoral processes, the choice set meet all three requirements for a discrete choice model:

- all parties are present on the ballot (collectively exhaustive),
- each voter is allowed to choose only one party or candidate (mutually exclusive) and
- there is only a finite number of parties (finite number of alternatives).

In order to derive the Discrete Choice model, a Random Utility Model (RUM) is used. Here, if the voter i decides to participate in the elections and acts rationally, he chooses party k among K alternatives only if this party provides him the highest utility U_{ik} . In

other words, the greater the utility of a party, the more likely the party is elected by the voter.

$$P_{iA} = \text{Prob} (U_{iA} > U_{iB}) \quad (2.15)$$

However, in the empirical research, it is not possible to observe and control all the factors of the voting decision process. In this sense, we differentiate between the deterministic and the probabilistic voter model. In the deterministic voter model, the probability that voter i chooses party A in a two-party system is calculated as follows:

$$P_{iA}(A, B) = 1 \text{ if } V_{iA} > V_{iB} \quad (2.16)$$

$$P_{iA}(A, B) = 0,5 \text{ if } V_{iA} = V_{iB} \quad (2.17)$$

$$P_{iA}(A, B) = 0 \text{ if } V_{iA} < V_{iB} \quad (2.18)$$

where V_{iA} and V_{iB} are the utilities that voter i receives from parties A and B respectively. In other words, the voting decision depends on the party differential $V_{iA} - V_{iB}$. On the other hand, the probabilistic voter model allows the inclusion, in the utility function, of an individual-specific stochastic component μ_{ik} that contains everything that is not known by the researcher a priori:

$$P_{iA}(A, B) = \text{Prob}(U_{iA} \geq U_{iB}) \text{ where } U_{ik} = V_{ik} + \mu_{ik}, k = A, B \quad (2.19)$$

Since μ_{ik} is unknown by the researcher, it is treated as random. In this sense, we assume that it is independently, identically extreme value distributed (iid), i.e. μ_{iA} is not related to μ_{iB} . Due to the fact that there are three main parties in Honduras, this model had to be extended to a multi-party system. In this regard, we considered the logit model according to McFadden (1974, 1982) as a powerful tool in our voter behavior analysis. This approach allows to calculate the probability of choosing an alternative k from a set of alternatives K and can be represented as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (2.20)$$

Depending on the kind of variables under study and the parameters that are included, there are different logit models. On the one hand, the multinomial logit model consists of individual specific variables (characteristics of voters), such as, age, gender and religion, with alternative specific coefficients. They show the importance of an individual characteristic in choosing a specific party. On the other hand, the conditional logit model includes alternative specific variables (characteristics of parties), like policy issues, with generic coefficients. These coefficients are equal over all alternatives, because they show the importance of political distances for voting as a whole. Since our study includes both kind of variables, we estimated a mixture of multinomial logit and conditional logit model.

For the analysis, the datasets are transformed into long formats. This implies that each voter represents K observations, depending on the number of alternatives (political parties). Additionally, the dependent variable *Choice* is equal to 1 if the party is chosen and 0 otherwise. Furthermore, individual specific variables are different for every voter/party combination, whereas alternative specific variables are different for each alternative. A simple form of the model is as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \text{ where } V_{ik} = \alpha_k + \beta x_{ik} + \delta_k r_i \quad (2.21)$$

where α_k is an alternative specific constant, x_{ik} an alternative specific variable with a generic coefficient β , and r_i an individual specific variable with an alternative specific coefficient δ_k . The generic coefficients are constant for all alternatives. Conversely, the alternative specific coefficients are estimated with the reference party (the incumbent) set to zero and the remaining coefficients are interpreted with respect to this alternative.

According to the voter theory, the utility V_{ik} that a voter i associates with a party/candidate k includes three different components or voting motives: policy oriented (V_{ik}^P), retrospective oriented (V_{ik}^R) and non-policy oriented (V_{ik}^{NP}). Now the voter's utility function looks as follows:

$$V_{ik} = \beta_k V_{ik}^P + \delta_k V_{ik}^R + \alpha_k V_{ik}^{NP} \quad (2.22)$$

where β , δ and α are the relative weights of the voting components.

If voters are well informed about politics, their vote choice is based on the policy platforms suggested by the candidates. In this sense, according to the spatial voting model

of Davis et al. (1970) and Enelow and Hinich (1984), the policy oriented voter's utility function can be calculated as the weighted distance between a voter's preferred position x_{id} on a specific issue d and the perceived policy position of the party/candidate y_{ikd} on the same issue:

$$V_{ik}^P = -\sum_d^D \beta_d (y_{ikd} - x_{id})^2 \text{ where } D_{ikd} = (y_{ikd} - x_{id}) \quad (2.23)$$

The coefficient β must always be negative, because the greater the distance between the voter's position and the party/candidate's perceived position, the lower is the utility and, consequently, the lower is the probability that the voter chooses this party/candidate.

As regards the retrospective voting motive, Fiorina (1981) implies that voters can evaluate the past performance of the incumbent based on measures of well-being realized during the presidential term. In this regards, voters use an observable welfare indicator Z_{ir} which is determined by implemented governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir} (\gamma_G) \quad (2.24)$$

Note that in the estimation of our models, we assume that the assessment of the past economic performance of the government has also an impact on the voters' evaluation of the opposition parties.

Not all voters are well informed and aware of policies, especially in developing countries. Therefore, voters might also apply non-policy indicators to estimate their utility. For example, their socio-demographic characteristics x_{ij} , as well as their party identification PI_i , which works as an intensifier in the favoritism towards a candidate from the preferred political party. The latter, was included by Erikson and Romero (1990), Adams (2001) and Adams et al. (2005) in the voter's utility function. Additionally, the specific characteristics of the parties/candidates z_i , such as, appearance and charisma may also be relevant (Schofield, 2007). Furthermore, voters are frequently swayed by the campaign spending C_k or financial resources provided by international donor organizations like development aid. These are often granted on the condition that certain policies are implemented (Dollar and Easterly, 1999).

$$V_{ik}^{NP} = \sum_j^J \alpha_{kj} x_{ij} + \alpha_k PI_i + \alpha_k z_i + \sum_k^K \alpha_k C_k \quad (2.25)$$

2.4.2. Heterogeneity in Voting Behavior

We also analysed the impact of voter behavior on government performance, more specifically on government accountability and capture, and heterogeneity is a necessary condition for the existence of capture. However, the logit model already described is not optimal for this purpose, because it assumes that all voters act in a homogeneous way. Therefore, an approach that allowed the inclusion of heterogeneity was required. The Latent Class Analysis is a measurement model in which individuals can be classified into groups or latent classes, based on their personal characteristics. For this reason, the logit model was extended to a Latent Class Model (LCM). So now the probability that voter i chooses party k is class-specific (c):

$$P_{ikc} = \frac{e^{V_{ikc}}}{\sum_{k=1}^K e^{V_{ikc}}} \text{ where } V_{ikc} = \beta_{kc}V_{ikc}^P + \delta_{kc}V_{ikc}^R + \alpha_{kc}V_{ikc}^{NP} \quad (2.26)$$

A vector of socio-demographic characteristics was defined to determine the class membership. In this paper, these individual characteristics of the voters are referred as covariates. Then, an iterative process was used to determine class-specific utility functions and the probability of class membership. In the LCM the voter has an additional utility v_{ic} if he belongs to a group because of his socio-demographic characteristics x_i and therefore chooses differently from another group:

$$v_{ic} = \alpha_c + \sum b_c x_i \quad (2.27)$$

Based on this utility v_{ic} , a probability p_{ic} that an individual i belongs to a class c is calculated:

$$p_{ic} = \frac{e^{v_{ic}}}{\sum_{c=1}^C e^{v_{ic}}} \quad (2.28)$$

To decide the number of classes, an information criteria had to be used. The lower the value of the later, the better is the fit of the model. We followed De-Graft Acquah (2010) and Nylund et al. (2007), who suggest that the Bayesian Information Criterion (BIC) is a better criterion in determining the number of classes, since it appears to be consistent when using a relatively large sample size, like the ones used in this research study.

Additionally to the model for classes, that estimates the class membership, the LCM

also includes the model for choices, that determines which alternative is chosen. The latter, contains two kinds of variables, attributes and predictors. The attributes are the alternative specific variables with generic coefficients and the predictors are the individual specific variables with alternative specific coefficients.

Then, in order to calculate the probability of the classes, one has to weight the probability that voter i chooses party k given that he belongs to class c (P_{ikc}) with the probability that voter i actually belongs to class c (p_{ic}):

$$\bar{P}_{ik} = \sum_c^C P_{ikc} * p_{ic} \quad (2.29)$$

2.4.3. Government Performance Indicators

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for capture and accountability. However, since the probability \bar{P}_{ik} is logistically distributed, the algebraic signs of the coefficients indicate the direction of the impact, but the absolute values cannot be interpreted. Therefore, we first calculated marginal effects (ME), which show how sensitive are voters to changes in the policy, retrospective and non-policy components. In the case of the LCM, ME can be calculated only for the variables included in the model for choices, this means that the covariates have to be excluded as there are used to estimate the class membership.

$$ME_{ic}^P = \frac{\partial P_{igc}}{\partial D_{igd}} = |\beta_{dc} P_{igc} (1 - P_{igc})| \quad (2.30)$$

$$ME_i^P = \sum_c^C ME_{ic}^P * p_{ic} \quad (2.31)$$

$$ME_{ic}^R = \frac{\partial P_{igc}}{\partial Z_{ir}(\gamma_G)} = \left| P_{igc} \left(\delta_{gc} - \sum_k^K \delta_{kc} P_{ikc} \right) \right| \quad (2.32)$$

$$ME_i^R = \sum_c^C ME_{ic}^R * p_{ic} \quad (2.33)$$

$$ME_{ic}^{NP} = \frac{\partial P_{igc}}{\partial P I_i} = \left| P_{igc} (\alpha_{gc} - \sum_k^K \alpha_{kc} P_{ikc}) \right| \quad (2.34)$$

$$ME_i^{NP} = \sum_c^C ME_{ic}^{NP} * p_{ic} \quad (2.35)$$

where g refers to the party in the government.

These ME point out to which extent changes the probability that party g wins the elections when there is a 1 unit change in the independent variables. In this case, it makes sense to look at the absolute value, since we wanted to analyze the strength rather than the direction of the impact.

Further, to assess the relative importance of the three voting motives, we calculated the relative marginal effects (RI) for each voter:

$$RI_i^P = \frac{ME_i^P}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (2.36)$$

$$RI_i^R = \frac{ME_i^R}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (2.37)$$

$$RI_i^{NP} = \frac{ME_i^{NP}}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (2.38)$$

Government Accountability

In a country, there is low accountability, if the government has a lack of incentive to implement efficient policies that would increase the welfare of the society. In this regard, the implementation of inefficient policies is due to the fact that voters choose more non-policy oriented, instead of voting more policy and retrospectively oriented. Then the function that elections should serve to control the government is not fulfilled. Since, responsible actions by the government can only take place if the electorate votes policy

and retrospectively oriented, the following government accountability index (GA) was developed:

$$GA = \frac{RI^P + RI^R}{RI^P + RI^R + RI^{NP}} \quad (2.39)$$

where the policy and retrospective RI can be added in order to compare policy vs non-policy voting and the sum over all voters of the RI components is first calculated as:

$$RI^P = \sum_{i=1}^n RI_i^P \quad (2.40)$$

$$RI^R = \sum_{i=1}^n RI_i^R \quad (2.41)$$

$$RI^{NP} = \sum_{i=1}^n RI_i^{NP} \quad (2.42)$$

Government Capture

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority, usually the poor and uninformed voters. A large capture index can be expected in a country if the elections do not adequately fulfill their function of representing the interests of the whole society. This implies that a small group of voters has comparatively greater insights on political events. In this sense, we assume that the more policy oriented a person votes, the more importance he has for political parties. Therefore, to look at the extent to which a group is more important to politicians than the other and based on the ME_i^P , we first calculate the individual relative political weights g_i :

$$g_i = \frac{ME_i^P}{\sum_{i=1}^n ME_i^P} \quad (2.43)$$

However, since voters cannot influence a political process individually, it is interesting to see which group from the electorate has a greater weight in the political process. Hence, we developed the following government capture index (GC):

$$GC_{1vs2} = \frac{\frac{\sum_{i \in 1} g_i}{a_1}}{\frac{\sum_{i \in 2} g_i}{a_2}} \quad (2.44)$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

An index greater than 1 indicates that group 1 “captures” group 2. On the contrary, an index lower than 1 shows that group 2 “captures” group 1. Finally, an index equal to 1 implies that there is no capture.

2.5. Data

2.5.1. Data Sets

- **Honduras**

In Honduras, two sources of data were collected:

- Baseline household survey: as part of a food security project developed by the Government of Honduras and IFPRI (International Food Policy Research Institute), detailed data regarding the socioeconomic and demographic characteristics of the households was collected in seven departments of Honduras (Lempira, Intibucá, La Paz, Valle, Choluteca, El Paraiso and Francisco Morazán).
- Voter Survey: we designed a questionnaire to look at beliefs and political preferences of households. The data was collected through face-to-face interviews conducted in Spanish by O&M Estudios y Proyectos. The survey was carried out just before the general elections in Honduras on November 2017 in four departments (El Paraíso, Francisco Morazán, Intibucá and La Paz). In particular, the questionnaire had the following structure:
 1. Non-policy oriented motives and intended vote choice.
 2. Own policy positions, perceived policy positions of the main parties, as well as assessment of the economic situation and personal living conditions.

The total sample size of the surveys is 1021 voters. However, after data cleaning, 706 complete observations were available to analyze voting behavior.

- **Germany**

For Germany, we used data from an on-line survey regarding sustainability. It was carried out by infratest dimap on November 2018. The questionnaire used consists of the following parts:

1. Demographic statistics.
2. Political interest and voting decision.
3. Evaluation and importance of economy, ecology and social issues.
4. Own policy positions and perceived party positions.
5. Discrete choice experiments for evaluation of public goods.

The total sample size of the survey is 1002 voters. After cleaning up the data we were able to use 785 observations for the analysis. This implies that the sample sizes of the two countries are quite similar.

2.5.2. Dependent Variable

In a probabilistic voter model the dependent variable is usually the actual or intended vote choice, which is the answer from respondents to the question:

In Honduras:

If the presidential elections were held tomorrow, which party/candidate would you vote for?

Similarly, in Germany:

If the parliamentary elections were held the next Sunday, which party would you vote for?

Tables 2.1 and 2.2 show the results of our surveys, as well as the official presidential/federal election results for both countries. Even though none of the surveys' results are close to the actual election outcome, in both cases it is confirmed that the incumbent parties were the clear winners. In addition, the vote distributions demonstrate that electoral competition in Honduras and Germany correspond to multi-party systems. Therefore, for the analysis in the empirical section we considered the two main parties PNH

(Partido Nacional de Honduras) and PLH (Partido Liberal de Honduras), as well as the coalition party Libre + PINU-SD (Partido Libertad y Refundación + Partido de Innovación y Unidad-Social Democracia) for Honduras. Accordingly, we considered the alternatives UNION (CDU/CSU ¹), SPD (Sozialdemokratische Partei Deutschlands), LEFT (Die Linke), GREEN (Grüne), FDP (Freie Demokratische Partei) and AfD (Alternative für Deutschland) for Germany.

Table 2.1.: Presidential Election Results Honduras

	PNH	PLH	Libre + PINU-SD	Others
<i>Presidential Elections 2017</i>	42.95%	14.74%	41.42%	0.89%
<i>Own Survey 2017</i>	68.56%	23.09%	8.36%	0.00%

Source: Tribunal Supremo Electoral Honduras (2017), own survey

Table 2.2.: Federal Election Results Germany

	AfD	FDP	GREEN	LEFT	SPD	UNION	Others
<i>Federal Elections 2017</i>	12.64%	10.75%	8.94%	9.24%	20.51%	32.93%	5.00%
<i>Own Survey 2018</i>	13.12%	8.41%	23.95%	9.04%	18.09%	27.39%	0.00%

Source: Bundeswahlleiter (2021), own survey

2.5.3. Independent Variables

The independent variables were divided into:

Policy Voting: was measured by requesting the respondents to place themselves and the main parties on a scale for a series of policy issues. These were then used to calculate policy distances as the difference between the voters' own policy position and the perceived policy position of the parties.

Retrospective Voting: in the surveys, questions considering socio-tropic voting, as well as pocketbook voting were asked. More specifically, the questionnaires included questions regarding the assessment of the economic situation of the countries (ELC_Country)

¹While the CDU is the Christian Democratic party in 15 states, the CSU is the Christian Social party only eligible in the state of Bavaria. Both parties use to form a joint parliamentary group in the federal parliament. Thus, we treat both parties as one single party in this study.

and the personal living conditions (ELC_Own) in the present. In both cases, the answers were scaled from 1 = “Much better” to 5 = “Much worse”.

Non-policy Voting: includes a whole set of socio-economic variables such as gender, age, occupation and education. Also, to measure party loyalty, the variable Party ID was used. In particular, dummy variables were created, where “1” indicates party affiliation and “0” otherwise.

Transformation of Variables To compare voting behavior in Honduras and Germany, we used data from two different projects. Therefore, the transformation of some variables had to be made. More precisely, the policy distances and the covariate education. For the former, in the case of Germany, we transformed the policy distances for several issues into variables with 16 levels in order to make them comparable with the scales of the data from Honduras. For this aim, we proceeded as follows: first, we divided the maximum value of each issue over all parties by 16 to get the threshold values (s). Then, if the distance’s value was greater than the threshold value $s - 1$ and less or equal the threshold value s , we replace this value with the new value s . Furthermore, to compare the level of education, we created a new scale for the socio-economic variable in both countries, which can be found in tables 2.9 and 2.10 in the appendix.

Descriptive Statistics

In table 2.3 we displayed the descriptive statistics of the variables under study for Honduras and Germany. As stated before, the two samples are roughly the same size. Also, in both cases, the average age is around 50 years old and the majority of voters are employed. However, as expected, the level of education in the developed country is higher. On average, voters in Germany have at least a secondary school qualification, whereas in Honduras they do not even have a completed primary school education. Moreover, the size of the households in the developing country is much higher with more than twice the number of people living in the same household. Furthermore, in Honduras, most of the interviewees were male, while in Germany they were more equally divided between both genders. Another important dissimilarity between the countries was the assessment of the overall economic situation of the countries, as well as the personal living conditions. It

is evident that voters in Germany are more satisfied with the economic growth of their country and their own economic situation, than Honduran voters.

Table 2.3.: Descriptive Statistics

	Honduras					Germany				
	N	Mean	Std Dev	Min	Max	N	Mean	Std Dev	Min	Max
Gender	706	0.24	0.42	0	1	785	0.51	0.50	0	1
Education	706	1.67	0.79	1	5	785	3.23	1.09	1	5
Age	706	50.07	15.48	19	94	785	51.49	16.39	18	93
Household Size	706	5.22	2.65	1	18	785	2.21	1.10	1	10
Occupation	706	0.95	0.22	0	1	785	0.94	0.23	0	1
ELC_Country	706	2.84	0.85	1	5	785	2.33	0.66	1	5
ELC_Own	706	2.90	0.69	1	5	785	2.39	0.83	1	5

Source: own calculation

2.6. Empirical Application, Comparative Analysis and Results

2.6.1. Goodness of Fit and Latent Class Model Estimations

We estimated probabilistic voter models to determine which factors influence voting behavior in Honduras and Germany. Since the importance of voting motives differ across voters, with the data described in the former section, we calculated different LCM specifications to explain this heterogeneity. The LCM consists of two sub-models, the model for choices that determines which alternative is chosen and the model for classes that defines class membership. In the latter, the personal characteristics of the voters are included as covariates. Different model specifications were estimated with two and three classes. For simplicity, in this paper we only show the results of the two best models.

When deciding about the optimal number of latent classes, we looked at the Bayesian Information Criterion (BIC). As shown in table 2.4, the 2 classes models proved to be better, as the BIC is lower for both model specifications and both countries.

Table 2.4.: Goodness of Fit

	Honduras		Germany	
	Model 1 (BIC)	Model 2 (BIC)	Model 1 (BIC)	Model 2 (BIC)
<i>2 Classes</i>	1042.42	1005.13	2477.18	2592.90
<i>3 Classes</i>	1085.56	1033.44	2550.82	2650.47

Source: own estimation

To estimate the different LCM specifications, the incumbent was taken as reference party, meaning that the individual specific variables with alternative specific coefficients (Predictors) are interpreted in comparison to it. Again, the preferred models were those with the lowest BIC, which means that they have a better fit when compared to all other model specifications. Tables 2.5 and 2.6 show the best LCM estimations for Honduras and Germany. These models include only significant independent variables for at least one alternative and/or class chosen via the z-score test. The size of the class memberships are between 41% and 59% for Honduras, whereas for Germany they are between 28% and 72%. This evidences a stronger heterogeneity for the former country. The alternative specific constants, that absorb all information not explicitly incorporated in the models, when significant, they have a negative sign in both models for both countries. The policy issues EHvsIVN, FoodvsIncome and PSvsEG resulted significant with negative coefficients meaning that the greater the distance between a voter's policy position and the perceived policy position of a party, the less is the utility and thus the less is the probability to vote for that party's candidate. The retrospective variable ELC_Own has significant positive signs so that a negative assessment of the personal living conditions positively impact the opposition parties. On the contrary, the variable Party_ID has in most cases significant negative coefficients, which implies that having party affiliation decreases the probability of choosing an opposition party with respect the incumbent. In the model for classes, the significant and positive intercepts reflect a bias towards being part of class 1, whereas the significant and negative signs imply that there is a bias towards belonging to class 2. In addition, the positive coefficients of the covariate Age indicate that older people have a higher probability of being part of class 1. On the other hand, the negative coefficients, imply that younger voters are the ones with a higher tendency to belong to class 1.

Table 2.5.: Latent Class Models M1

		HONDURAS				GERMANY									
BIC		1042.4182				2477.1772									
VARIABLES	Class 1 (0.5487)		Class 2 (0.4513)		Class 1 (0.7160)		Class 2 (0.2840)		VARIABLES						
MODEL FOR CHOICES	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	MODEL FOR CHOICES	FOR CHOICES					
<i>Attributes</i>															
Libre_PINU_SD:(intercept)	-7.8455	-3.5855	***		-9.5053	-1.7104	.		-2.9816	-4.3597	***	4.8115	0.8457		AfD:(intercept)
PLH:(intercept)	-4.5080	-2.9846	**		-1.9724	-0.8689			-3.1912	-0.8823		5.7369	1.0428		FDP:(intercept)
									-0.6632	-1.3479		2.6688	0.4698		GREEN:(intercept)
									-4.9179	-4.6868	***	7.2600	1.2535		LEFT:(intercept)
disEHvsIVN	-0.4663	-4.6074	***		0.1030	0.8571			-3.3777	-3.9206	***	4.3288	0.7932		SPD:(intercept)
disFoodvsIncome	0.0102	0.2714			-0.9116	-1.6806	.		-0.0683	-5.0071	***	-0.1827	-3.2532	***	disEHvsIVN
<i>Predictors</i>															
Libre_PINU_SD:ELC_Own	1.5533	4.0535	***		4.1828	1.9783	*		-0.2451	-8.8179	***	-0.2746	-3.5442	***	disFoodvsIncome
PLH:ELC_Own	0.5101	1.6491	.		1.8880	1.7702	.								
									0.3821	2.0322	*	0.6066	0.9763		AfD:ELC_Own
									1.5802	5.3217	***	1.6560	1.5865		FDP:ELC_Own
									1.1181	3.5963	***	-0.2330	-0.2375		GREEN:ELC_Own
Libre_PINU_SD:Party_ID	0.8463	0.5570			-17.4909	-2.0125	*		-0.2278	-0.4379		-0.3229	-0.5086		LEFT:ELC_Own
PLH:Party_ID	2.0693	1.8656	.		-5.8031	-2.0670	*		-0.2278	-0.4379		-9.6878	-1.7566	.	SPD:ELC_Own
									2.2127	0.6393		-8.3565	-1.6181		AfD:Party_ID
									-0.1219	-0.3075		-11.0233	-1.8590	.	FDP:Party_ID
									-0.5350	-0.9155		-8.2096	-1.6228		GREEN:Party_ID
									-1.3057	-1.8799	.	-2.2619	-0.4402		LEFT:Party_ID
															SPD:Party_ID
<i>MODEL FOR CLASSES</i>															
<i>Covariates</i>															
classes:Intercept	-0.7269	-1.2759							3.2905	4.3755	***				classes:Intercept
classes:Age	0.0185	1.8211	.						-0.0438	-4.2921	***				classes:Age

*** p<0.001, ** p<0.01, * p<0.05, . p<0.10

Source: own estimation

Table 2.6.: Latent Class Models M2
HONDURAS **GERMANY**

BIC	1005.1289				2592.9008					
VARIABLES	Class 1 (0.5837)			Class 2 (0.4163)		Class 1 (0.5945)		Class 2 (0.4055)		VARIABLES
MODEL FOR CHOICES	Coeff.	z-value		Coeff.	z-value		Coeff.	z-value		MODEL FOR CHOICES
<i>Attributes</i>										<i>Attributes</i>
Libre_PINU_SD:(intercept)	-7.3814	-3.5998	***	-3.6799	-1.6255		-1.5597	-1.7860 .		AfD:(intercept)
PLH:(intercept)	-3.3200	-2.6876	**	-1.9555	-0.8714		-1.8912	-1.9247 .		FDP:(intercept)
							-0.9784	-1.0598		GREEN:(intercept)
							-3.0440	-3.5324 ***		LEFT:(intercept)
							-1.0242	-1.0237		SPD:(intercept)
disPSvsEG	-0.0906	-1.7931	.	-0.7620	-2.8544 **		-0.0345	-2.5118 *		disPSvsEG
disEHvsIVN	0.0096	0.1867		-1.0325	-2.3597 *		-0.1298	-7.2034 ***		disEHvsIVN
<i>Predictors</i>										
Libre_PINU_SD:ELC_Own	2.0903	3.3744	***	0.9793	1.6810 .		0.8344	2.6497 **		AfD:ELC_Own
PLH:ELC_Own	1.0234	2.7030 **		0.3411	0.7382		0.7138	2.1951 *		FDP:ELC_Own
							0.6621	1.9876 *		GREEN:ELC_Own
							1.3551	4.6076 ***		LEFT:ELC_Own
							0.0084	0.0288		SPD:ELC_Own
Libre_PINU_SD:Party_ID	-2.6973	-2.4360	*	-2.7606	-1.2528		-1.5441	-2.7869 **		AfD:Party_ID
PLH:Party_ID	-1.4637	-2.2325	*	0.1489	0.0955		-1.1001	-1.7617 .		FDP:Party_ID
							-1.2059	-1.9189 .		GREEN:Party_ID
							-1.5589	-2.8841 **		LEFT:Party_ID
							1.0529	1.3003		SPD:Party_ID
MODEL FOR CLASSES	Coeff.	z-value					Coeff.	z-value		MODEL FOR CLASSES
<i>Covariates</i>										<i>Covariates</i>
classes:Intercept	1.8197	2.7344	**				-2.7606	-3.5862 ***		classes:Intercept
classes:Age	-0.0293	-2.4475	*				0.0624	4.2716 ***		classes:Age

*** p<0.001, ** p<0.01, * p<0.05, . p<0.10

Source: own estimation

In order to test for robustness and stability of the model, we performed all calculations for Model 1 and Model 2, and we obtained similar results. However, for simplicity, from this point forward we will only present those from Model 1.

Finally, we estimated the utilities and probabilities. Table 2.7 shows the mean probability for each party. Again, the results coincide with the general election outcome, in the sense that they show the incumbent parties as the alternatives with the highest probability of winning.

Table 2.7.: Mean Probabilities

Honduras	
Political Parties	Mean Probabilities
<i>PNH</i>	68.54%
<i>PLH</i>	23.08%
<i>Libre + PINU-SD</i>	8.37%
Germany	
Political Parties	Mean Probabilities
<i>Afd</i>	13.06%
<i>FDP</i>	8.50%
<i>GREEN</i>	23.98%
<i>LEFT</i>	8.79%
<i>SPD</i>	18.27%
<i>UNION</i>	27.40%

Source: own calculation

2.6.2. Voter Behavior

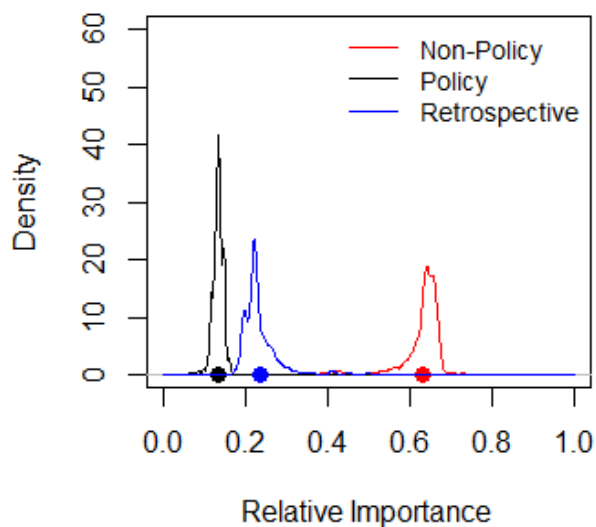
As mentioned in the methodology section, the probabilistic voter model is a logistic regression model. Therefore, its coefficients only allow to measure the direction of the impact, but to evaluate the magnitude of such impact, marginal effects had to be calculated. In the case of the LCM, marginal effects can only be calculated for the variables included in the model for choices, therefore, the covariate was not taken into account.

It is evident from the LCMs estimated that all voting motives are significant determinants of the voting decision in Honduras and Germany. However, the importance of each component is different. Thus, in addition to absolute marginal effects, relative marginal effects (*RI*) were calculated to estimate the relative importance of each voting motive. As displayed in the Kernel distributions in figure 2.1, the RI of the non-policy component is more widely distributed and is the most important voting motive in both countries. This agrees with the fact that the affiliation to a political party or party loyalty is usually

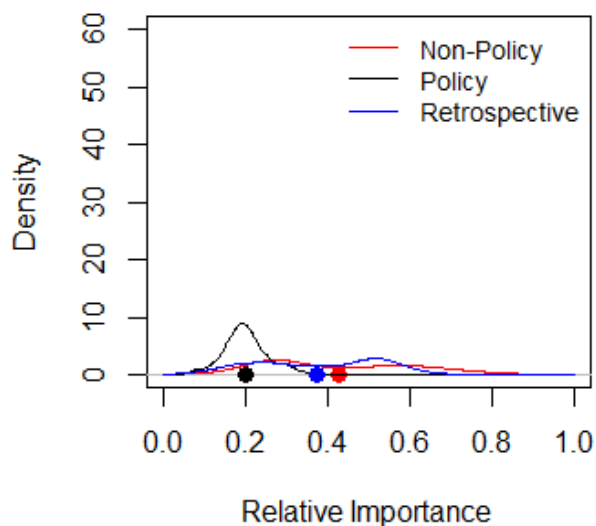
considered an important factor that influences the vote choice. On the contrary, the policy voting motive is the less relevant in both cases. More specifically, the mean value of the *RI* of the non-policy component is around 63% in Honduras and approximately 42% in Germany, whereas for the policy and retrospective components the mean values are around 13% and 23% for the former and 20% and 37% for the later, respectively. These minor roles that the policy and the retrospective components play in the electoral choice is what we would usually expect from a developing country like Honduras. On the other hand, although the non-policy component has a higher *RI* in Honduras, it is evident that the importance of the voting motives is similar in both countries, the developed and the developing one.

Figure 2.1.: Relative Importance of the Voting Motives

(a) Honduras



(b) Germany



Source: own data

2.6.3. Government Performance Indicators

Governments act accountable when they implement policies serving the needs and desires of voters rather than favoring special interest of lobbying groups or intrinsic preferences of

politicians. Based on the estimated models, government accountability indices (GA) were calculated (table 2.8). For Honduras, the resulting GA is 36.91%. This low accountability of the government with regard to its electorate suggests that, even though Honduras has a long democratic history, voting does not play a very important role in its political process. In other words, the function of elections of holding accountable the government is not really fulfilled. When looking at the GA of Germany, we can notice that the index is higher, which is the consequence of voters choosing more policy and retrospectively oriented in this developed country.

Table 2.8.: Government Accountability Indices

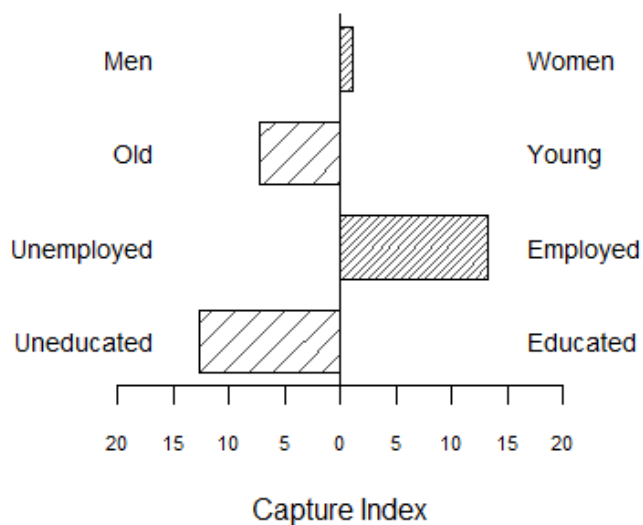
<i>Honduras</i>	36.91%
<i>Germany</i>	57.52%

Source: own calculation

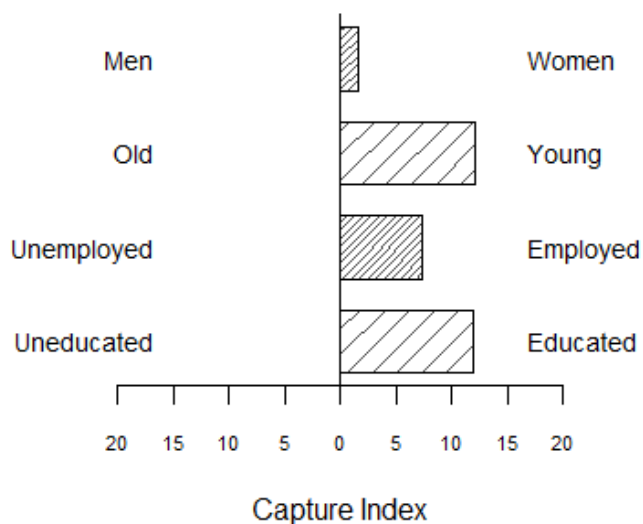
Even if a government acts accountable, electoral competition can still be biased in favor of special interests. To measure the political weight of certain groups of voters, government capture indices (GC) were calculated. In figure 2.2 GC s are displayed for different groups of the electorate. In both countries, the women and employed people capture their counterparts. However, the average political weight of women is not much higher than that of men. In addition, the indices for age and education level go in opposite directions. In the case of Honduras, old and uneducated voters capture the young and educated ones. On the other hand, in Germany, young and educated people have a higher political weight. This implies that the government seeking for reelection has higher incentives to implement policies that benefits these social groups.

Figure 2.2.: Government Capture Indices

(a) Honduras



(b) Germany



Source: own data

2.7. Summary and Conclusions

Despite some coups d'état and dictatorships, Honduras has a long democratic history. The form of government is republican, democratic and representative, where the president is

directly elected every four years by the people and by simple majority of votes. Honduras has currently ten political parties and the oldest two predominated strongly. Therefore, it was considered a two-party system for many years. However, in the general elections in 2013, a newly created party came second, turning it into a multi-party system. In the case of Germany, after decades of dictatorship, war and confusion, it is considered a parliamentary democracy since the Basic Law or Constitution (Grundgesetz) was approved and the German Federal Parliament (Bundestag) met for the first time in 1949. Elections are held every four years, primarily as proportional elections and coalitions of parties are generally necessary to form a government. The Chancellor is directly elected by the Bundestag. Germany has also a multi-party system and, in the current legislature, there are six political forces.

In Honduras the population is mainly engaged in agricultural activities. Nevertheless, like in many developing countries, a big challenge nowadays is to get households out of extreme poverty and to decrease undernutrition. According to The World Bank (2020), almost half of the population lived below the national poverty line and 22.9% below the national extreme poverty line in 2018. While Germany is one of the four largest agricultural producers in the European Union (BMEL, 2020) and only 14.8% of the population lived below the national poverty line in 2018 (The World Bank, 2018).

It is common knowledge that the implementation of efficient policies is necessary to reduce poverty and undernutrition, as well as promote economic growth. In this sense, elections in democratic systems are considered a mechanism to guarantee high government performance. In reality, however, we often face the implementation of distorted policies due to low government accountability and high government capture. In this regards, many suggest that voters base their electoral decision mainly on non-policy factors like advertising campaigns and sociodemographic characteristics. In these scenarios, there would not be any incentive for the elected politicians to serve the needs and desires of the electorate, resulting in policy failure and low government performance. Conversely, others explain that voters consider different factors before they choose a party or candidate. For example, citizens might evaluate candidates based on their announced party platforms or they may choose retrospectively oriented. Then the incentive of the government to implement policies that benefit the voters is higher. In addition, it is widely accepted that countries, even if they are democracies, vary with respect to the incentives politicians have to provide public services, promote economic growth and reduce poverty. More

specifically, it is often assumed that voters in developed countries are on average more educated, informed and politically aware and, therefore, choose more policy oriented. On the contrary, people in developing countries are usually less educated and less informed, which leads to lower government performance.

To understand both phenomena, low government accountability and high government capture, it is necessary to study voter behavior, since democratically elected politicians seek to maximize their vote share. In other words, they will either promote efficient policies that satisfy the needs of the society (if voters choose policy oriented) or they will promote bias policies that satisfy special interests at the expense of the majority of voters (if people make their decision non-policy oriented). In this regard, the objective of this paper is to identify the factors that drive voters electoral decision in Honduras, as well as Germany and determine the impact of this decision on government performance. More precisely, we were interested in determining if there is a significant difference in the relative importance of the voting motives between the two countries given their level of development. To this end, and using data collected in Honduras and Germany, we estimated different LCM specifications. The results show that all voting motives are significant determinants of the voting decision in both countries. More specifically, different policy issues, as well as the variable assessing the personal living condition and party loyalty, have a significant influence in the voting decision of Hondurans and Germans. In addition, to measure the relative importance of these voting components, relative marginal effects were calculated. They showed that, in both countries, the non-policy motive is the most important and the policy component is the less relevant. Nevertheless, it is important to highlight that the relative importance of the non-policy component is higher in the developing country. The low relative importance of the policy and retrospective voting motives contributed to low government accountability indices. This implies that the function of elections of holding accountable the government is not really fulfilled. However, as expected the government accountability index is higher in the developed country, where the level of education is higher and, consequently people choose more policy oriented. Regarding the government capture indices, we found that, in both countries, the women and employed people capture their counterparts. However, the indices for education level go in opposite directions. In the case of Honduras, uneducated voters have a higher political weight, whereas in Germany, the educated people are the ones with a higher political weight. This implies that the government seeking for reelection has higher incentives to implement policies that

benefits these social groups.

In conclusion, it is widely accepted that democracy, when compare to other political systems, is more efficient promoting economic growth and well-being. The question then arises as to how the difference in economic development between Honduras and Germany can be explained when both countries are democracies with multi-party systems. According to our results, in Honduras, where people is less educated and probably also less politically aware, the high relative importance of the non-policy component and the resulting low accountability of the government with regard to its electorate suggests that voting does not play a very important role in its political process. Therefore, the government does not have incentives to implement efficient policies that are necessary to promote economic growth, get households out of poverty and decrease undernutrition. On the other hand, in Germany, where people is more educated and probably also more politically aware, the relative importance of the policy and the retrospective components are higher. Consequently, the government accountability index is also higher, which means that in this developed country voters do play a more important role in the political process. These results are consistent with the theory and literature in the sense that more educated and better informed voters choose more policy and retrospectively oriented (i.e. in developed countries). However, it is also important to highlight that the non-policy component was always the most important one regardless of the level of development of the country. This suggests that, empirically speaking, a persistence of inefficient and biased policies can be observed in both, industrialized and developing countries, due to a lack of incentives from the governments.

Appendix

Table 2.9.: Transformation of the education variable - Honduras

Old Scale	New Scale	Meaning
0	1	None
1	1	Preschool
2	1	Adult literacy
3	2	Primary
4	3	Secondary common cycle
5	4	Secondary diversified cycle
6	5	Superior Non-University
7	5	Superior University
8	5	Postgraduate

Source: own estimations

Table 2.10.: Transformation of the education variable - Germany

Old Scale	New Scale	Meaning
1	1	Leaving school without a qualification
2	2	Elementary school, secondary school leaving certificate
3	3	Middle school leaving certificate, secondary school qualification
4	3	Polytechnic high school with 10th (before 1965 8th) grade
5	4	Completion of a technical college, subject-specific university entrance qualification
6	4	Abitur, general higher education entrance qualification
7	5	University degree, technical college degree

Source: own estimations

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uninformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nyland, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinary Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.serve.cl/>, December 2017. URL <https://historico.serve.cl/serve/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters’ perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

3. Chapter

To Vote or to Abstain?:

Analysis of the Influence of Corruption on Voting Behavior

Applying a Nested Multinomial Logit Model for Honduras

Svetlana Petri, Andrea Lendewig and Christian Henning

Paper prepared to be submitted at the “Journal of Development Policy and Practice”

Abstract

Even though Honduras is a presidential representative democratic republic with a multi-party system, over the past decades, the level of abstention have been increasing. One of the reasons seems to be that many Hondurans do not trust the state institutions and perceive the existence of corruption. Also, the country has experienced a massive international migration, mainly due to high levels of poverty and violence. In this paper, we are looking to understand how people decide to vote or to abstain. More specifically, we analyze the influence of political corruption on Hondurans' decision to participate in electoral processes. Moreover, we study the impact of this decision on the government performance in Honduras. To achieve this, we estimated a nested multinomial logit model that combines the probabilistic voter model of party/candidate choice with the participation/abstention choice. Then, to evaluate government performance, we derived indicators for accountability and capture. We conclude that we can no longer affirm that people decide to abstain just because it is costly, or that they decide to cast a vote because it is compulsory or merely a civic duty. There are other factors that voters take into account when they decide to vote or abstain. In the case of Honduras, we found that corruption, poverty and violence play an important role in the voting decision process. Also important to highlight is that non-voters have a higher government accountability index and a higher political weight. This implies that they can incentive the government to implement efficient policies, as they play a more important role in the political process than voters. Furthermore, they have the "power" to motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. Finally, we could say that, not only voting for an opposition party, but also abstaining can be considered a way of punishing the bad performance of the incumbent, as well as expressing dissatisfaction with corrupt state institutions.

3.1. Introduction and Related Literature

Corruption, also known as abuse of power, refers to the misuse by public officials or other public employees of the authority entrusted to them, the rights granted to them, as well as other opportunities and connections that are facilitated to them, in order to obtain personal benefits that goes against the law and moral principles. The occurrence of this phenomenon in Latin America has been widely studied by many scholars. Weyland

(1998) analyses the recent rise of corruption in Latin America and points to neopopulism as “an important piece of this complicated puzzle”. Manzetti and Blake (1996) study Argentina, Brazil and Venezuela and argue that, even though the aim of market reforms is to encourage transparency, they can be adapted to pursue corruption. In addition, Bohn (2012) used data from 24 Latin American countries and found that citizens perceive that corruption originates due to impunity and a negative assessment of the State to stop corruption. On the other hand, Husted (2002) examines efforts of the implementation of anti-corruption agreements in this region and makes suggestions for the development of policies that are culturally sensitive. Also, Arellano-Gault (2019) studies this phenomenon in Latin America and addresses different concepts of corruption, as well as the efforts of some countries to fight against it.

In the particular case of Honduras, the problem of corruption is such that people often refer to it as the “operating system” (Chayes, 2017; Lehmann, 2018), since it is not about simply improper actions of individuals, but rather comprises sophisticated networks that seek to maximize the benefits of their elite members. The Latin American Public Opinion Project (LAPOP, 2019b), pointed out that almost 90% of Hondurans consider that at least half of the politicians in their country are corrupt. In addition, the Control of Corruption value for Honduras in 2019 was -0.81, making it part of the bottom 30% for this indicator worldwide. This indicator measures the “perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests” (World Bank, 2019). In this sense, New Zealand had the highest value at 2.17, whereas South Sudan had the lowest at -1.77 for this year. Moreover, this Central American country is considered nowadays one of the most corrupt countries in the world. According to Transparency International (2021), the current Corruption Perceptions Index (CPI) of Honduras is 24 out of 100 points so it is ranked in the position 157 out of a total of 180 countries. This association ranks countries “by their perceived levels of public sector corruption according to experts and businesspeople”. They also explain that Honduras has weak institutions, an overdependence on agriculture and natural resources for income, as well as high levels of poverty and inequality. Furthermore, they report that the country has had great losses due to corruption, has experienced significant setbacks in the fight against impunity and the Congress has approved laws that promote corruption. More specifically, on January 19, 2016 the Organization of American States and the Government of Honduras signed an

agreement to establish the Mission to Support the Fight against Corruption and Impunity in Honduras (also known as MACCIH). The aim was to help Honduran institutions to establish an integrated system to prevent, investigate, and punish acts of corruption. Nonetheless, even though the mission helped to deter and investigate high-level corruption in the country, after its four-year mandate expired, Honduran President Juan Orlando Hernández did not allow the renewal of the mandate so that operations had to cease on January 2020.

In addition to ending the MACCIH, the Honduras' Congress approved a highly controversial new penal code, which reduced corruption sentences. More specifically, the reform establishes the possibility of replacing prison sentences with less restrictive measures in the event that the defendant reimburses the money and is sentenced to less than five years in prison. Among the crimes to which the sentences are reduced are those related to the misuse of public funds, abuse of authority, influence peddling, fraud and illicit enrichment. Human Rights Watch (2021) pointed out that the reform seems to be aimed at reducing the penalties for politicians involved with organized crime, by reducing sentences for corruption and related crimes, so impunity for acts of corruption remains the norm. Furthermore, InSight Crime (2020) also argues that the measure is intended to worsen impunity in a country where the main politicians have already been linked to organized crime. According to the Consejo Nacional Anticorrupción (2020), the decisions taken have clearly been aimed at hindering the fight against corruption, so it is inevitable that more cases of corruption will occur due to the impossibility of preventing them. They also suggest that certain congressmen already involved in corruption acts manipulated the debate in Congress to protect themselves from future investigations. This makes evident that the new penal code is a setback for the country regarding the fight against corruption.

Regarding the consequences of corruption, Azfar et al. (2001) indicate that it harms the economic development of countries. Moreover, Ades and Di Tella (1996) suggest that corruption has a negative effect on investment and Enste and Heldman (2018) trace its effects also on foreign trade, government expenditures and services, gross domestic product, as well as inequality, among others. Rollón and Álvarez García (2019) conclude that corruption impacts the quality of democracies and the development of Latin American countries, as well as the public opinion, which in turn increases mistrust in the system in general and in political elites in particular. According to Millares (2020), in developing countries like Honduras, it is easier for corruption to spread, weakening the democratic structure. Negin

et al. (2010) carried out a panel data analysis using data from 97 developing countries, including Honduras, and found that corruption and poverty are related and causality goes both ways. Furthermore, McFerrin (2017) argues that corruption is one of the causes of poverty in Honduras. In addition, corruption in the political arena is one of the reasons many Hondurans live in fear, as this has contributed to police brutality and high murder rates (Gibson, 2020).

Honduras faces high levels of poverty with 48.3% of the population living below the national poverty line (The World Bank, 2018). This Central American country is also considered one of the most violent places in the world with a rate of 38.9 victims of intentional homicide per 100,000 population in 2018, whereas the world rate was 5.8 per 100,000 population for the same year (United Nations Office on Drugs and Crime, 2018). Corrupt political institutions, poverty and violence in Honduras encourage migration to the United States (USA). Women and children travel from Central American countries, such as Honduras to seek asylum in the USA (UN High Commissioner for Refugees, 2014, 2015). Trautmann and Munoz (2019) also explain that some of the causes of the Honduran exodus are a high poverty rate, a corrupt political system and a failed security policy. Similarly, Human Rights Watch (2021) suggest that many people are pushed to leave the country due to the violent organized crime.

Many studies argue that political dissatisfaction can cause electoral abstentionism. According to James Alt and Fox (1977); Sabucedo and Cramer (1991); Ragsdale and Rusk (1993) and Narud and Valen (1996) those who do not trust the system or who feel that cannot exert influence through it are more likely to abstain. Moreover, Cebula (2005) found that the abstention rate increases due to public dissatisfaction with the government. Also, Vilajosana (1999), explains different reasons that lead citizens to express their dissatisfaction by not casting a vote. Damore et al. (2011) suggest that abstention, ballot spoiling and roll-off are all ways of protest voting to express dissatisfaction. Regarding corruption, Stockemer et al. (2012) and Stockemer (2013) analyzed a series of countries and found that voter turnout decreases as political corruption increases. Similarly, CAILLIER (2010) explains that with high levels of corruption, citizens are more likely to abstain. KOSTADINOVA (2009) suggests that when voters perceive the existence of corruption, faith in the democratic process decreases and, consequently, the voting level also decreases. On the other hand, and as mentioned above, high levels of poverty, violence and corruption are some of the main factors that have motivated Hondurans to emigrate. Every day there

are more citizens of this Central American country who decide to immigrate illegally to the USA. Therefore, we could assume that most of these voters are not able to participate in Honduran electoral processes. Consequently, it could be said that poverty, violence and corruption cause the migration of voters, which in turn decreases voter turnout in Honduras.

To reduce poverty and undernutrition and increase economic growth in a country, the quality of governance is important as it can guarantee the implementation of efficient policies. To achieve this, electoral competition in democratic systems should promote high government performance by reflecting the interests of the whole society and serving to control the government. However, in reality, electoral competition often leads to policy failure (i.e. low Government Accountability and high Government Capture). This is because, in political practice, it is a common observation in many countries that the development of policies is inefficient due to a lack of incentives from government, as well as biased in favor of special interests. In addition, even in countries with well functioning democracies, not all the people who have the right to vote in a presidential election decide to cast a vote. Sometimes it is because voting in a large national election could be considered an irrational act as it is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. On other occasions, political dissatisfaction due to high levels of corruption causes electoral abstentionism. Furthermore, high levels of poverty and violence motivate citizens to migrate to other countries illegally in search of a better quality of life. This in turn decreases voter turnout in their countries of origin as they are not able to participate in electoral processes.

There is a broad range of literature that studies voting behavior and government performance. Examples of the former are Campbell et al. (1960), as well as Lazarsfeld et al. (1968) and of the latter are Bailey (1999) and Stevens (2005). Furthermore, some researchers have combined the analysis of voting behavior and government performance, like Keefer and Khemani (2005) and Bardhan and Mookherjee (2002), who argue that less electoral competition implies incentives for the government to implement policies that do not correspond to the needs and desires of the majority in the society. Also, Henning et al. (2018) and Seide (2014) combined the analysis of voting behavior and government performance and included the retrospective component as a voting motive. Regarding the incorporation of the aspects of abstention/participation in voter behavior study, Downs

(1957) explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Later, Riker and Ordeshook (1973) conceptualized the citizen's choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Further, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention.

Electoral abstentionism can be considered a phenomenon of participatory apathy, which consists simply in the non-participation in the act of voting of those who have the right to do so. The reasons for this are very diverse. There are a series of sociodemographic factors (such as the level of education and income), psychological factors (like the indifference and lack of interest in political matters) and political factors (such as the lack of trust in political parties or in the electoral system) that could explain this phenomenon. Many authors have analyzed abstention in electoral processes. An example is Vilajosana (1999), who explained different reasons that lead citizens to express their dissatisfaction by not casting a vote. Furthermore, he pointed out that abstention can lead to the maintenance and improvement of the democratic system or it could end the democratic regime. Also, Adams et al. (2006) incorporated alienation from the candidates and indifference between the candidates as motivations for citizens to abstain from voting. They concluded that this decision is largely policy-based as it is affected by their evaluations of the candidates' policies. Moreover, Feddersen and Pesendorfer (1999) analyzed voters with asymmetric information and showed that more informed citizens are more likely to vote than their less informed counterparts. Additionally, Karklins (1986) showed that non-voting is correlated with high interest in politics when studying voter abstention in noncompetitive balloting. She argued that, in single-candidate elections, the only choice left to those who do not support the incumbent is not to vote at all. Nonetheless, electoral abstention caused by high levels of corruption in a country has rarely been studied.

In recent years in Honduras, abstention levels have increased despite the fact that voting is compulsory in this country. Multiple factors could be considered as the cause of this phenomenon. For example, according to our data, around 45% of Hondurans do not trust the electoral system. Also, almost half of the people feel that they are not being represented by the political parties. In addition, the country has experienced a massive international migration and some of the reasons that have produced this migration crisis are corruption, political instability and high levels of poverty. Despite the decline in the

voter turnout in this developing country, it is interesting to notice that very little research have being done in this subject. Aidt and Eterovic (2011) and Eterovic and Eterovic (2012) studied political competition and political participation in a number of countries including Honduras. However, the citizens' motives that lead to the decision not to cast a vote seem to have not been studied until now.

In this sense, in this paper, we are looking to understand how people choose a certain party or candidate, as well as how they decide to vote or to abstain. More specifically, we analyze the influence of political corruption on Hondurans' decision to participate in electoral processes. Moreover, we studied the impact of this decision on the government performance in Honduras since it is broadly accepted that policy choices of democratically elected politicians are driven by their vote maximizing probabilities. Therefore, an understanding of the behavior of voters is crucial to recognize what incentive politicians to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. In this regard, we estimated a nested multinomial logit model that was first proposed by McFadden (1977) as a generalization of the multinomial logit model based on the idea that some alternatives may be joined in several groups or nests. More precisely, we aimed to combine the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on the approach of Croissant (2012) and Greene (2008). The proposed model considers the simultaneous choice among three parties and the option abstention.

3.2. Methodology

3.2.1. Probabilistic Voter Model

Rational Choice Approach and Discrete Choice Model

In the rational choice theory, each person makes its decision individually and chooses the alternative they prefer or gives them the highest utility. In political science it is assumed that voters gain utility from the policies implemented by a candidate when it is elected. According to Downs (1957), voters will choose the party or candidate whose provide them with the highest expected utility. Likewise, political parties will choose the policy position or platform that maximizes their expected vote share. Hence, voters as well as political parties act rational when they make their decision.

The probabilistic voter model is, nowadays, the workhorse model applied in voter studies. These models are estimated with Discrete Choice models, which are commonly used in political science research to analyse how voters decide between two or more alternatives in an election. Furthermore, in electoral processes, the choice set meet all three requirements for a discrete choice model. It is *collectively exhaustive* because, if a person decides to vote, he will find that all parties are present on the ballot. The choice set is also *mutually exclusive*, as each voter is allowed to choose only one party or candidate, unless he decides to abstain. Finally, there is a *finite number of alternatives* (all parties or candidates and abstention).

In order to derive the Discrete Choice model, a Random Utility Maximization (RUM) model is used. Here, if the voter i acts rationally, he chooses k among K alternatives only if it provides him the highest utility U_{ik} .

$$P_{iA}(A, B) = \text{Prob} (U_{iA} > U_{iB}) \quad (3.1)$$

In empirical research, it is not possible to observe and control all the factors of the voting decision process. In this sense, the probabilistic voter model allows the inclusion of an individual-specific stochastic component that contains everything that is not known by the researcher a priori. Therefore, the utility function combines a deterministic part V_{ik} and a stochastic component μ_{ik} :

$$U_{ik} = V_{ik} + \mu_{ik}, \quad k = A, B \quad (3.2)$$

Logit Model

We assume that the stochastic component μ_{ik} is independently, identically extreme value distributed (iid), i.e. μ_{iA} is not related to μ_{iB} . This allowed us to derive a logit model. Additionally, in Honduras there are three main political parties and we also considered the alternative abstention. In this regard, the logit model according to McFadden (1974, 1982) allowed us to calculate the probability of choosing an alternative k from a set of alternatives K . So now the probability function can be represented as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (3.3)$$

According to the voter theory, the utility V_{ik} that a voter i associates with the alternative k includes three different components: policy oriented (V_{ik}^P), retrospective oriented (V_{ik}^R) and non-policy oriented (V_{ik}^{NP}). If voters are well informed and are interest in politics, they will decide based on the policy platforms suggested by the candidates. In this sense, according Thurner and Eymann (2000), voters may also tend to abstain, if the distance to the closest party/candidate exceeds a certain threshold. Hence, following the spatial voting model of Davis et al. (1970) and Enelow and Hinich (1984), the policy oriented voter's utility function can be calculated as the weighted distance between the voter's preferred position x_{id} on a specific issue d and the perceived position of the party/candidate y_{ikd} on the same issue d :

$$V_{ik}^P = -\sum_d^D \beta_d (y_{ikd} - x_{id})^2 \text{ where } D_{ikd} = (y_{ikd} - x_{id}) \quad (3.4)$$

The coefficient β must always be negative, because the greater the distance between the voter's position and the party/candidate's perceived position, the lower is the utility and, consequently, the lower is the probability that the voter chooses this party/candidate. In the case of the alternative abstention, the minimal negative distance was used, because the greater the distance between the voter's position and the closest party/candidate, the higher is the utility and the probability of abstaining.

As regards the retrospective component, Fiorina (1981) implies that voters can evaluate the past performance of the incumbent based on measures of well-being realized during the presidential term. In this regards, to make their decision, voters use an observable welfare indicator Z_{ir} which is determined by implemented governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir} (\gamma_G) \quad (3.5)$$

Note that in the estimation of our model, we assumed that the assessment of the economic performance of the government also has an impact on the voters' evaluation of the opposition parties, as well as on the decision of refraining from voting.

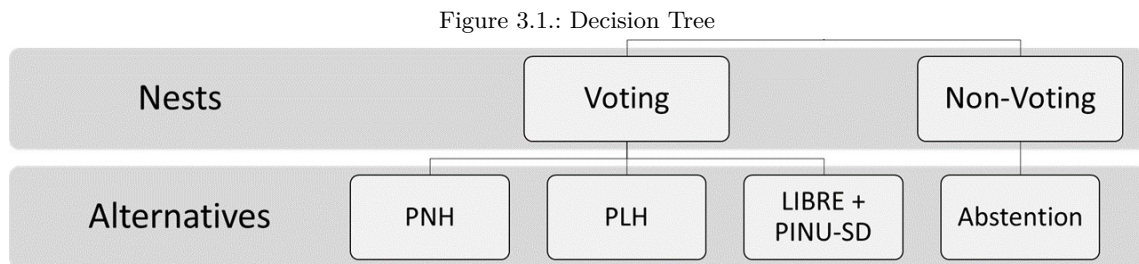
Not all voters are well informed and aware of policies, especially in developing countries like Honduras. Therefore, voters might also apply non-policy indicators to estimate their utility. For example, their socio-demographic characteristics x_{il} , as well as their approval of the work of the president y_{ig} as a measurement of their perception of the performance of the government. Additionally, the specific characteristics of the parties/candidates z_i ,

such as, appearance and charisma may also be relevant (Schofield, 2007).

$$V_{ik}^{NP} = \sum_l^L \alpha_{kl} x_{il} + \alpha_k y_{ig} + \alpha_k z_i \quad (3.6)$$

Nested Multinomial Logit Model

We were interested in analyzing how people in Honduras choose a certain party/candidate, as well as how they decide to vote or abstain. To this end we studied the voting decision as a multistage decision problem. In the first stage, the voter decided to either participate in the electoral process or not. Then, in the second stage, he chose its preferred alternative. In other words, if a person decided to vote, he would choose a party/candidate, whereas if he decided not to vote he would abstain. This multistage process is represented as a decision tree in figure 3.1.



Source: own illustration

For the estimations we proposed a model that considers the simultaneous choice among different political parties and the option abstention. More specifically, we combined the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on the approach of Croissant (2012) and Greene (2008). In this sense, we created two nests: the “Voting” nest when there was an intended vote choice for a party/candidate and the “Non-Voting” nest when no support was shown for any party/candidate, but instead the alternative abstention was preferred. The developed model is as follows:

$$P_{ik}(K) = P_{ik|m} P_m \quad (3.7)$$

with

$$P_{ik|m} = \frac{e^{V_{ik}}}{\sum_{k \in m} e^{V_{ik}}} \text{ where } V_{ik} = V_{ik}^P + V_{ik}^R + V_{ik}^{NP} \quad (3.8)$$

and

$$P_m = \frac{\left(\sum_{k \in m} e^{V_{ik}} \right)^{\lambda_m}}{\sum_l \left(\sum_{j \in l} e^{V_{ij}} \right)^{\lambda_l}} \quad (3.9)$$

In this approach, the probability that voter i chooses alternative k from a set of alternatives K is calculated by multiplying the conditional probability of choosing alternative k if the nest m is chosen, times the marginal probability of choosing the nest m . Moreover, the conditional probability $P_{ik|m}$ is the exponential expected utility of voter i from alternative k divided by the sum of the exponential expected utilities of all the alternatives within the nest m . Furthermore, the marginal probability P_m is the sum of the exponential expected utilities of all the alternatives within the nest m to the power of λ_m divided by the sum of the exponential expected utilities of all the alternatives for all the nests. In our model, λ_m is the elasticity of nest m and $1 - \lambda_m$ is the correlation within the nest. Therefore, for this model to be compatible with the RUM, all the nest elasticities have to be in the interval from 0 to 1.

3.2.2. Government Performance Indicators

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for capture and accountability.

Marginal Effects

Since the probability P_{ik} is logistically distributed, the algebraic signs of the coefficients indicate the direction of the impact, but the absolute values cannot be interpreted. Therefore, we first calculated marginal effects (ME), which show how sensitive are voters to changes in the policy, retrospective and non-policy components.

- For alternative specific variables with generic coefficients:

$$ME_{ik}^P = \frac{\partial P_{ik}}{\partial D_{ikd}} = P_{ik} (1 - P_{ik}) \beta_d \left[\frac{(1 - P_{ik|m})}{(1 - P_{ik})} + \lambda_m \frac{(P_{ik|m} - P_{ik})}{(1 - P_{ik})} \right] \quad (3.10)$$

- For individual specific variables with alternative specific coefficients:

$$ME_{ik}^{NP} = \frac{\partial P_{ik}}{\partial x_{il}} = P_{ik} \left(\alpha_k - \sum_j \alpha_j P_{ij} \right) \left[\frac{(P_m \alpha_k - \sum_j \alpha_j P_{ij})}{P_m (\alpha_k - \sum_j \alpha_j P_{ij})} + \lambda_m \frac{[1 - P_m] (\sum_j \alpha_j P_{ij})}{P_m (\alpha_k - \sum_j \alpha_j P_{ij})} \right] \quad (3.11)$$

These marginal effects point out to which extent changes the probability that voter i chooses alternative k when there is a 1 unit change in the independent variables.

Relative Marginal Effects

Further, to assess the relative importance of the three voting motives, we calculated the individual relative marginal effects (RI) for each alternative:

$$RI_{ik}^P = \left| \frac{ME_{ik}^P}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \right| \quad (3.12)$$

$$RI_{ik}^R = \left| \frac{ME_{ik}^R}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \right| \quad (3.13)$$

$$RI_{ik}^{NP} = \left| \frac{ME_{ik}^{NP}}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \right| \quad (3.14)$$

Government Accountability

In a country, there is low accountability, if the government has a lack of incentives to implement efficient policies that would increase the welfare of the society. The implementation of inefficient policies is due to the fact that voters choose more non-policy oriented. Since, responsible actions by the government can only take place if people choose policy and retrospectively oriented, the following government accountability index (GA) was developed:

$$GA = \frac{RI_g^P + RI_g^R}{RI_g^P + RI_g^R + RI_g^{NP}} \quad (3.15)$$

where the sum over all voters of the RI_g components of the governmental party are first calculated as:

$$RI_g^P = \sum_{i=1}^n RI_{ig}^P \quad (3.16)$$

$$RI_g^R = \sum_{i=1}^n RI_{ig}^R \quad (3.17)$$

$$RI_g^{NP} = \sum_{i=1}^n RI_{ig}^{NP} \quad (3.18)$$

Government Capture

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority, usually the poor and uninformed voters. This implies that a small group of people has comparatively greater insights on political events. In this sense, we assume that the more policy oriented a voter chooses, the more importance he has for political parties. Therefore, to look at the extent to which a group is more important to the governmental party than the other, we first calculate the individual relative political weights:

$$g_i = \frac{ME_{ig}^P}{\sum_{i=1}^n ME_{ig}^P} \quad (3.19)$$

Then, to identify which group from the electorate has a greater weight in the political process, we developed the following government capture index (GC):

$$GC_{1vs2} = \frac{\frac{\sum_{i \in 1} g_i}{a_1}}{\frac{\sum_{i \in 2} g_i}{a_2}} \quad (3.20)$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

An index greater than 1 indicates that group 1 “captures” group 2. On the contrary,

an index lower than 1 shows that group 2 “captures” group 1. Finally, an index equal to 1 implies that there is no capture.

3.3. Data

3.3.1. Surveys

Two sources of data were collected:

- **Baseline Household Survey:** as part of a food security project developed by the Government of Honduras and IFPRI (International Food Policy Research Institute), detailed data was collected regarding the socioeconomic and demographic characteristics of the households. The basic objective of the baseline survey was to provide the necessary information to assess the current standards of living of the population in the Corredor Seco in Honduras. In general, the survey allowed the generation of statistical information that can be used for the evaluation, analysis and formulation of public policies and investments that seek to improve the quality and standard of living of the population in 7 departments, namely Lempira, Intibucá, La Paz, Valle, Choluteca, El Paraiso and Francisco Morazán.
- **Voter Survey:** to look at beliefs and political preferences of households we designed a voter questionnaire and the data was collected by O&M Estudios y Proyectos. The survey was carried out just before the general elections in Honduras on November 2017 in four departments: El Paraiso, Francisco Morazán, Intibucá and La Paz. Collecting the data close to the elections, usually implies real electoral expectations of those interviewed, as the electorate had made up their mind regarding their voting decision. In particular, the questionnaire had the following structure:

PART A. Voting Decision: included six questions to evaluate non-policy oriented motives and the intended vote choice.

PART B. Policy Issues: included 27 questions to evaluate policy motives (by considering 10 different policy issues) and retrospective motives (by assessing the economic situation of the country and the personal living conditions of the interviewee).

The surveys were conducted face-to-face in Spanish. Only heads of the household of legal age (18 years or older) were interviewed. The surveys were carried out with electronic

devices, which allowed the interviews to be more fluid. Furthermore, the devices automatically detected inconsistencies in the data so that they could be corrected immediately.

The total sample size of the surveys is 1021 voters. However, some observations were deleted due to missing values concerning the vote choice question. Therefore, after data cleaning, 811 complete observations were available for analyzing voting behavior.

3.3.2. Variables

The variables under study were divided into dependent and independent:

Dependent Variable

In a probabilistic voter model the dependent variable is usually the actual or intended vote choice. Accordingly, respondents had to answer to the following question:

If the presidential elections were held tomorrow, which party/candidate would you vote for?

Table 3.1 shows the results of our voter survey, as well as the official presidential election results. The reason our results are not close to the actual election outcome is due to the fact that the former was a rural survey and the rural areas in Honduras mainly support the government party PNH (Partido Nacional de Honduras). Nevertheless, our survey confirms that the incumbent was the winner. Also, the vote distribution demonstrates that electoral competition in Honduras corresponds to a multi-party system. Therefore, for the analysis in the empirical section we considered the two main parties PNH and PLH (Partido Liberal de Honduras), as well as the coalition party Libre + PINU-SD (Partido Libertad y Refundación + Partido de Innovación y Unidad-Social Democracia). Moreover, since we are combining the party/candidate choice with the abstention/participation choice in a single model, the complete set of alternatives includes abstention as an option. Following the approach of Thurner and Eymann (2000), and due to the fact that non-voters are often under-represented in surveys, we considered the people who expressed their intention not to vote, as well as those potential non-voters who said that were not sure of their decision.

Table 3.1.: Presidential election results

	PNH	PLH	Libre + PINU-SD	Others	Abstention
<i>Presidential Elections 2017</i>	24.10%	8.27%	23.23%	0.50%	43.90%
<i>Own Survey 2017</i>	59.10%	19.90%	7.20%	0.00%	13.80%

Source: Tribunal Supremo Electoral Honduras (2017), own survey

Independent Variables

The independent variables were divided into:

Policy Voting: was measured by requesting the respondents to place themselves and the four main parties on a five-point scale for ten different policy issues (Inequality; Ideology; Public Services vs Economic Growth; Education and Health services vs Insecurity, Violence and Narcotrafficking; CCT vs Direct Transfers; Agricultural Sector vs Industrial Sector; Food Security vs Greater Income; Technological Progress vs Access to Markets; Technical Assistance; Agricultural Credits). Additionally, with this data, policy distances between voters and parties were calculated.

Retrospective Voting: in the survey, questions considering sociotropic voting, as well as pocketbook voting were asked. More specifically, the questionnaire includes two questions that assess the economic situation of the country (ELC_Country) and the personal living conditions (ELC_Own) in the present. In both cases, the answers were scaled from 1 = “Much better” to 5 = “Much worse”.

Non-policy Voting: includes a whole set of socio-economic variables such as gender, age, marital status, occupation and education. Also, regions were coded as dummy variables. In addition, a set of questions was included asking about the importance of the characteristics of the candidate, as well as the trust in state institutions. Furthermore, some variables that measure corruption were incorporated.

3.3.3. Inclusion of Abstention

To estimate the nested multinomial logit model where we combined the party/candidate choice with the abstention/participation choice and to analyze the voting behavior of abstainers, it was necessary to include the alternative abstention in the choice set. In addition, we needed to create additional independent variables:

- Abstention: a dummy variable equal to 1 if the person decided not to vote, zero otherwise.
- Distances for the alternative abstention for each issue: as the minimal negative distance (distance from the voter's ideal position to the nearest party). This agrees with the paradox of voting which states that the costs of voting normally exceed the expected benefits. Therefore, the greater the distance, the greater is the utility of not voting.

3.3.4. Descriptive Statistics of the Data

Table 3.2 displays the descriptive statistics of some relevant variables included in the data. In particular, *Gender*, *Marital status*, *Religion*, *Occupation*, *Farmer*, *Literacy* and *Bribery* equal to 1 indicate that the voters are female, married, catholic, employed, work in the agricultural sector, cannot read or write, and were not asked for a bribe, respectively. In addition, any department equal to 1 implies that the interviewee lives in that specific department. Furthermore, the variables related to the trust in state institutions, as well as those that measure corruption are scaled from 1 = "Very much" to 5 = "Not at all". In the case of the variable *Frequency and Amount CCT*, the scale goes from 1 = "Every month/All the money" to 5 = "Never/Nothing". It is interesting to highlight that, most of the voters interviewed are male, not married, catholic, have a job, work in the agricultural sector, and can write and read. Moreover, the average age of the people interviewed is almost 50 years old and the level of education is very low, as most of them did not even completed primary school. Also, the interviewees are more or less equally distributed among the four departments. Furthermore, respondents also expressed that they only trust "Moderately" the state institutions. Regarding the variables used to measure corruption, people thought that, to some extent, the government in power has fought against corruption and many argued that they were not asked for a bribe. However, it is evident that voters perceive the existence of corruption in this country. More specifically, most people think that CCT

(Conditional Cash Transfer) beneficiaries do not receive their transfers regularly and they only obtain partial amounts. In addition, voters are only “Moderately” satisfied with the way democracy works in Honduras, they only “Moderately” support the political system in their country and they only feel “Moderately” represented by the current political parties.

Table 3.2.: Descriptive statistics

Variables	N	Mean	Std Dev	Min	Max
<i>Gender</i>	811	0.2318	0.4223	0	1
<i>Age</i>	811	49.7500	15.4380	19	94
<i>Marital status</i>	811	0.4131	0.4927	0	1
<i>Religion</i>	811	0.6054	0.4891	0	1
<i>Occupation</i>	811	0.9507	0.2167	0	1
<i>Farmer</i>	811	0.5105	0.5002	0	1
<i>Literacy</i>	811	0.1924	0.3944	0	1
<i>Education</i>	811	2.0074	1.4824	0	8
<i>El Paraiso</i>	811	0.2725	0.4455	0	1
<i>Francisco Morazan</i>	811	0.1788	0.3834	0	1
<i>Intibuca</i>	811	0.2885	0.4534	0	1
<i>La Paz</i>	811	0.2602	0.4390	0	1
<i>Trust President</i>	811	2.5573	1.2610	1	5
<i>Trust National Congress</i>	811	3.3107	1.2140	1	5
<i>Trust Justice System</i>	811	3.3046	1.1578	1	5
<i>Trust Electoral System</i>	811	3.3058	1.1875	1	5
<i>Government fight corruption</i>	811	2.3477	1.1428	1	5
<i>Frequency and Amount CCT</i>	811	3.2910	0.5809	1	5
<i>Bribery</i>	811	0.9421	0.2338	0	1
<i>Satisfaction with Democracy</i>	811	2.8533	0.9985	1	5
<i>Support Political System</i>	811	3.0937	1.1412	1	5
<i>Representation by Political Parties</i>	811	3.2577	1.0454	1	5

Source: own calculation

3.4. Empirical Application and Results

3.4.1. Nested Multinomial Logit Model

With the data described in the former section, we estimated a series of nested multinomial logit models to identify the factors influencing the voting decision in Honduras. To confirm that the independent variables were not highly correlated with one or more of the other independent variables, a test for multicollinearity was performed. This consisted

in calculating the condition indexes and variance decomposition proportions to check the intercorrelation among the independent variables. In our optimal models, no presence of multicollinearity was detected.

Different model specifications were estimated where we only included the significant independent variables chosen via the p-value test. The incumbent party PNH was taken as the reference alternative, meaning that the alternative specific coefficients are interpreted in comparison to it. In this paper we only show the two best models. The goodness of fit of these was measured with the Log-Likelihood function and the Akaike Information Criterion (AIC).

Table 3.3.: Nested Multinomial Logit Model 1

Variables	Coefficients	Standard Error	z-value	Pr(> z)	
Abstention:(intercept)	-6.2094	3.2049	-1.94	0.0527	.
Libre_PINU_SD:(intercept)	-10.6673	1.2936	-8.25	0.0000	***
PLH:(intercept)	-5.2293	0.5824	-8.98	0.0000	***
disIdeology_NV	-0.0789	0.0116	-6.78	0.0000	***
disEHvsIVN_NV	-0.0779	0.0189	-4.12	0.0000	***
disFOODvsINCOME_NV	-0.0500	0.0185	-2.70	0.0069	**
Abstention:ELC_Own	0.3296	0.2747	1.20	0.2302	
Libre_PINU_SD:ELC_Own	1.1710	0.3163	3.70	0.0002	***
PLH:ELC_Own	0.3422	0.1730	1.98	0.0479	*
Abstention:Trust_President	1.0125	0.5452	1.86	0.0633	.
Libre_PINU_SD:Trust_President	1.5310	0.1740	8.80	0.0000	***
PLH:Trust_President	1.0814	0.1077	10.04	0.0000	***
Abstention:Marital_status	0.5928	0.3989	1.49	0.1373	
Libre_PINU_SD:Marital_status	0.7565	0.3710	2.04	0.0415	*
PLH:Marital_status	0.4407	0.2214	1.99	0.0465	*
iv:voting	0.8736	0.2390	3.65	0.0003	***
iv:non_voting	0.9259	0.4444	2.08	0.0372	*

*Significant coefficients: *** p<0.001, ** p<.01, * p<0.05, . p<0.10*

Log-Likelihood: -652

AIC: 1338

McFadden R²: 0.26

Likelihood ratio test : $\chi^2 = 457$ (p.value = <2e-16)

Source: own estimations

3. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior
Applying a Nested Multinomial Logit Model for Honduras

Table 3.4.: Nested Multinomial Logit Model 2

Variables	Coefficients	Standard Error	z-value	Pr(> z)	
Abstention:(intercept)	-6.2763	2.6722	-2.35	0.0188	*
Libre_PINU_SD:(intercept)	-9.6536	1.2651	-7.63	0.0000	***
PLH:(intercept)	-5.4114	0.5429	-9.97	0.0000	***
disIdeology_NV	-0.0794	0.0109	-7.26	0.0000	***
disEHvsIVN_NV	-0.0897	0.0185	-4.85	0.0000	***
disFOODvsINCOME_NV	-0.0441	0.0199	-2.21	0.0269	*
disPSvsEG_NV	-0.1077	0.0230	-4.68	0.0000	***
Abstention:ELC_Country	0.5953	0.2912	2.04	0.0409	*
Libre_PINU_SD:ELC_Country	1.4317	0.3074	4.66	0.0000	***
PLH:ELC_Country	0.6996	0.1389	5.04	0.0000	***
Abstention:Trust_Electoral_System	0.4963	0.2558	1.94	0.0523	.
Libre_PINU_SD:Trust_Electoral_System	0.8010	0.2040	3.93	0.0001	***
PLH:Trust_Electoral_System	0.6556	0.1036	6.33	0.0000	***
Abstention:Religion	0.6044	0.3351	1.80	0.0713	.
Libre_PINU_SD:Religion	-0.0356	0.3781	-0.09	0.9250	
PLH:Religion	-0.2049	0.2161	-0.95	0.3431	
iv:voting	0.6612	0.2043	3.24	0.0012	**
iv:non_voting	0.9907	0.4007	2.47	0.0134	*

Significant coefficients: *** $p < 0.001$, ** $p < .01$, * $p < 0.05$, . $p < 0.10$

Log-Likelihood: -676

AIC: 1387

McFadden R^2 : 0.233

Likelihood ratio test : $\chi^2 = 410$ ($p.value = < 2e-16$)

Source: own estimations

Tables 3.3 and 3.4 show the optimal nested multinomial logit model estimations for Honduras. In both models the alternative specific constants or intercepts, that absorb all information that is not explicitly included in the models, are significant and negative over all alternatives. Further, four political issues (Ideology; Education and Health services vs Insecurity, Violence and Narcotrafficking; Food Security vs Greater Income; and Public Services vs Economic Growth) resulted significant when voters make their decision. In all cases, the distances show the theoretically expected negative sign indicating, in the case of the political parties, that the greater the distance between a voter's position and the perceived position of a party, the less is the utility and thus the less is the probability to vote

for that party's candidate. On the other hand, in the case of the alternative abstention, as the variable has also a negative sign, the greater the distance between a voter's position and the perceived position of the nearest party, the higher is the utility and thus the higher is the probability to abstain. It is also interesting to note that the retrospective variables resulted significant. The positive sign of the coefficients imply that the less satisfied voters were with the current economic condition of Honduras, as well as their own living condition, the higher was the probability to either abstain or vote for an opposition party. Similarly, the models show that the less voters trust the president and the electoral system the lower is the probability of supporting the incumbent. Additionally, two socioeconomic variables, marital status and religion, were significant. The former indicates that, if voters are married, there is a higher probability of choosing an opposition party with respect to the government party PNH. On the other hand, the latter suggests that, if voters are catholic, there is a higher probability of abstaining. Finally, *iv:voting* and *iv:non-voting* are significant in both models. These are the lambda values for each nest, also called the nest elasticities. For the voting nests the correlations within the nests are 0.1264 and 0.3388 respectively. On the other hand, for the non-voting nests the correlations within the nests are 0.0741 and 0.0093. However, in the later we have to consider that there is only one alternative in these nests (abstention).

Finally, with the optimal models we estimated the utilities and probabilities. Table 3.5 shows the mean probabilities for each alternative and model. For both models the results are very similar. Moreover, in both cases the incumbent party PNH is the one with the highest probability. For simplicity, from now on we only present the results for Model 1, the optimal model.

Table 3.5.: Mean probabilities

Alternatives	Model 1	Model 2
<i>Abstention</i>	13.56%	13.56%
<i>PNH</i>	59.59%	59.66%
<i>PLH</i>	19.95%	19.92%
<i>Libre + PINU-SD</i>	6.90%	6.86%

Source: own estimations

Going further in detail, in table 3.6 we can see the groups of voters with higher tendency to abstain. More precisely, people who do not trust the state institutions are less motivated to cast a vote. In addition, those who think that the government in power has not fought against corruption, are dissatisfied with the way democracy works in Honduras, do not

support the political system in this country and do not feel represented by the current political parties tend to abstain more. In other words, when voters lack confidence in state institutions and perceive the existence of corruption, the probabilities of participating in the electoral process are lower.

Table 3.6.: Probability to abstain

	mean	mean	p-value
<i>Trust President vs Don't Trust President</i>	6.52%	21.55%	0.0000
<i>Trust National Congress vs Don't Trust National Congress</i>	6.70%	15.81%	0.0000
<i>Trust Justice System vs Don't Trust Justice System</i>	8.08%	15.49%	0.0000
<i>Trust Electoral System vs Don't Trust Electoral System</i>	7.78%	15.57%	0.0000
<i>Government fight corruption vs Government don't fight corruption</i>	9.71%	19.59%	0.0000
<i>Satisfaction with Democracy vs No Satisfaction with Democracy</i>	9.00%	16.96%	0.0000
<i>Support Political System vs Don't Support Political System</i>	9.34%	15.44%	0.0000
<i>Representation by Political Parties vs No Representation by Political Parties</i>	8.13%	15.06%	0.0000

Source: own estimations

3.4.2. Government Performance Indicators

As mentioned in the methodology section, the coefficients in the estimated nested multinomial logit models only allowed us to measure the direction of the impact. However, to evaluate the magnitude of such impact, marginal effects had to be calculated. Furthermore, to understand how people decide to either vote or abstain, we assessed the relative importance of the three voting motives by calculating the relative marginal effects for the nests voting and non-voting. In table 3.7 we observed that those who vote choose more policy and non-policy oriented, whereas those who decide to abstain choose more retrospectively oriented.

Table 3.7.: Relative importance for each voting motive and each nest

	Voting	Non-Voting	p-value
<i>Policy</i>	8.78%	8.32%	0.0000
<i>Retrospective</i>	18.36%	19.81%	0.0000
<i>Non-Policy</i>	72.86%	71.87%	0.0000

Source: own estimations

Governments act accountable when they implement policies serving the needs and desires of voters rather than favoring special interests of lobbying groups or intrinsic policy preferences of politicians. This is achieved when voters make their decision more policy and retrospectively oriented. In this sense, and given that those who vote make their decision more policy oriented and those who decide to abstain choose more retrospectively

oriented, to compare the impact of the behavior of both groups of voters on the government’s decision making process, it was necessary to estimate government accountability indexes for both nests. As shown in table 3.8, the accountability index is higher for those who decide not to cast a vote. Therefore, even though in Honduras the non-policy *RI* is high in both cases (and the accountability index is low), we noticed that abstainers play a more important role in the political process of Honduras. In other words, they have more “power” to incentive the government to implement better policies.

Table 3.8.: Government Accountability

Accountability Index	
<i>Voting</i>	27.14%
<i>Non-Voting</i>	28.13%

Source: own estimations

Even if a government acts accountable, politicians can still be biased in favor of special interests. To measure the political weight of certain groups of people, different government capture indexes were calculated. In table 3.9 it is evident that voters who do not trust the president, the National Congress, the Justice System or the Electoral System, capture those voters who do trust these state institution. It is also important to highlight that people who do not believe that the government in power has fought against corruption, are dissatisfied with the way democracy works in Honduras, do not support the political system in their country or think that are not being represented by the existing political parties, capture their counterparts. In particular, abstainers have a higher political weight and therefore, capture the people who vote. More specifically, non-voters are 13.75% more important to the government than the group of people who decided to cast a vote. This implies that non-voters have the “power” to incentive the government to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth.

Table 3.9.: Government Capture

Capture Index	
<i>Trust President vs Don't Trust President</i>	0.6821
<i>Trust National Congress vs Don't Trust National Congress</i>	0.7116
<i>Trust Justice System vs Don't Trust Justice System</i>	0.7377
<i>Trust Electoral System vs Don't Trust Electoral System</i>	0.7719
<i>Government fight corruption vs Government don't fight corruption</i>	0.8281
<i>Satisfaction with Democracy vs No Satisfaction with Democracy</i>	0.8273
<i>Support Political System vs Don't Support Political System</i>	0.7624
<i>Representation by Political Parties vs No Representation by Political Parties</i>	0.7411
<i>Voting vs Non-Voting</i>	0.8625

Source: own estimations

3.5. Summary and Conclusions

Even though Honduras is a presidential representative democratic republic with a multi-party system, over the past decades, the level of abstention have been increasing. One of the reasons seems to be that many Hondurans do not trust the state institutions and perceive the existence of corruption. Also, the country has experienced a massive international migration and some of the factors that have produced this migration crisis are corrupt political institutions, as well as high levels of poverty and violence. In Honduras the population is mainly engaged in agricultural activities. However, like in many developing countries, a big challenge nowadays is to get households out of extreme poverty and to decrease undernutrition. According to The World Bank (2019, 2020) and the Global Agriculture and Food Security Program (2018), currently in Honduras, around half of the population lives in poverty and in rural areas. In addition, this Central American country is considered one of the most violent places in the world with a rate of 38.9 victims of intentional homicide per 100,000 population in 2018 (United Nations Office on Drugs and Crime, 2018). Furthermore, Honduras is nowadays one of the most corrupt countries in the world. According to Transparency International (2021), the current Corruption Perceptions Index (CPI) of Honduras is 24 out of 100 points so it is ranked in the position 157 out of a total of 180 countries.

To reduce poverty and undernutrition and promote economic growth in a country, the quality of governance is important as it can guarantee the implementation of efficient policies. To achieve this, electoral competition in democratic systems should promote high

government performance, but in reality, electoral competition often leads to policy failure (i.e. low Government Accountability and high Government Capture). In this sense, we wanted to understand, not only how people choose a certain party or candidate, but also how they decide to vote or to abstain. More specifically, we analyzed the influence of political corruption on Hondurans' decision to participate in electoral processes. Moreover, we were looking to see the impact of this decision on the government performance in Honduras since it is broadly accepted that policy choices of democratically elected politicians are driven by their vote maximizing probabilities. Therefore, an understanding of the behavior of voters is crucial to recognize what incentive politicians to choose the policies that better match the specific country needs.

To this end, in this paper, we estimated nested multinomial logit models. In the optimal models, policy issues, retrospective variables and non-policy variables had a significant influence on the voting decision. It was interesting to see that the less satisfied were voters with the current economic condition of Honduras and their own living condition, the higher was the probability to either abstain or vote for an opposition party. Similarly, the models show that the less voters trust the president and the electoral system the lower is the probability of supporting the incumbent. Additionally, two socioeconomic variables, marital status and religion, were significant. The former indicates that, if voters are married, there is a higher probability of choosing an opposition party with respect to the government party PNH. On the other hand, the latter suggests that, if voters are catholic, there is a higher probability of abstaining. Regarding the probability to abstain, we found that people who do not trust the state institutions are less motivated to cast a vote. In addition, those who think that the government in power has not fought against corruption, are dissatisfied with the way democracy works in Honduras, do not support the political system in this country and do not feel represented by the current political parties, tend to abstain more. In other words, when voters lack confidence in state institutions and perceive the existence of corruption, the probabilities of participating in the electoral process are lower.

Concerning the relative importance of the three voting motives, we observed that those who vote choose more policy and non-policy oriented, whereas those who decide to abstain choose more retrospectively oriented. Despite the fact that the accountability index in Honduras is quite low, we noticed that it increases for those who decide not to cast a vote. Furthermore, people who lack confidence in state institutions and perceive the existence

of corruption, and consequently abstain, had a higher political weight. This implies that non-voters might have the “power” to incentive the government to choose and implement more efficient policies if they decided to cast a vote.

In conclusion, we can no longer affirm that people decide to abstain just because the act of voting is inconvenient and time-consuming, or that they decide to cast a vote because it is compulsory or merely a civic duty. There are other factors that voters take into account when they decide to vote or abstain. In the case of Honduras, we found that corruption, poverty and violence play an important role in the voting decision process. In particular, in this country, the level of corruption have clearly increase since the survey was carried out in 2017. One of the evidences was the announcement by the administration of President Juan Orlando Hernández in January 2020 of the shut down of the Mission to Support the Fight against Corruption and Impunity in Honduras (also known as MACCIH), which was considered a significant setback in the fight against impunity. Also, in 2020 a new penal code was approved, which shortens sentences for some corruption-related crimes and, in consequence, promotes corruption. According to Transparency International (2018, 2021), Honduras went from having a CPI of 29 out of 100 points in 2017 (ranked 135 out of 180 countries) to a CPI of 24 out of 100 points (ranked 157 out of 180 countries) in 2020. In addition to this, in recent years there have been strong migration to the USA. The so-called migrant caravans, are people that travel from Central America (mainly Guatemala, El Salvador and Honduras) to the Mexico–United States border, looking for better living conditions. This might result in higher levels of abstention in the upcoming general elections in Honduras in November 2021. Also important to highlight is that the higher accountability index of non-voters implies that they can incentive the government to implement efficient policies, as they play a more important role in the political process than voters. Furthermore, since voters are being captured by abstainers, we could conclude that the latter can motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. Moreover, we could say that, not only voting for an opposition party, but also abstaining can be considered a way of punishing the bad performance of the incumbent, as well as expressing dissatisfaction with corrupt state institutions. Therefore, we consider the inclusion of the alternative abstention in voting behavior analysis to be a very interesting and relevant topic that can be further researched in other countries.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uniformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in Belgium: An application of the Iijphart thesis. *Electoral Studies*, 17(4):419–424, Dec 1998. doi: 10.1016/S0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dail general election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in Latin America. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in British general elections 1966–October 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, Jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, Jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

-
- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nylund, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinaty Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters' perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

4. Chapter

**The Role of Abstainers in the Policy Making Process in
Developing and Developed Countries:
A Comparative Latent Class Approach for Honduras and
Germany**

Andrea Lendewig, Michael Grunenberg and Christian Henning

Paper prepared to be submitted at the “American Journal of Political Science”

Abstract

Voting establishes legitimacy of politicians' actions in democracies. However, not everybody with voting rights decide to participate, therefore, the average turnout has decreased globally. Our aim was to identify factors driving people's decision to participate and determine the importance of abstainers in policy making processes in developed and developing countries. Accordingly, we estimated probabilistic voter models with latent class using data from Honduras and Germany. All voting motives resulted significant for electoral decisions. Nonetheless, voting components' importance varies and the non-policy was highly significant implying that people without party loyalty are discouraged to vote. This in turn, resulted in low government accountability. Finally, the relative political weight of abstainers was low in Germany but high in Honduras. Hence, non-voters should be ignored in the former since they do not respond to policies, whereas in the latter they are relevant to the policy making process and could influence government performance.

4.1. Introduction

Voting is the most crucial mechanism that establishes legitimacy of political agents' actions in representative democratic systems. In other words, it could be regarded as an instrument that transmits the preferences of society into political decisions. Electoral competition, therefore, should ensure that governmental policies are in line with the preferences of the society. In this sense, governments should have the necessary incentives to implement policies that increase the welfare of the society and thus satisfy those citizens' preferences. Nonetheless, electoral competition often leads to policy failure, i.e. low governmental performance. This is because, in political practice, it is a common observation that the development of policies is biased in favor of special interest (high government capture), as well as inefficient because they are not being controlled (low government accountability).

In addition, not all people with the right to vote in an election decide to cast a vote, even in countries with well functioning democracies. Some people consider voting as a civic duty of every citizen in a democratic country. On the other hand, others think that voting is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. Therefore, in this research study we distinguish between voters and abstainers. The former are all the people who have the legal right to cast a vote at an election and actively exercise

this right, whereas the latter are all the people that have the right to vote, but decided not to do so.

According to Solijonov (2016), even though the voter population has been growing globally and the number of countries that hold elections have increased, the global average voter turnout has decreased significantly over the past decades. This statement corresponds to the situation in Honduras and Germany. In the former, the level of abstention has increased during the past years and one of the reasons seems to be that many people do not trust the political parties or candidates. Also, the country has experienced a massive international migration. Similarly, as reported by the Bundeswahlleiter (2019) and with the exception of the last general elections of 2017, in Germany the voter turnout have been decreasing over the past decades. Apparently, the unemployed and those who are deeply disappointed with their old favorite parties are less motivated to participate in electoral processes. Despite the fact that the trend of democratic participation have been declining around the world, it is important to highlight that abstention levels differ in developed and developing countries. In this regard, Stockemer (2015) found that developed countries have a higher citizens' participations at elections than developing countries, which implies that development by itself leads to higher turnout. Furthermore, Solijonov (2016) argued that in developed countries people are more informed and engaged in political processes, while economic adversity negatively affects political participation in the least developed countries. These findings coincide with the latest general election results in Honduras and Germany, where abstention was as high as 43,9% in the former and just 23,8% in the latter.

The purpose of this research study is, first, to identify the factors that drive people's decision to either vote or abstain. Then, we want to analyze the impact of this decision on the performance of the government in both countries since it is broadly accepted that policy choices of democratically elected politicians are driven by their vote maximizing probabilities. More specifically, we are looking to determine the importance of abstainers in the policy making process as it is often assumed that this group of the electoral has a lack of political knowledge and interest and, therefore, are frequently ignored by politicians. Additionally, we are looking to identify if there is a difference in the role that non-voters play in developed and developing countries. To this end, voter survey data from Honduras and Germany was used for the analysis.

The structure of this paper is as follows: First, we present a literature review of the

inclusion of the alternative abstention in the analysis of voter behavior and the role that non-voters play in the policy making process. Then, we shortly explain the theoretical framework of voting behavior, abstention and government performance. Subsequently, we proceed to explain the methodology developed for the estimates, as well as the datasets used in the analysis. Afterwards, we present the empirical application of a probabilistic voter model with a latent class approach and the results of the government performance indicators. Finally, we culminate with a brief summary and conclusions of this research study.

4.2. Literature Review

Voting implies a benefit, as well as a cost to the voter. On the one hand, a benefit is obtained when the voter changes the outcome of the election to what he desires. On the other hand, the costs of the act of voting itself include time and money among others. In addition, voters have to be sufficiently informed to make their electoral decision and this is also costly. In this sense, Kirchgässner (1992) deals with voting decisions, which he considers to be individual decisions that are irrelevant for the individual. However, the collective decision is relevant for all individuals. Further, he argues that following social (moral) rules, when they are deviated from the self-interest, implies a cost that is rather low in voting decision. Additionally, Grofman (1995) shows that the correlation between turnout and closeness in the elections can be positive or negative. This depends on the assumptions about the way voters form their expectations regarding whether their vote will be decisive or not. However, Myerson (1997) considered an example of a large voting game to illustrate the advantages of using a Poisson model of population uncertainty. He found that the expected turnout cannot be large, if the act of voting is costly for all voters. On the contrary, Blais (2000) concluded that the rational choice model of voting does not appear to work. People who are aware that the probability of their vote being decisive is tiny should rationally abstain. However, most people vote in national elections, and most of them vote regularly.

Many authors have analyzed abstention in electoral processes. One of the pioneers is Downs (1957) who explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Riker and Ordeshook (1968) studied the paradox of voting and developed a calculus in which it is rational for those who vote to do so and it is equally rational for those who do not vote

not to do so. To this end, they included an additional component in the utility function that contains positive effects on the expected utility of voting. Then, they concluded that “the behavior of most people can be described by a theory of rational decision-making”. Later, Riker and Ordeshook (1973) conceptualized the citizen’s choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Furthermore, Adams et al. (2006) incorporated alienation from the candidates and indifference between the candidates as motivations for citizens to refrain from voting. They concluded that this decision is largely policy-based as it is affected by their evaluations of the candidates’ policies. Further, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention. More specifically, they combined the spatial models of candidate/party choice and abstention/participation choice in a single nested multiattributive discrete choice model, where they considered policy-specific effects of alienation and indifference.

Electoral abstentionism can be considered a phenomenon of participatory apathy, which consists simply in the non-participation in the act of voting of those who have the right to do so. The reasons for this are very diverse. They could include sociodemographic factors, like the level of education and income; psychological factors, such as the lack of interest in political matters; or political factors, like the lack of trust in political parties or in the electoral system. Feddersen and Pesendorfer (1999) analyzed voters with asymmetric information and showed that more informed citizens are more likely to vote than their less informed counterparts. Furthermore, Krajina and Prochazka (2017) studied the reasons and motives for voting and found that people decide to vote mainly to affect the outcome and to express a political view. On the other hand, Karklins (1986) showed that non-voting is correlated with high interest in politics when studying voter abstention in noncompetitive balloting. She argued that, in single-candidate elections, the only choice left to those who do not support the incumbent is not to vote at all.

Up to this point we have explained that voting involves a benefit and a cost. We have also seen how some researchers include the alternative abstention in the analysis of voting behavior, as well as the explanation of some authors of the various reasons as to why people decide to vote or not. Nevertheless, we still have to look at the importance of abstainers from a political science point of view. For example, what do they mean for democracy? may this imply a free riding problem? are they important for the policy making process and can they impact the performance of the government?. In this regard, Vilajosana

(1999), who explained different reasons that lead citizens to express their dissatisfaction by not casting a vote, also pointed out that abstention can lead to the maintenance and improvement of the democratic system or it could end the democratic regime. Many consider that electoral abstention diminishes the strength of a country's democracy and undermines the legitimacy of elected leaders. In this sense, some democratic theorists like Barber (2004) and Pateman (1970) explain that participation is essential for democracy and others suggest that high levels of abstention undermine the legitimacy of democracy (Cavanagh (1981) and Salisbury (1975)). On the other hand, a high number of abstentionists does not necessarily imply any danger to democracy. Examples of countries that have a high level of abstention and that are not less democratic are Canada, Ireland and Switzerland. In fact, in their last electoral processes, all of them had abstention levels over 30% (Elections Canada (2019), Houses of the Oireachtas (2020)), and in the case of Switzerland, it was over 50% (Federal Statistical Office (2019)). However, according to The Economist Intelligence Unit (2021), they are all considered "Full democracies" since they have a Democracy Index score higher than 8.01.

Additionally, free-riding could play a crucial role in determining voter's participation behavior. In this regard, Kooreman and Haan (2003) identified another voting paradox where, due to free-riding of potential voters facing voting costs, the alternative with the highest number of supporters could lose a binary election. Similarly, Adachi (2004) analyzed a three-members social group who can choose between two alternatives and concluded that, in equilibrium and from a social welfare point of view, members in the majority group are too discouraged to participate, whereas those in the minority group are too encouraged to vote. This in turn, is caused by the free-rider problem within the majority group. Furthermore, Palfrey and Rosenthal (1983) carried out a game theoretic analysis and found that majorities will turnout less heavily than minorities because they have greater incentives to free-ride. Thus, election results can be relatively close, even when one of the alternatives is supported by a substantial majority of the electorate.

Voting is considered the most important act of political participation in a democracy. Some researchers even believe that voting should be compulsory in order to increase voter turnout as abstainers are not being politically represented. Lijphart (1997) argues that low voter turnout is a serious democratic problem because it causes inequality as politicians give more importance to the interests of those who decide to cast a vote. Similarly, Hooghe and Pelleriaux (1998) demonstrated that abolishing compulsory voting in Belgium would

lead to more inequality, since it would lead to an overrepresentation of highly educated citizens. In addition, voters and non-voters often represent different interests. According to Stockemer and Blais (2019), in national and European elections, abstainers have low levels of knowledge and interest in politics, as well as low sense of civic duty. In political science it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored by politicians and, consequently, cannot impact the performance of the government. In this sense, Pacek and Radcliff (1995) argued that turnout rates may have profound policy consequences. Furthermore, Hicks and Swank (1992) explained that electoral turnout is important for the share of national incomes that is spent on social welfare programs. On the other hand, Quaile Hill and Leighley (1992) and Leighley and Nagler (1992) reported a class bias in US state electorates. Moreover, they provided evidence that electoral participation is important in the formulation of social welfare policies and that the nature of such policies is determined, at least in part, by the composition of the electorate. Also, Uhlaner (1989) argued that groups of voters, who share political interests, play an important role in the political process as they motivate candidates to shift their position in the policy space towards the preferred position of the members of this group. Finally, the theory of rational voting (Downs, 1957) assumes that political parties seek to choose the policy position that maximizes their expected vote share. In this regard, Burnham and A James (1987) concluded that "if you don't vote, you don't count" and, according to Wattenberg (2002), "politicians are not fools; they know who their customers are", therefore they should not worry about nonvoters.

4.3. Theoretical Framework

4.3.1. Voting Behavior

Voting is the most crucial part of representative democratic systems since legitimacy of political agents' actions depends on voters' support. Theories of political economy (Brock and Magee, 1978; Downs, 1957; Grossman and Helpman, 1996; Grossman, 1994) assume that voters, interest groups¹, as well as political agents are rational decision makers. Thus, they maximize their utility.

Let S denote the set of $i = 1, 2, \dots, n$ voters, G a set of $k = 1, 2, \dots, K$ parties and V the

¹In the following, we will focus on voters and parties.

benefit. Thus, citizen i votes for the party k if it holds

$$V_{ik} > V_{ik'} \quad (4.1)$$

In general, there are three motivational components that can drive the choice of a voter. Accordingly, V_{ik} consists of three corresponding sub-utilities. The first motive of voting is *policy-oriented* and refers to the work of Anthony Downs (1957): Party platforms are evaluated regarding the expected utility, if the policy positions result in political actions that will be carried out by the government. Formally, political parties/candidates and voters take a position in $M \geq 1$ policy dimensions. This idea of spatial models is based on the work of Hotelling (1929). The voters choose a party/candidate they consider close to their own position (Adams et al., 2005; Enelow and Hinich, 1984). Let x_{im} denote the policy position of a voter and c_{ikm} a party's/candidate's position in the dimension m . The weight of this dimension is μ_m . Thus, the first sub-utility is as follows:

$$V_{ik}^{POL} = - \sum_m \mu_m \sqrt{(x_{im} - c_{ikm})^2} \quad (4.2)$$

The second sub-utility is also related to policy, but not to the concrete position. Moreover, governmental performance of the incumbent party is evaluated. In this sense, voters use observable indicators or the satisfaction with the situation in a certain policy domain. Consequently, they vote for the incumbent party if they are satisfied with the party's performance. If this process of *retrospective voting* (Fiorina, 1981) leads to a negative evaluation, they rather vote for an opposition party. Let z_{ij} denote the evaluation of issue j and θ_j as the corresponding weight, then

$$V_{ik}^{RETRO} = \sum_j \theta_j z_{ij} \quad (4.3)$$

refers to the retrospective voting sub-utility.

Furthermore, voters decide based on *non-policy* motives. While a new political culture (Achterberg, 2006) became more important in the last years, socio-structural class voting (Schoen, 2014), i.e. influence of social and economic voter characteristics, is still important. Moreover, loyalty to a party can influence the decision at the ballot box (Bartels, 2000). This also applies for candidates' or party leaders' characteristics (Schofield, 2007). The

corresponding sub-utility

$$V_{ik}^{NONPOL} = \sum_m \varphi_m o_{mk} + \sum_s \varphi_s r_{is} \quad (4.4)$$

comprises the characteristic s of a voter i denoted as r_{is} (weighted with φ_s), as well as o_{mk} denoting party k 's non-policy characteristic m (and φ_m as the corresponding weight).

All three kinds of voting motives can be summed up to an approach that unifies both, the behavioralist's perspective on voting, as well as the spatial-modeling framework (Adams et al., 2005). Thus, overall utility of party k for voter i is:

$$V_{ik} = V_{ik}^{POL} + V_{ik}^{RETRO} + V_{ik}^{NONPOL} \quad (4.5)$$

4.3.2. Abstention

Participating in elections is - like the voting decision for a party - driven by benefits and costs. Clearly, a voter's benefit increases if he is able to change the outcome of an election in his preferred direction, i.e. making his favored party the election's winner. This benefit gained from voting is measured by multiplying the policies of the candidates B with the probability P that a single voter changes the outcome of an election. However, this probability P is very low, especially if the electorate is large. Thus, the benefit is comparatively small, while the costs C of the act of voting are larger since they include time and other resources like money. Additionally, making an informed choice based on policy issues implies information costs to guarantee that the vote is given to the party that increases the benefit. Hence, rational decision makers would refrain from voting instead of participating at an election as the costs will normally exceed the expected benefits. Nevertheless, electoral turnout is relatively high in most democratic countries. Following Riker and Ordeshook (1968), the decision to vote or to abstain can be explained by the calculus of voting. In addition to the costs of voting, the probability to change the outcome and the expected benefit of turnout, they included an extra component in the utility function which has further positive effects, for example: Voting as a sense of civic duty D .

$$R = PB - C + D \quad (4.6)$$

Hence, a voter participates in the elections when their total expected utility R is greater than zero.

In addition to the costs involved and the low probability of being a “game changer” in terms of election results, two other aspects might explain abstention: *alienation* and *indifference*. In a broader sense, political alienation can be conceptualized as “attitudes of estrangement from the political system” (Olsen, 1969). Also, Thurner and Eymann (2000) argued, that alienation in the context of elections corresponds to the perceived distance to the most preferred party. In other words, the further away this party’s perceived position is from a voter’s ideal point, the higher the probability that this voter will not vote in the elections. In contrast, indifference refers to problems in distinguishing between competing parties, where citizens are not able to recognize one party’s platform that is closer to his preferred position (Plane and Gershtenson, 2004). Here, the more difficult it is for citizens to identify a real difference between the parties, the higher is the probability of abstaining.

4.3.3. Government Performance

According to Henning et al. (2018), parties/candidates choose their policy platforms in order to maximize their vote share S_k . Thus, the expected vote share of a party/candidate k is as follows:

$$S_k = \frac{1}{n} \sum_i P_{ik} \quad (4.7)$$

where n denotes the total number of voters and P_{ik} stands for the probability that a voter i chooses the alternative k .

In a scenario where voters choose policy oriented, they will evaluate the different alternatives based on their policy oriented utility component, i.e. they will choose the option that offers them the highest utility. Consequently, parties/candidates will choose their position on different policy dimensions based on the ideal points of such voters. Nevertheless, if voters choose non-policy oriented, parties/candidates will choose their platforms considering the preferences of interest groups, who in turn will deliver contributions that will be used to finance electoral campaigns in order to influence the behavior of voters (Magee et al., 1989; Grossman and Helpman, 1996).

The theoretical work of Keefer and Khemani (2005) studies the impact of voter behavior on the performance of the government. In particular, the lack of information makes voters

base their electoral decision on non-policy indicators. Consequently, politicians have less incentive to provide public goods that satisfy the needs of the majority of society (i.e., low government performance). In other words, due to imperfect information, citizens cannot properly evaluate the delivery of public goods by the government, so it is encourage to serve special interests. In this sense, by assessing the relative importance of the different voting motives, the implications of voter behavior for government performance can be measured.

To calculate the relative importance of the voting components, the marginal effects (ME) of the independent variables must be first estimated to determine how sensitive are voters to changes in policy (P), non-policy (NP) and retrospective (R) components.

$$ME_{GK} = \frac{\partial P_{iG}}{\partial K} \quad (4.8)$$

and

$$ME_G^P = \sum_{K \in P} |ME_{GK}| \quad (4.9)$$

$$ME_G^{NP} = \sum_{K \in NP} |ME_{GK}| \quad (4.10)$$

$$ME_G^R = \sum_{K \in R} |ME_{GK}| \quad (4.11)$$

where G refers to the governmental party and K are the different independent variables. Then, to assess the relative importance of the different voting motives, relative marginal effects (RME) are estimated by comparing the absolute marginal effect of each component to the sum of all ME .

$$RME^P = \frac{ME_G^P}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (4.12)$$

$$RME^{NP} = \frac{ME_G^{NP}}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (4.13)$$

$$RME^R = \frac{ME_G^R}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (4.14)$$

Clearly, the sum of all RME is equal to one. As previously mentioned, the government's incentives to act efficiently are the result of the relative importance of the different voting motives. In this context, indicators for accountability and capture are derived based on the estimated RME .

The government accountability (GA) index is defined as follows:

$$GA = \frac{RME^P + RME^R}{RME^P + RME^R + RME^{NP}} \quad (4.15)$$

When comparing policy vs. non-policy voting, RME of the policy and retrospective components can be added up as both directly depend on governmental policies and therefore can be considered counterparts of the non-policy component. Formally, the larger the value of the RME of the non-policy voting motive in relation to the RME of the policy and retrospective motives, i.e. the more voters base their electoral decision on non-policy factors, the less accountable is the government towards the voters.

In addition, when evaluating parties/candidates, the more a voter rely on policy oriented factors, the more important he is to the government and greater consideration is given to his preferred political position when developing and implementing policies. In this sense, the relative political weight of individual voters depends on the absolute marginal effect of the policy component (ME_{iG}^P). Here, it is important to note that in a democracy the weight of each vote is equal to $\frac{1}{n}$. Therefore, if individual voters have different ME_{iG}^P , they also have different individual relative political weights (g_i).

$$g_i = \frac{ME_{iG}^P}{\sum_{i=1}^n ME_{iG}^P} \quad (4.16)$$

Further, the relative political weights of social groups can also be derived. Then, based on these political weights, a government capture GC index is derived as the average weight of a member of a social group T_1 compare to the average political weight of a member of another social group T_2 .

$$GC = \frac{\frac{\sum_{i \in T_1} g_i}{n_{T_1}}}{\frac{\sum_{i \in T_2} g_i}{n_{T_2}}} \quad (4.17)$$

Finally, the relative political weight of social groups is what defines their political influ-

ence. Therefore, it can be assumed that, in a democracy, the relative political weight of abstainers also defines their level of importance in the policy making process.

4.4. Methodology and Data

4.4.1. Probabilistic Voter Models

Econometric Approach

Probabilistic voter models are estimated with Discrete Choice models. They explain and predict choices between two or more alternatives. In political science research, they are commonly used to analyze how voters choose their preferred candidate or political party in an election. More specifically, these models examine: who chooses? (the voters), what do they choose? (which alternative?) and how do they choose? (based on what aspects or characteristics?). Therefore, in the assessment of voter behavior, discrete choice models are very useful, since they not only predict the results, but also explain the way these results are achieved. Additionally, in electoral processes, the choice set meet all three requirements for a discrete choice model. First, it is *collectively exhaustive* because, if a person decides to vote, he will find that all parties are present on the ballot. The choice set is also *mutually exclusive*, as each voter is allowed to choose only one party or candidate, unless he decides to abstain. Finally, there is a *finite number of alternatives* (all parties or candidates and abstention).

In order to derive the Discrete Choice model, a Random Utility Model (RUM) is used. Here, if the voter i acts rationally, he chooses alternative k among K alternatives only if it provides him the highest utility U_{ik} .

$$P_{iA} = \text{Prob} (U_{iA} > U_{iB}) \quad (4.18)$$

However, in empirical research, it is not possible to observe and control all the factors of the voting decision process. In this sense, we differentiate between the deterministic and the probabilistic voter model. In the deterministic voter model, the voting decision depends on the party differential $V_{iA} - V_{iB}$, where V_{iA} and V_{iB} are the utilities that voter i receives from alternatives A and B , respectively. On the other hand, the probabilistic voter model allows the inclusion, in the utility function, of an individual-specific stochastic component μ_{ik} that contains everything that is not known by the researcher a priori:

$$P_{iA}(A, B) = Prob(U_{iA} \geq U_{iB}) \text{ where } U_{ik} = V_{ik} + \mu_{ik}, k = A, B \quad (4.19)$$

Since μ_{ik} is unknown by the researcher, it is treated as random. In this sense, we assume that it is independently, identically extreme value distributed (iid), i.e. μ_{iA} is not related to μ_{iB} . Due to the fact that Honduras, as well as Germany are multi-party systems, and we also considered the alternative abstention, this model had to be extended to allow the analysis of multiple alternatives. In this regard, we considered the logit model according to McFadden (1974, 1982) as a powerful tool in our voter behavior analysis. This approach allows to calculate the probability of choosing an alternative k from a set of alternatives K and can be represented as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (4.20)$$

Depending on the kind of variables under study and the parameters that are included, there are different logit models. On the one hand, the multinomial logit model consists of individual specific variables (characteristics of voters), such as, age, gender and education, with alternative specific coefficients. On the other hand, the conditional logit model includes alternative specific variables (characteristics of alternatives), like policy issues, with generic coefficients. This coefficients are equal over all alternatives, because they show the importance of the variable for voting as a whole. Since our study includes both kind of variables, we estimated a mixture of multinomial logit and conditional logit model.

For the analysis, the dataset is transformed into a long format. This implies that each voter represents K observations, depending on the number of alternatives. Additionally, the dependent variable *Choice* is equal to 1 if the alternative is chosen and 0 otherwise. Furthermore, individual specific variables are different for every voter/alternative combination, whereas alternative specific variables are different for each alternative and voter. A simple form of the model is as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \text{ where } V_{ik} = \alpha_k + \beta x_{ik} + \delta_k r_i \quad (4.21)$$

where α_k is an alternative specific constant, x_{ik} an alternative specific variable with a generic coefficient β , and r_i an individual specific variable with an alternative specific

coefficient δ_k . The generic coefficients are constant for all alternatives. Conversely, the alternative specific coefficients are estimated with the reference party (the incumbent) set to zero and the remaining coefficients are interpreted with respect to this alternative.

According to the voter theory, the utility V_{ik} that a voter i associates with an alternative k includes three different components or voting motives: policy oriented (V_{ik}^P), retrospective oriented (V_{ik}^R) and non-policy oriented (V_{ik}^{NP}). Now the voter's utility function looks as follows:

$$V_{ik} = \beta_k V_{ik}^P + \delta_k V_{ik}^R + \alpha_k V_{ik}^{NP} \quad (4.22)$$

where β , δ and α are the relative weights of the voting components.

If voters are well informed about politics, their vote choice is based on the policy platforms suggested by the candidates. In this sense, according Thurner and Eymann (2000), voters may also tend to abstain, if the distance to the closest party/candidate exceeds a certain threshold. Hence, following the spatial voting model of Davis et al. (1970) and Enelow and Hinich (1984), the policy oriented voter's utility function can be calculated as the weighted distance between a voter's preferred position x_{id} on a specific issue d and the perceived policy position of the party/candidate y_{ikd} on the same issue:

$$V_{ik}^P = -\sum_d^D \beta_d (y_{ikd} - x_{id})^2 \text{ where } D_{ikd} = (y_{ikd} - x_{id}) \quad (4.23)$$

The coefficient β must always be negative, because the greater the distance between the voter's position and the party/candidate's perceived position, the lower is the utility and, consequently, the lower is the probability that the voter chooses this party/candidate. In the case of the alternative abstention, the minimal negative distance was used (distance from the voter's ideal position to the nearest party). This agrees with the paradox of voting which states that the costs of voting normally exceed the expected benefits. Therefore, the greater the distance, the greater is the utility and the probability of abstaining.

As regards the retrospective voting motive, Fiorina (1981) implies that voters can evaluate the past performance of the incumbent based on measures of well-being realized during the presidential term. In this regards, voters use an observable welfare indicator Z_{ir} which is determined by implemented governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir} (\gamma_G) \quad (4.24)$$

Note that in the estimation of our model, we assume that the assessment of the past economic performance of the government has also an impact on the voters' evaluation of the opposition parties, as well as on the decision of refraining from voting.

Not all voters are well informed and aware of policies. Therefore, voters might also apply non-policy indicators to estimate their utility. For example, their socio-demographic characteristics x_{ij} and their party identification PI_{ik} , which works as an intensifier in the favoritism towards a candidate from the preferred political party. The later, was included by Erikson and Romero (1990), Adams (2001) and Adams et al. (2005) in the voter's utility function.

$$V_{ik}^{NP} = \sum_j^J \alpha_{kj} x_{ij} + \alpha PI_{ik} \quad (4.25)$$

Latent Class Models

The logit model already described assumes that all voters act in a homogeneous way. However, in our analysis an approach that allowed the inclusion of heterogeneity was preferred. For this reason, the logit model was extended to a Latent Class Model (LCM) as it is a measurement model in which individuals can be classified into groups or latent classes, based on their personal characteristics. So now the probability that voter i chooses alternative k is class-specific (c):

$$P_{ikc} = \frac{e^{V_{ikc}}}{\sum_{k=1}^K e^{V_{ikc}}} \text{ where } V_{ikc} = \beta_{kc} V_{ikc}^P + \delta_{kc} V_{ikc}^R + \alpha_{kc} V_{ikc}^{NP} \quad (4.26)$$

A vector of socio-demographic characteristics was defined to determine the class membership. In this paper, these individual characteristics of the voters are referred as covariates. Then, an iterative process was used to determine class-specific utility functions and the probability of class membership. In the LCM the voter has an additional utility v_{ic} if he belongs to a group because of his socio-demographic characteristics x_i and therefore chooses differently from another group:

$$v_{ic} = \alpha_c + \sum b_c x_i \quad (4.27)$$

Based on this utility v_{ic} , a probability p_{ic} that an individual i belongs to a class c is calculated:

$$p_{ic} = \frac{e^{v_{ic}}}{\sum_{c=1}^C e^{v_{ic}}} \quad (4.28)$$

To decide the number of classes, an information criteria had to be used. We followed De-Graft Acquah (2010) and Nylund et al. (2007), who suggest that the Bayesian Information Criterion (BIC) is a better criterion in determining the number of classes, since it appears to be consistent when using a relatively large sample size, like the ones used in this research study. In this sense, the lower the value of the BIC, the better is the fit of the model.

Additionally to the model for classes, that estimates the class membership, the LCM also includes the model for choices, that determines which alternative is chosen. The latter, contains two kinds of variables, attributes and predictors. The attributes are the alternative specific variables with generic coefficients and the predictors are the individual specific variables with alternative specific coefficients.

Then, in order to calculate the probability of the classes, one has to weight the probability that voter i chooses alternative k given that he belongs to class c (P_{ikc}) with the probability that voter i actually belongs to class c (p_{ic}):

$$\bar{P}_{ik} = \sum_c^C P_{ikc} * p_{ic} \quad (4.29)$$

4.4.2. Government Performance Indicators

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for capture and accountability. However, since the probability \bar{P}_{ik} is logistically distributed, the algebraic signs of the coefficients indicate the direction of the impact, but the absolute values cannot be interpreted. Therefore, we first calculated marginal effects (ME), which show how sensitive are voters to changes in the policy, retrospective and non-policy components. In the case of the LCM, ME can be calculated only for the variables included in the model for choices, this means that the covariates have to be excluded as they are used to estimate the class membership.

$$ME_{ikc}^P = \frac{\partial P_{ikc}}{\partial D_{ikd}} = |\beta_{dc} P_{ikc} (1 - P_{ikc})| \quad (4.30)$$

$$ME_{ik}^P = \sum_c^C ME_{ikc}^P * p_{ic} \quad (4.31)$$

$$ME_{ikc}^R = \frac{\partial P_{ikc}}{\partial Z_{ir}(\gamma_G)} = \left| P_{ikc}(\delta_{kc} - \sum_k^K \delta_{kc} P_{ikc}) \right| \quad (4.32)$$

$$ME_{ik}^R = \sum_c^C ME_{ikc}^R * p_{ic} \quad (4.33)$$

$$ME_{ikc}^{NP} = \frac{\partial P_{ikc}}{\partial P_{I_{ik}}} = |\alpha_c P_{ikc}(1 - P_{ikc})| \quad (4.34)$$

$$ME_{ik}^{NP} = \sum_c^C ME_{ikc}^{NP} * p_{ic} \quad (4.35)$$

In the case of Germany, the incumbent government is a coalition composed of the Christian Democratic Union/Christian Social Union (CDU/CSU) and the Social Democratic Party (SPD). Therefore, we first calculated the *MEs* for each party. Then, we estimated a weighted average, based on the number of votes each alternative obtained.

These *MEs* point out to which extent changes the probability of an alternative *k* when there is a 1 unit change in the independent variables. In this case, it makes sense to look at the absolute value, since we wanted to analyze the strength rather than the direction of the impact.

Further, to assess the relative importance of the three voting motives, we calculated the relative marginal effects (*RME*) for each voter:

$$RME_{ik}^P = \frac{ME_{ik}^P}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (4.36)$$

$$RME_{ik}^R = \frac{ME_{ik}^R}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (4.37)$$

$$RME_{ik}^{NP} = \frac{ME_{ik}^{NP}}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (4.38)$$

Government Accountability

In a country, there is low accountability, if the government has a lack of incentive to implement efficient policies that would increase the welfare of the society. In this regard, the implementation of inefficient policies is due to the fact that voters choose more non-policy oriented, instead of voting more policy and retrospectively oriented. Then the function that elections should serve to control the government is not fulfilled. In this sense, since, responsible actions by the government can only take place if the electorate votes policy and retrospectively oriented, the following government accountability (*GA*) index was developed:

$$GA = \frac{RME_g^P + RME_g^R}{RME_g^P + RME_g^R + RME_g^{NP}} \quad (4.39)$$

where the policy and retrospective *RME* can be added in order to compare policy vs non-policy voting and the sum over all voters of the *RME* for each components is first calculated as:

$$RME_g^P = \sum_{i=1}^n RME_{ig}^P \quad (4.40)$$

$$RME_g^R = \sum_{i=1}^n RME_{ig}^R \quad (4.41)$$

$$RME_g^{NP} = \sum_{i=1}^n RME_{ig}^{NP} \quad (4.42)$$

where *g* refers to the party in the government.

Government Capture

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority. A large capture index can be expected in a country if the elections do not adequately fulfill their function of representing the interests of the whole society. This implies that a small group of voters has comparatively greater insights on political events. In this sense, we assume that the more policy oriented

a person votes, the more importance he has for political parties. Therefore, to look at the extent to which a group is more important to politicians than the other and based on the ME_{ig}^P , we first calculate the individual relative political weights (g_i):

$$g_i = \frac{ME_{ig}^P}{\sum_{i=1}^n ME_{ig}^P} \quad (4.43)$$

However, since voters cannot influence a political process individually, it is interesting to see which group from the electorate has a greater weight in the political process. Hence, we developed the following government capture (GC) index:

$$GC_{1vs2} = \frac{\frac{\sum_{i \in 1} g_i}{a_1}}{\frac{\sum_{i \in 2} g_i}{a_2}} \quad (4.44)$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

An index greater than 1 indicates that group 1 “captures” group 2. On the contrary, an index lower than 1 shows that group 2 “captures” group 1. Finally, an index equal to 1 implies that there is no capture.

4.4.3. Data

Data Sets

- **Honduras**

In Honduras, two sources of data were collected:

- Baseline household survey: as part of a food security project developed by the Government of Honduras and IFPRI (International Food Policy Research Institute), detailed data regarding the socioeconomic and demographic characteristics of the households was collected in seven departments of Honduras (Lempira, Intibucá, La Paz, Valle, Choluteca, El Paraiso and Francisco Morazán).
- Voter Survey: we designed a questionnaire to look at beliefs and political preferences of households. The data was collected through face-to-face interviews conducted in Spanish by O&M Estudios y Proyectos. The survey was carried out just before the general elections in Honduras on November 2017 in four de-

partments (El Paraíso, Francisco Morazán, Intibucá and La Paz). In particular, the questionnaire had the following structure:

1. Non-policy oriented motives and intended vote choice.
2. Own policy positions, perceived policy positions of the main parties, as well as assessment of the economic situation and personal living conditions.

The total sample size of the surveys is 1021 voters. However, after data cleaning, 811 complete observations were available to analyze voting behavior.

- **Germany**

For Germany, we used data from an on-line survey regarding sustainability. It was carried out by infratest dimap on November 2018. The questionnaire used consists of the following parts:

1. Demographic statistics.
2. Political interest and voting decision.
3. Evaluation and importance of economy, ecology and social issues.
4. Own policy positions and perceived party positions.
5. Discrete choice experiments for evaluation of public goods.

The total sample size of the survey is 1002 voters. After cleaning up the data we were able to use 927 observations for the analysis. This implies that the sample sizes of the two countries are quite similar.

Dependent Variable

In a probabilistic voter model the dependent variable is usually the actual or intended vote choice, which is the answer from respondents to the question:

In Honduras:

If the presidential elections were held tomorrow, which party/candidate would you vote for?

Similarly, in Germany:

4. *The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany*

If the parliamentary elections were held the next Sunday, which party would you vote for?

Table 4.1 shows the results of our surveys, as well as the official presidential/federal election results for both countries. Even though none of the surveys' results are close to the actual election outcome, in both cases it is confirmed that the incumbent parties were the clear winners. In addition, the vote distributions demonstrate that electoral competition in Honduras and Germany correspond to multi-party systems. Therefore, for the analysis in the empirical section we considered the two main parties PNH (Partido Nacional de Honduras) and PLH (Partido Liberal de Honduras), as well as the coalition party Libre + PINU-SD (Partido Libertad y Refundación + Partido de Innovación y Unidad-Social Democracia) for Honduras. Accordingly, we considered the alternatives UNION (CDU/CSU ²), SPD (Sozialdemokratische Partei Deutschlands), LEFT (Die Linke), GREEN (Grüne), FDP (Freie Demokratische Partei) and AfD (Alternative für Deutschland) for Germany.

Table 4.1.: Election results 2017

Shares of eligible voters		
Honduras	<i>Presidential Elections 2017</i>	<i>Own Survey 2017</i>
<i>PNH</i>	24,1%	59,1%
<i>PLH</i>	8,3%	19,9%
<i>Libre + PINU-SD</i>	23,2%	7,2%
<i>Others</i>	0,5%	0,0%
<i>Abstention</i>	43,9%	13,8%
Germany	<i>Federal Elections 2017</i>	<i>Own survey 2018</i>
<i>UNION (CDU/CSU)</i>	28,0%	22,2%
<i>SPD</i>	18,5%	14,6%
<i>LEFT</i>	6,5%	7,3%
<i>GREEN</i>	6,0%	19,4%
<i>FDP</i>	5,3%	6,8%
<i>AfD</i>	8,6%	10,6%
<i>Others</i>	3,3%	4,4%
<i>Abstention</i>	23,8%	14,7%

Source: Tribunal Supremo Electoral Honduras (2017); Bundeswahlleiter (2021); own data.

To include the alternative abstention we followed the approach of Thurner and Eymann (2000). More specifically, since non-voters are often under-represented in surveys, we considered the people who expressed their intention not to vote, as well as those potential

²While the CDU is the Christ-Democratic party in 15 states, the CSU is the Christian Social party only eligible in the state of Bavaria. Both parties use to form a joint parliamentary group in the federal parliament. Thus, we treat both parties as one single party in this study.

non-voters who said that were not sure of their decision. In other words, the answers “will not vote” and “don’t know” were taken into account. It is also important to highlight that in general, people tend to lie when they are asked about their intended vote choice. According to Bannon (2003), only a small percentage of the electorate identify themselves as “non-voters”. Furthermore, he argues that even if all identified as “don’t knows” do not vote, this still does not represent the actual percentage of the electorate who actually abstains. This statement could explain the difference between the surveys and the actual election results for the alternative abstention in both countries.

Independent Variables

The independent variables were divided into:

Policy Voting: was measured by requesting the respondents to place themselves and the main parties on a scale for a series of policy issues. These were then used to calculate policy distances as the difference between the voters’ own policy position and the perceived policy position of the parties. For the alternative abstention, the minimal negative distance was considered, i.e. the distance to the nearest party. Therefore, the utility of abstaining is greater than the utility of voting and hence the voting paradox is fulfilled.

Retrospective Voting: in the surveys, questions considering socio-tropic voting, as well as pocketbook voting were asked. More specifically, the questionnaires included questions regarding the assessment of the economic situation of the countries (ELC_Country) and the personal living conditions (ELC_Own) in the present. In both cases, the answers were scaled from 1 = “Much better” to 5 = “Much worse”.

Non-policy Voting: includes a whole set of socio-economic variables such as gender, age, occupation and education. Also, capital regions were coded as dummy variables. Moreover, a variable regarding political leanings or ideology was considered in the analysis. Furthermore, to measure party loyalty, the variable Party ID was used. In particular, alternative specific dummies were created, where “1” indicates party affiliation for that specific party and “0” otherwise. In the case of the alternative abstention, the variable was set to “0” since there is no such thing as party identification for abstention.

Finally, for the analysis of voting behavior, we created the dummy Abstention, which is equal to “1” if the person decided not to vote and “0” otherwise.

Transformation of Variables In this paper we compared voting behavior in Honduras and Germany for which we used data from two different projects. Therefore, the transformation of some variables had to be made. More precisely, the policy distances and the covariate education. For the former, in the case of Germany, we transformed the policy distances for several issues into variables with 16 levels in order to make them comparable with the scales of the data from Honduras. For this aim, we proceeded as follows: first, we divided the maximum value of each issue over all parties by 16 to get the threshold values (s). Then, if the distance’s value was greater than the threshold value $s - 1$ and less or equal the threshold value s , we replace this value with the new value s . Furthermore, to compare the level of education, we created a new scale for the socio-economic variable in both countries, which can be found in tables 4.8 and 4.9 in the appendix.

Descriptive Statistics

In table 4.2 we displayed the descriptive statistics of the variables under study for Honduras and Germany. As stated before, the two samples are roughly the same size. Also, in both cases, most of the interviewees do not live in the capital region, the average age is around 50 years old and the majority of voters are employed. However, as expected, the level of education in the developed country is higher. On average, voters in Germany have at least a secondary school qualification, whereas in Honduras they do not even have a completed primary school education. Moreover, the size of the households in the developing country is much higher with more than twice the number of people living in the same household. Furthermore, in Honduras, most of the interviewees were male, while in Germany they were more equally divided between both genders. Another important dissimilarity between the countries was the assessment of the overall economic situation of the countries, as well as the personal living conditions. It is evident that voters in Germany are more satisfied with the economic growth of their country and their own economic situation, than Honduran voters.

Table 4.2.: Descriptive Statistics

<i>Variables</i>	Honduras					Germany				
	<i>N</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Min</i>	<i>Max</i>	<i>N</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Min</i>	<i>Max</i>
<i>Gender</i>	811	0.23	0.42	0	1	927	0.49	0.50	0	1
<i>Capital Region</i>	811	0.18	0.38	0	1	927	0.04	0.20	0	1
<i>Education</i>	811	1.65	0.79	1	5	927	3.17	1.07	1	5
<i>Age</i>	811	49.75	15.44	19	94	927	51.16	16.15	18	93
<i>Household Size</i>	811	5.25	2.63	1	18	927	2.19	1.10	1	10
<i>Occupation</i>	811	0.95	0.22	0	1	927	0.94	0.23	0	1
<i>ELC_Country</i>	811	2.89	0.86	1	5	927	2.38	0.69	1	5
<i>ELC_Own</i>	811	2.92	0.68	1	5	927	2.47	0.85	1	5

Source: own data

4.5. Results

4.5.1. Estimation

We developed a probabilistic voter model to determine the factors influencing voting behavior in both countries, Honduras and Germany. Since the importance of the motives differ across voters, with the data sets described in the former section, we estimated different LCM specifications to explain this heterogeneity. The LCM consists of two sub-models, the model for choices that determines which alternative is chosen and the model for classes that defines class membership. In the latter, the personal characteristics of the voters are usually included as covariates. In addition, the goodness of fit of the models was measured with the Bayesian Information Criterion (BIC) and the McFadden R^2 . The preferred models were those with the lowest BIC and the highest McFadden R^2 .

To estimate the different LCM specifications, the main parties PNH and UNION (CDU/CSU) were taken as reference alternatives, meaning that the individual specific variables with alternative specific coefficients (Predictors) are interpreted in comparison to these alternatives, respectively. Tables 4.3 and 4.4 show the two best LCM estimations for Honduras and Germany. Other models specifications are displayed in tables 4.10 and 4.11 in the appendix. These models include only the independent variables that were significant for at least one alternative and/or class chosen via the z-score test. In this section we will only analyze the best two models for each country.

In the model for choices, we can observe the factors that resulted significant when the electorate makes their decision to either vote or abstain, as well as which political party to choose. Furthermore, the alternative specific constants, that absorb all information not explicitly incorporated in the models, have a significant negative sign in most cases, with

the exception of the GREEN party in Germany, which shows positive significant coefficients in both models. Additionally, in the case of Honduras the policy issues Public Services vs Economic Growth, CCT vs Direct Transfers and Education & Health services vs Insecurity, Violence and Narcotrafficking presented significant coefficients. Similarly, in the case of Germany the policy issues Growth, Security and Education resulted significant. Since the data sets used in this research study are from two different projects, the policy dimensions examined are not identical in both countries. Nevertheless, we attempted to consider only those issues which were somehow similar in Honduras and Germany. Also, the theoretically expected negative signs in these coefficients imply that the greater the distance between a voter's policy position and the perceived policy position of a party, the less is the utility and thus the less is the probability to vote for that party or candidate. However, in the case of the alternative abstention, as the variable has also a negative sign, the greater the distance between a voter's position and the perceived position of the nearest party, the higher is the utility and thus the higher is the probability to abstain. The variable Party Identification has significant positive coefficients, which indicates that, when a voter has party affiliation for a specific party, he will be very likely to support such party. On the other hand, those voters that are not close to any political party, do not increase their utility by casting a vote for any candidate, hence, they might rather abstain. Regarding the predictors, it is interesting to note that a retrospective variable resulted significant in both models and for both countries. The positive sign of the coefficients imply that the less satisfied voters were with the current economic condition of Honduras, as well as Germany, the higher was the probability to either abstain or vote for an opposition party.

In the model for classes, the positive and significant intercepts for Honduras reflect a bias towards being part of class 1. On the contrary, in Germany the negative and significant intercepts implies a bias towards belonging to class 2. Additionally, the level of education was the only covariate that resulted significant in both models and countries. In the case of Honduras, the coefficient has a negative sign, whereas in Germany it has a positive sign. Hence, the higher the level of education the lower is the probability that the voter belongs to class 1 for the former country and to class 2 for the latter. Furthermore, the size of the resulting class memberships evidence a stronger heterogeneity in the case of Germany.

Table 4.3.: Estimation results for models 1 and 2 - Honduras

VARIABLES	Model 1				Model 2			
	Class 1		Class 2		Class 1		Class 2	
CHOICES	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>
Attributes								
<i>Abstention:(intercept)</i>	-0,8846	-1,3244	-46,7734	-2,2373*	-0,9725	-1,4564	-48,8772	-2,3363*
<i>Libre_PINU_SD:(intercept)</i>	-4,2891	-2,3396*	-28,7624	-2,2971*	-4,3423	-2,3244*	-30,3726	-2,3661*
<i>PLH:(intercept)</i>	-1,9761	-1,8972.	1,8129	0,5200	-1,8236	-1,7037.	1,4747	0,4361
<i>disPSvsEG</i>	-0,0760	-2,4014*	-0,8482	-2,5238*	-0,0586	-1,8360.	-0,8832	-2,5237*
<i>disCCTvsDT</i>	-0,0411	-1,7870.	-0,5710	-2,2458*	-0,0421	-1,8466.	-0,5853	-2,4592*
<i>disEHvsIVN</i>					-0,0934	-3,2611***	-0,1721	-0,9142
<i>Party_ID</i>	3,8117	16,8148***	14,9401	2,6430**	3,8097	16,5305***	16,0763	2,6792**
Predictors								
<i>Abstention:ELC_Country</i>	0,5033	2,4897*	10,1985	2,0032*	0,4420	2,1791*	10,0180	2,0297*
<i>Libre_PINU_SD:ELC_Country</i>	0,7766	1,4602	9,5645	2,3115*	0,7586	1,4156	10,0289	2,4033*
<i>PLH:ELC_Country</i>	0,4865	1,5661	-0,7869	-0,6012	0,4189	1,3286	-0,7804	-0,6366
CLASSES								
Covariates								
<i>classes:Intercept</i>	1,8248	3,9779***			1,8473	4,0583***		
<i>classes:Education</i>	-0,4806	-2,4032*			-0,4966	-2,4932*		
Class Shares	0,7317		0,2683		0,7307		0,2693	
Model Fit								
<i>BIC</i>	855,0221				854,4297			
<i>McFadden R²</i>	0,7096				0,7171			
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$								

Source: own estimations

Table 4.4.: Estimation results for models 1 and 2 - Germany

VARIABLES	Model 1				Model 2			
	Class 1		Class 2		Class 1		Class 2	
CHOICES	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>	<i>Coeff.</i>	<i>z-value</i>
Attributes								
<i>AfD:(intercept)</i>	-5,6941	-2,7128**	0,8037	0,5545	-6,4791	-2,3207*	0,1808	0,1482
<i>FDP:(intercept)</i>	-3,5441	-0,9572	-0,2905	-0,1784	-1,7310	-0,6496	-1,2172	-0,6239
<i>GREEN:(intercept)</i>	1,5808	2,2144*	-3,3146	-1,2397	1,7181	2,2390*	-2,7945	-1,3461
<i>LEFT:(intercept)</i>	2,8314	0,8499	-1,1113	-0,7740	4,1716	0,8683	-1,6285	-1,3110
<i>Abstention:(intercept)</i>	-2,3249	-3,3311***	-11,2606	-3,6893***	-2,4218	-3,0655**	-13,0013	-4,0114***
<i>SPD:(intercept)</i>	-5,8051	-0,5816	1,1360	0,8547	-4,6241	-0,5669	0,5671	0,5067
<i>disGROWTH</i>	-0,0157	-1,6542.	-0,0415	-3,1513***	-0,0128	-1,2272	-0,0421	-3,0537**
<i>disSECURITY</i>					-0,0383	-3,3017***	-0,0889	-5,8421***
<i>disEDUCATION</i>	-0,0346	-2,6023**	-0,4585	-8,0548***	-0,0261	-1,9139.	-0,4511	-7,5166***
<i>Party_ID</i>	2,6331	9,3515***	-3,9331	-1,3359	2,7058	9,3566***	-2,1834	-1,5635
Predictors								
<i>AfD:ELC_Country</i>	0,9920	1,3947	0,5458	0,9426	1,0623	1,1856	0,6090	1,3128
<i>FDP:ELC_Country</i>	0,6165	0,5052	0,4514	0,6962	0,1797	0,1811	0,5657	0,7872
<i>GREEN:ELC_Country</i>	-0,4064	-1,3623	1,0592	1,0738	-0,4202	-1,2735	0,8461	0,9752
<i>LEFT:ELC_Country</i>	-3,4505	-1,2227	0,7629	1,3097	-4,7175	-1,0803	0,8066	1,6666.
<i>Abstention:ELC_Country</i>	0,9151	3,6682***	0,0401	0,0358	0,8749	3,3465***	-0,0517	-0,0472
<i>SPD:ELC_Country</i>	-0,0375	-0,0095	0,1942	0,3526	-0,2566	-0,0810	0,2435	0,5416
CLASSES								
Covariates								
<i>classes:Intercept</i>	-0,4693	-1,8712.			-0,5390	-2,0743*		
<i>classes:Education</i>	0,2211	2,9095**			0,2163	2,6375**		
Class Shares	0,5567		0,4433		0,5360		0,4640	
Model Fit								
<i>BIC</i>	3168,6605				3126,7867			
<i>McFadden R²</i>	0,3764				0,3877			
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$								

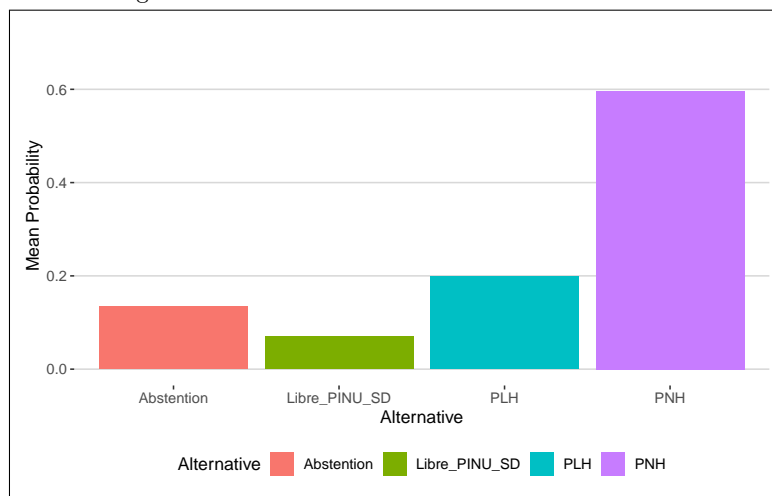
Source: own estimations

In order to test for robustness and stability of the data and the model, we performed all calculations for models 1 and 2 for both countries, and we obtained similar results. However, for simplicity, from this point forward we will only present those from the second models, the preferred ones.

4.5.2. Probabilities and Relative Marginal Effects

With the optimal models we estimated utilities and probabilities. Figures 4.1 and 4.2 show the mean probabilities for both countries and for each alternative. For Honduras, the results coincide with the general election outcomes, in the sense that they show the incumbent PNH as the party with the highest probability of winning. On the other hand, according to our estimations the German parties UNION and GREEN seem to have similar probabilities, however the actual results from the federal elections (see table 4.1) show the UNION as the clear winner.

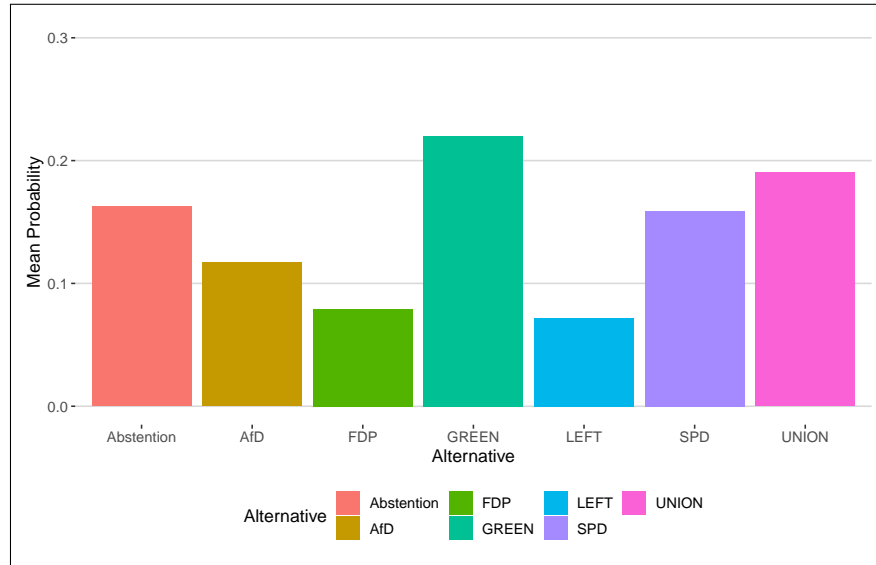
Figure 4.1.: Probabilities for alternatives in Honduras



Source: own presentation

4. *The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany*

Figure 4.2.: Probabilities for alternatives in Germany



Source: own presentation

Going further in detail, in table 4.5 we can see the groups of voters with higher tendency to abstain in both countries. More precisely, in Honduras, the young, employed, uneducated and left oriented voters, as well as those living in other regions than the capital region have a lower motivation to cast a vote. Accordingly, in Germany, the men, unemployed and educated people have a greater probability of abstaining in the elections.

Table 4.5.: Probability of Abstaining by Groups

	Honduras			Germany		
	mean	mean	p-value	mean	mean	p-value
<i>Women vs. Men</i>	13.51%	13.49%	0.9900	15.11%	17.38%	0.0021
<i>Young vs. Old</i>	15.60%	12.57%	0.0340	16.33%	16.23%	0.9092
<i>Employed vs. Unemployed</i>	13.67%	10.04%	0.0900	16.04%	19.84%	0.0154
<i>Educated vs. Uneducated</i>	10.10%	13.75%	0.0360	16.71%	15.25%	0.0485
<i>Capital Region vs. Other</i>	9.24%	14.42%	0.0002	15.02%	16.32%	0.5077
<i>Left vs. Right</i>	21.92%	9.92%	0.0000	15.83%	15.45%	0.7162

Source: own estimations

As mentioned in the methodology, the probabilistic voter model is a logistic regression model. Therefore, its coefficients only allow to measure the direction of the impact, but to evaluate the magnitude of such impact, marginal effects had to be calculated. In the case of the LCM, marginal effects can only be calculated for the variables included in the model for choices, therefore, the covariate was not taken into account. Furthermore, to understand how people choose a certain party/candidate, as well as how they decide to

vote or abstain, we assessed the relative importance of the three voting motives by calculating the relative marginal effects (RME) of each component for the incumbent and for the alternative abstention in both countries. From our optimal models it is evident that all voting motives are significant determinants in the voting decision process. However, as presented in graph 4.3 and graph 4.4, the importance of the voting components varies significantly. More precisely, in Honduras, those who abstain choose more policy and non-policy oriented than those who decide to support the incumbent party, whereas the people who vote for PNH decide more retrospectively oriented. On the contrary, in Germany, those who abstain choose more retrospectively oriented when compared to those who vote for the coalition government, while the people who vote for the incumbent decide more policy and non-policy oriented. When looking at our optimal model for Honduras (see table 4.3), the non-policy variable Party Identification resulted highly significant, which implies that this is an important factor in the voting decision process in this country. Furthermore, according to our data, almost 70% of abstainers do not feel close to any political party. Therefore, we might argue that most people who do not have party loyalty in this developing country do not feel motivated to cast a vote. This in turn supports the findings of Heath (1985) and Clarke et al. (2004) who recognized party identification as one of the most important predictor variables for explaining voter turnout. In the case of Germany, the optimal model (see table 4.4) shows that the retrospective variable ELC_Country is highly significant for the alternative abstention in the class 1. In other words, educated voters who evaluate the government retrospectively and are dissatisfied with the current economic condition of the country have a higher tendency to refrain from voting. The idea that this factor might partially explain the phenomenon of abstention in this developed country is supported with the findings from Soederlund (2008) who explained that political parties could lose support if they are not responsive to the electorate, as dissatisfied voters might either switch parties or choose to abstain.

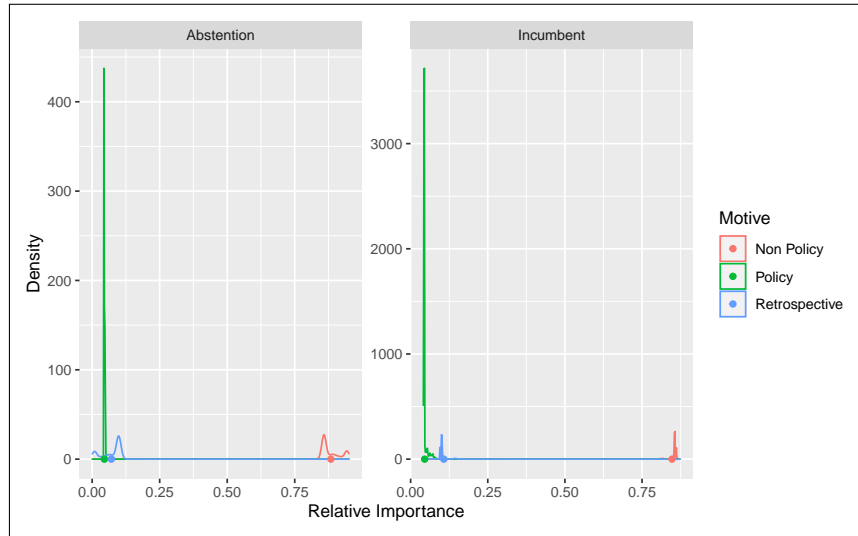
4.5.3. Government Performance Indicators

Accountability

Accountability implies setting clear goals and targets, as well as being responsible for the delivery of them and accepting the sanctions that might come when there is a lack of compliance with the commitment previously acquired. In political science, governments

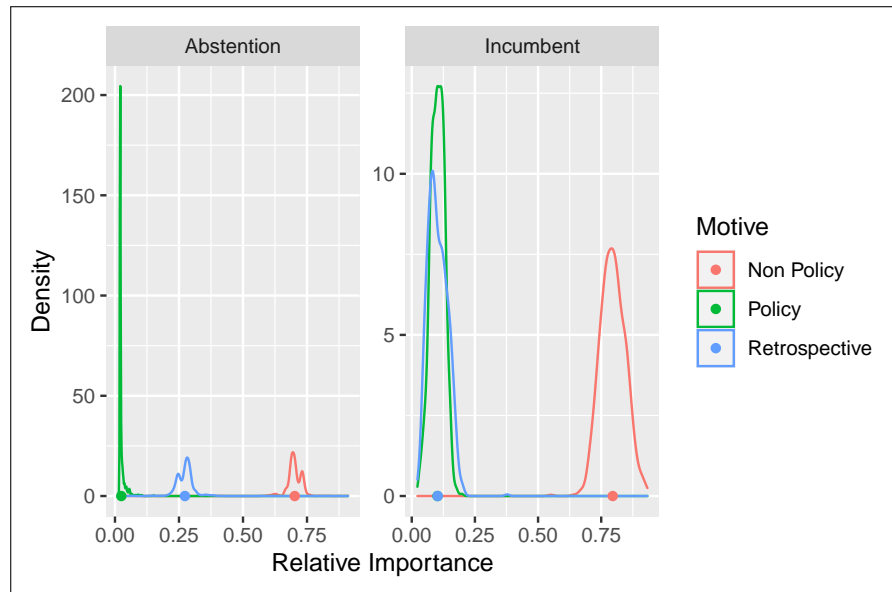
4. *The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany*

Figure 4.3.: Relative importance of voting motives in Honduras



Source: own presentation

Figure 4.4.: Relative importance of voting motives in Germany



Source: own presentation

act accountable when they implement policies serving the needs and desires of voters rather than favoring special interest of lobbying groups or intrinsic policy preferences of politicians. This is achieved when the electorate makes its decision more policy and retrospectively oriented. Based on the estimated models, government accountability (GA) indices were calculated for the incumbent and the alternative abstention in Honduras, as well as in Germany and the results are presented in table 4.6. In both countries the

low accountability of the governments with regard to their electorate suggests that the function of elections of holding accountable the governments is not really fulfilled in any of these countries. However, as expected, it is important to highlight that the GA indices are higher in the developed country. Moreover, even though the relative importance of the voting motives differ in both countries, those who abstain have a significantly higher GA index in both cases. This indicates that they play a more important role in the political processes of their respective countries.

Table 4.6.: Accountability Index

	Honduras	Germany
<i>Incumbent</i>	14.99%	20.06%
<i>Abstention</i>	16.65%	21.87%

Source: own estimations

Capture

Even if a government acts accountable, electoral competition can still be biased in favor of special interests groups at the expense of the majority of voters. To measure the political weight of certain groups of the electorate, government capture (GC) indices were calculated. In table 4.7 GC indices are displayed for voters and abstainers in both countries. In Honduras, abstainers capture all voters, whereas in Germany, the incumbent supporters and voters in general capture the non-voters. This means that, from the perspective of the welfare of the society, in the case of Honduras, abstainers are important and consequently, could incentive the government to choose and implement more efficient policies if they decided to cast a vote. On the other hand, in Germany, non-voters have a lower political weight as the policy component is not important to them and therefore, should be ignored. On the contrary, from the incumbents' perspective, when non-voters have a high political weight and are responsive to policies, the governments gain when the levels of abstention are high.

Table 4.7.: Capture Index

	Honduras	Germany
<i>Incumbent Voters vs Abstainers</i>	0.3565	1.1149
<i>Voters vs Abstainers</i>	0.3656	1.0232

Source: own estimations

4.6. Conclusion

Voting is the most crucial mechanism that establishes legitimacy of political agents' actions in representative democratic systems. Nevertheless, even in countries with well functioning democracies, not all people with the right to vote in an election decide to cast a vote. Some people consider voting as a civic duty of every citizen, whereas others think that voting is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. In this sense, even though the voting population has been increasing globally, it is important to highlight that voter turnout has declined worldwide in recent decades, and Honduras, as well as Germany are not exceptions.

From a political science point of view, many researchers consider that electoral abstention diminishes the strength of a country's democracy and undermines the legitimacy of elected leaders. Others, on the other hand, explain that a high number of abstentionists does not necessarily imply any danger to democracy. Examples of this are Canada, Ireland and Switzerland, where abstention levels were higher than 30% in their last electoral processes and are still considered "Full democracies". Additionally, free-riding could play a crucial role in determining voter's participation behavior. More specifically, members of a majority group are often too discouraged to participate as they have greater incentives to free-ride. In political science it is commonly assumed that parties/candidates seek to choose the policy position that maximizes their expected vote share. Therefore, abstention might be considered a serious democratic problem that causes inequality as non-voters are not being politically represented. Politicians give more importance to the interests of those who decide to cast a vote, whereas the interest of abstainers are frequently ignored. In other words, it is usually assumed that non-voters have a lack of knowledge and interest in politics, therefore, are not important for the policy making process and, consequently, cannot impact the performance of the government. Nonetheless, theoretical work has also explained that the relative political weight of social groups is what defines their political influence. Thus, in a democracy, the relative political weight of abstainers could also define their level of importance in the policy making process.

The purpose of this research study was to identify the factors affecting people's voting decision in these two countries. Furthermore, we wanted to analyze the impact of this decision on the performance of the respective governments. Additionally, we were looking

to determine the importance of abstainers in the policy making processes in both countries and identify if there were differences between developed and developing countries. To this end, we estimated a series of probabilistic voter models applying a latent class approach and using data from Honduras and Germany. Then, to assess the relative importance of the three voting motives we calculated the RMEs of each component for the incumbent and for the alternative abstention in both countries. Moreover, to evaluate whether the governments act accountable when they implement the policies that should serve the needs and desires of voters and to measure the political weight of certain groups of the electorate, government performance indicators were developed.

We found that, in both countries, the three voting components are significant factors when the electorate makes their decision to either vote or abstain, as well as which political party to choose. More specifically, different policy issues, party loyalty and the level of satisfaction with the current economic condition of the country are important determinants in the decision making process of voters. Nonetheless, the importance of the different voting motives varies significantly. In Honduras, those who abstain choose more policy and non-policy oriented than those who decide to support the incumbent party, whereas in Germany, those who abstain choose more retrospectively oriented when compared to those who vote for the coalition government. The high importance of the non-policy component in both countries results in low accountability of the governments with regard to their electorate. However, as expected, it is important to highlight that the GA indices are higher in the developed country. We also found that those who abstain have a significantly higher GA index when compared with those who support the incumbent parties. In addition, in Honduras, abstainers capture all voters, whereas in Germany, non-voters are being captured by those who decide to participate in the elections.

We conclude that, although all voting motives resulted significant when deciding whether to participate or not in elections, both in developing and developed countries, the importance of these motives varies. For instance, in both cases the non-policy component is the most significant one, which implies that people with no party loyalty might not feel motivated to cast a vote. On the other hand, a less relevant factor that could also partially explain the phenomenon of abstention is the retrospective component. Here, if voters are dissatisfied with the current economic condition of the country, they have a higher tendency to refrain from voting. Furthermore, the low importance of the policy and the retrospective components suggests that the function of elections of holding accountable the

governments is not really fulfilled in any of these countries. Nevertheless, abstainers play a more important role in the political processes than those who chose the government party. What differs in both countries is the political weight of abstainers. For the developed country, our results support the literature that abstainers should be ignored since they do not seem to respond to policies as they showed a low political weight. Nonetheless, in the case of the developing country, our results contradicted the literature. They demonstrated that, in this country, non-voters seem to have the “power” to incentive the government to choose and implement more efficient policies if they decided to cast a vote as they have a higher political weight than voters. Hence, from the incumbents’ perspective, if non-voters have a high political weight, it is clear that governments gain with high levels of abstention.

Finally, from our datasets it is evident that the level of education in developed countries is much higher than in developing countries. On the other hand, in developing countries higher levels of abstention are usually observed. Therefore, given the importance that abstainers could have for the policy making process of a country, in future research it could be interesting to incorporate the levels of education and/or political knowledge in the analysis of the electorate’s decision to participate.

Appendix

Table 4.8.: Transformation of the education variable - Honduras

Old Scale	New Scale	Meaning
0	1	None
1	1	Preschool
2	1	Adult literacy
3	2	Primary
4	3	Secondary common cycle
5	4	Secondary diversified cycle
6	5	Superior Non-University
7	5	Superior University
8	5	Postgraduate

Source: own estimations

Table 4.9.: Transformation of the education variable - Germany

Old Scale	New Scale	Meaning
1	1	Leaving school without a qualification
2	2	Elementary school, secondary school leaving certificate
3	3	Middle school leaving certificate, secondary school qualification
4	3	Polytechnic high school with 10th (before 1965 8th) grade
5	4	Completion of a technical college, subject-specific university entrance qualification
6	4	Abitur, general higher education entrance qualification
7	5	University degree, technical college degree

Source: own estimations

4. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany

Table 4.10.: Estimation results for models 3 and 4 - Honduras

VARIABLES	Model 3				Model 4			
	Class 1		Class 2		Class 1		Class 2	
CHOICES	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value
Attributes								
<i>Abstention:(intercept)</i>	-1,3581	-1,8874.	-13,4335	-0,8827	0,1240	0,1042	-7,6117	-0,7890
<i>Libre_PINU_SD:(intercept)</i>	-6,3378	-2,6846**	-4,5488	-1,8009.	-3,7611	-1,2131	-4,9585	-2,4861*
<i>PLH:(intercept)</i>	-1,4858	-1,2633	1,3803	0,4869	1,3353	0,7880	-0,9656	-0,5224
<i>disInequality</i>	-0,0496	-1,6320	-0,5091	-2,4027*				
<i>disEHusIVN</i>	-0,1042	-3,1384***	-0,1347	-0,9640	-0,1168	-3,1273***	-0,0750	-1,1059
<i>disCCTvsDT</i>	-0,0287	-1,1254	-0,4669	-2,4932*	-0,0190	-0,5453	-0,2135	-2,4289*
<i>disCREDIT</i>	-0,0589	-2,3201*	-0,4567	-1,9409.	-0,0581	-2,0123*	-0,2306	-2,0764*
<i>disTA</i>					-0,0410	-1,2927	-0,2198	-2,3549*
<i>disIdeology</i>	-0,0514	-2,0885*	0,0431	0,9061	-0,0687	-1,8095.	-0,0071	-0,2445
<i>Party_ID</i>	3,7014	14,3271***	13,1841	2,7136**	4,3908	9,5072***	4,6169	4,9050***
Predictors								
<i>Abstention:ELC_Country</i>	0,5215	2,2389*	-3,7592	-0,8220				
<i>Libre_PINU_SD:ELC_Country</i>	1,3731	2,1162*	1,4357	1,8905.				
<i>PLH:ELC_Country</i>	0,2830	0,7799	-0,6456	-0,6570				
<i>Abstention:ELC_Own</i>					0,2502	0,6788	-1,0630	-0,3436
<i>Libre_PINU_SD:ELC_Own</i>					0,6652	0,7271	1,4056	2,2533*
<i>PLH:ELC_Own</i>					-0,5176	-0,9588	-0,0093	-0,0157
CLASSES								
Covariates								
<i>classes:Intercept</i>	1,2509	2,8202**			1,0345	2,4170*		
<i>classes:Education</i>	-0,3712	-1,9796*			-0,4030	-2,0694*		
<i>Class Shares</i>	0,6521		0,3479		0,5901		0,4099	
Model Fit								
<i>BIC</i>	861,1345				877,2283			
<i>McFadden R²</i>	0,7488				0,7496			
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$								

Source: own estimations

4. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany

Table 4.11.: Estimation results for models 3 and 4 - Germany

VARIABLES	Model 3				Model 4			
	Class 1		Class 2		Class 1		Class 2	
CHOICES	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value
Attributes								
<i>AfD:(intercept)</i>	-0,8972	-1,3949	-9,5556	-0,6141	-1,6858	-2,679**	-10,7283	-0,5724
<i>FDP:(intercept)</i>	-1,3948	-2,1283*	-7,5293	-0,6806	-1,5385	-1,8658.	1,8156	1,1814
<i>GREEN:(intercept)</i>	-0,2687	-0,3670	0,9638	0,5988	-0,3628	-0,6070	-2,8344	-0,9873
<i>LEFT:(intercept)</i>	-2,1890	-2,9230**	6,6440	1,3500	-2,6860	-4,1399***	-17,1775	-1,7562.
<i>Abstention:(intercept)</i>	-13,7948	-1,5516	-3,1317	-2,5390*	-19,3488	-0,9790	-2,0930	-1,9583.
<i>SPD:(intercept)</i>	-2,0533	-2,4567*	1,3988	1,0825	-3,7927	-3,4801***	2,4076	2,3082*
<i>disEDUCATION</i>	-0,2684	-7,4976***	-0,0111	-0,6142	-0,2697	-6,2467***	0,0048	0,2716
<i>disSECURITY</i>	-0,0748	-6,1725***	-0,0243	-1,2981	-0,0792	-5,9656***	-0,0074	-0,4351
<i>disSOCIALSECURITY</i>	-0,2472	-7,2397***	-0,1552	-2,9241**	-0,2425	-6,8063***	-0,1505	-3,0055**
<i>disGLOBALJUSTICE</i>	-0,1675	-5,7124***	0,0223	0,9571	-0,1857	-5,8887***	0,0167	0,7775
<i>disCLIMATE</i>	-0,1427	-6,0315***	-0,1399	-2,8425**	-0,1658	-6,4667***	-0,0637	-1,4666
<i>Party_ID</i>	0,2296	1,0363	3,2359	6,6067***	0,2509	1,0755	3,0100	6,3568***
Predictors								
<i>AfD:ELC_Country</i>	0,4777	1,8902.	0,9409	0,1498				
<i>FDP:ELC_Country</i>	0,3087	1,1588	1,2855	0,3205				
<i>GREEN:ELC_Country</i>	-0,0406	-0,1457	-0,2366	-0,3507				
<i>LEFT:ELC_Country</i>	0,5179	1,7680.	-5,8303	-1,2670				
<i>Abstention:ELC_Country</i>	-2,5464	-0,6233	1,4428	3,1105***				
<i>SPD:ELC_Country</i>	0,4566	1,4683	-0,1350	-0,2436				
<i>AfD:ELC_Own</i>					0,8107	3,3206***	1,4631	0,1984
<i>FDP:ELC_Own</i>					0,3105	0,9893	-1,2634	-1,6042
<i>GREEN:ELC_Own</i>					0,0595	0,2238	1,1538	1,4195
<i>LEFT:ELC_Own</i>					0,7411	2,8862**	4,2943	2,0948*
<i>Abstention:ELC_Own</i>					-1,5613	-0,1993	1,2075	3,2059***
<i>SPD:ELC_Own</i>					1,0834	3,0191**	-0,5701	-1,2946
CLASSES								
Covariates								
<i>classes:Intercept</i>	-0,3827	-1,1277			-0,3214	-1,0203		
<i>classes:Education</i>	0,3446	2,9806**			0,3016	2,9448**		
Class Shares	0,6652		0,3348		0,6499		0,3501	
Model Fit								
<i>BIC</i>	2935,8041				2915,1301			
<i>McFadden R²</i>	0,3647				0,3948			
*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$								

Source: own estimations

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uniformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economy—first evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

-
- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a.
URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras.
LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nylund, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinary Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters' perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

5. Chapter

How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America

Andrea Lendewig, Daniel Diaz, Svetlana Petri and Christian Henning

Paper prepared to be submitted at the “World Development” Journal

Abstract

Even in countries with well functioning democracies, not all people with the right to vote in a presidential election decide to cast a vote. In order to study the importance of abstention in presidential elections in Africa and Latin America, data from Senegal and Honduras was analyzed. These countries have experienced a decline in the voter turnout over the past elections, meaning that their party systems are somehow failing to engage voters in recent years. The purpose of this paper is to understand how people choose a certain party or candidate, as well as how they decide to either vote or abstain. Moreover, we are looking to determine whether non-voters could motivate the governments to design and implement efficient policies. To achieve this, we estimated nested multinomial logit models including the alternative Abstention. Then, to evaluate government performance, we derived indicators for accountability and capture. We concluded that, in these two developing countries, one of the factors that voters take into account when deciding to either vote or abstain, is their level of satisfaction with the performance of the president. Additionally, the incumbent is held more accountable when all non-government supporters are considered. Furthermore, since in both countries, the incumbents' voters are being captured by all other groups within the electorate, we could argue that abstainers, as well as those who have chosen an opposition party/candidate can motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. Finally, contrary to the many theoretical works that have been published in political science explaining the lack of importance of abstainers, our results demonstrate that they can actually develop the power to incentive a higher performance of the government as they are clearly responsive to policies.

5.1. Introduction and Literature Review

To reduce poverty and undernutrition and increase economic growth in a country, the quality of governance is important as it can guarantee the implementation of efficient policies. To achieve this, electoral competition in democratic systems should promote a high performance of the incumbent by reflecting the interests of the whole society and serving to control the government. However, in reality, electoral competition often leads to policy failure due to low government accountability and high government capture.

Even in countries with well functioning democracies, not all people with the right to vote

in a presidential election decide to cast a vote. Some people consider voting as a civic duty of every citizen in a democratic country. On the other hand, others think that voting is often inconvenient, time-consuming and may even seem pointless, because the probability that the vote of one person will make a difference in the outcome is infinitesimally small. According to Solijonov (2016), even though the voter population has been growing globally and the number of countries that hold elections have increased, the global average voter turnout has decreased significantly over the past decades. Furthermore, Stockemer (2015) found that developed countries have a higher citizens' participations at elections than developing countries, which implies that development by itself leads to higher turnout. These statements correspond to the situation in Senegal. Despite the fact that Senegalese electoral processes have been considered relatively fair compared to its neighbor countries, there has been a decline in the voter turnout over the past elections. Similarly, in Honduras the level of abstention has increased during the past years. One of the reasons seems to be that many people do not trust the political parties and candidates. Also, the country has experienced a massive international migration. The purpose of this research study is to evaluate the importance of abstainers in the policy making process in Africa and Latin America. More specifically, we are looking to determine whether non-voters could motivate the governments to design and implement efficient policies. To this end, data from Senegal and Honduras was used for the analysis.

Serious scholarly attention has been given to the study of voter behavior. Campbell et al. (1960) differentiate between long-term forces (like, party identification) and short-term forces (such as the individual perception and assessment of candidates and issues). On the other hand, Lazarsfeld et al. (1968) emphasize that voters' economic status, religion, place of residence, profession and age have an influence on their voting decision. Also relevant is the theory of rational voting (Downs, 1957) which assumes that voters gain utility from implemented policies. Furthermore, many empirical research have been carried out to analyze the relative importance of different voting motives. For example, Davis et al. (1970) and Enelow and Hinich (1984) study the policy oriented component, whereas Miller and Shanks (1996) focus on the non-policy voting motive and Fiorina (1981) on retrospective voting.

Other important amount of research have been devoted to the analysis of government performance, for instance Bailey (1999) and Stevens (2005). There is also a few amount of research studies combining both topics. Henning et al. (2014) and Seide (2014) measure

the relative importance of different voting motives and evaluate their impact on government accountability and government capture. Moreover, Keefer and Khemani (2005) and Bardhan and Mookherjee (2002) theoretically analyze the impact of voter behavior on government performance. They argue that less electoral competition implies incentives for the government to implement policies that do not correspond to the needs and desires of the majority in the society. Furthermore, they identify three aspects that support political market imperfections: asymmetric voter information, social polarization and missing accountability of political actors. Baron (1994) and Grossman and Helpman (1996) explain that distorted electoral competition is the result of imperfectly and asymmetrically informed voters. The former also distinguishes between informed voters, who choose policy oriented, and uninformed voters, who decide based on non-policy indicators. With a lack of detailed knowledge, people use proxies to assess politicians, such as easily observable policies or previously existing party loyalties. In this sense, Khemani (2004) suggests that policy actions that are easily observable increase the closer a country is to an Election Day, and Bardhan and Mookherjee (2002) assume that a higher level of voter loyalty reduces electoral competition what leads to a low government performance. Additionally, since only few voters have sufficient information to evaluate the level of efficiency of policies, and benefits may not be seen until several years after the implementation, politicians have incentives to focus on policies that are highly visible even for uninformed voters. According to Keefer and Khemani (2005), another mechanism by which voter behavior impacts government performance is the social polarization, where due to the existence of heterogeneous groups, inefficient policies are executed. They also highlight the inability of politicians to make credible promises in elections as an additional factor for imperfect political markets.

Although important theoretical work has been published regarding the impact of voter behavior on government performance and some empirical evidence concerning such impact have been carried out, the incorporation of the aspects of abstention/participation in voter behavior study is not very common. Downs (1957) explained that citizens choose the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain. Later, Riker and Ordeshook (1968) studied the paradox of voting and developed a calculus in which it is rational for those who vote to do so and it is equally rational for those who do not vote not to do so. To this end, they included an additional component in the utility function that contains positive effects on the expected utility of

voting. Thus, they concluded that “the behavior of most people can be described by a theory of rational decision-making”. Then, Riker and Ordeshook (1973) conceptualized the citizen’s choice as a two-stage process, where the voter first identifies a preferred candidate and then decides to vote or abstain. Further, Thurner and Eymann (2000) proposed a model where they consider the simultaneous choice among parties and the option abstention. The latter, as well as Plane and Gershtenson (2004) have also studied, by means of spatial models of voting, indifference and alienation towards the candidate or party as reasons affecting the individual probability of voting. Adams et al. (2006) also incorporated alienation from the candidates and indifference between the candidates as motivations for citizens to refrain from voting. They concluded that this decision is largely policy-based as it is affected by their evaluations of the candidates’ policies.

In addition to the inclusion of the alternative abstention in the analysis of voting behavior, the importance of abstainers from a political science point of view is of interest. More specifically, can abstainers develop power? Is abstention an incentive for higher government performance? In other words, are they important for the policy making process and can they impact the performance of the government?. Voting is considered the most important act of political participation in a democracy. Some researchers even believe that voting should be compulsory in order to increase voter turnout as abstainers are not being politically represented. Lijphart (1997) argues that low voter turnout is a serious democratic problem because it causes inequality as politicians give more importance to the interests of those who decide to cast a vote. Similarly, Hooghe and Pelleriaux (1998) demonstrated that abolishing compulsory voting in Belgium would lead to more inequality, since it would lead to an overrepresentation of highly educated citizens. In addition, voters and non-voters often represent different interests. According to Stockemer and Blais (2019), in national and European elections, abstainers have low levels of knowledge and interest in politics, as well as low sense of civic duty. In political science, it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored by politicians and, consequently, cannot impact the performance of the government. In this sense, Pacek and Radcliff (1995) argued that turnout rates may have profound policy consequences. Furthermore, Hicks and Swank (1992) explained that electoral turnout is important for the share of national incomes that is spent on social welfare programs. On the other hand, Quaile Hill and Leighley (1992) and Leighley and Nagler (1992) reported a class bias in

US state electorates. Moreover, they provided evidence that electoral participation is important in the formulation of social welfare policies and that the nature of such policies is determined, at least in part, by the composition of the electorate. Also, Uhlaner (1989) argued that groups of voters, who share political interests, play an important role in the political process as they motivate candidates to shift their position in the policy space towards the preferred position of the members of this group. Finally, the theory of rational voting (Downs, 1957) assumes that political parties seek to choose the policy position that maximizes their expected vote share. In this regard, Burnham and A James (1987) concluded that “if you don’t vote, you don’t count” and, according to Wattenberg (2002), “politicians are not fools; they know who their customers are”, therefore they should not worry about non-voters.

In this context, this paper contributes to the literature by combining theoretical and empirical work regarding the inclusion of abstainers in the voter behavior analysis and their impact on government performance. In this regard we proceed as follows: First, we shortly review some literature regarding the paradox of voting. Second, we explain the theoretical framework of voting behavior, abstention and government performance. Then, we present the developed nested multinomial logit model originally proposed by McFadden (1977) as a generalization of the multinomial logit model based on the idea that some alternatives may be joined in several groups or nests. Afterwards, we give an overview of the datasets and a description of the variables used. The following section shows the empirical estimations and results for the abstention/participation models of the multi-party systems in Senegal and Honduras. Finally, we present a summary and our conclusions of the research.

5.2. Voting Paradox

Voting implies a benefit and a cost to the voter. A benefit is obtained when the voter changes the outcome of the election to what he desires. However, the probability that one vote would change the outcome of the election (the voter’s pivot probability) is very low so the expected benefit is also small. On the other hand, the costs of the act of voting itself include time, money and resources. Additionally, voters have to become sufficiently informed to vote in line with their own interests and this is also costly. Looking at this, if voters act rationally, they should abstain. However, according to the voting paradox, electoral turnout is relatively high even though the costs will normally exceed the expected

benefits. One explanation for this is the sense of civic duty.

Many researchers have been studying the paradox of voting. Riker and Ordeshook (1968) developed a calculus of voting in which it is rational for those who vote to do so and it is equally rational for those who do not vote not to do so. According to Owen and Grofman (1984), in a supposed scenario where all voters assign positive costs to voting, if all decide to vote, each will find their vote useless as it is highly unlikely to affect the outcome. On the other hand, if no one votes, then the vote becomes extremely valuable and thus, the paradox occurs. The implications of non-voting for democracy have been studied by authors like Bennett and Resnick (1990) who found that non-voting has an impact on some domestic policies in the United States, especially spending on welfare state programs. Additionally, Kirchgässner (1992) deals with voting decisions, which he considers to be individual decisions that are irrelevant for the individual. However, the collective decision is relevant for all individuals. Further, he argues that following social (moral) rules, when they are deviated from the self-interest, implies a cost that is rather low in voting decision. Later, Grofman (1995) shows that the correlation between turnout and closeness of the elections can be positive or negative. This depends on the assumptions about the way voters form their expectations regarding whether or not their vote will be decisive. However, Myerson (1997) considered an example of a large voting game to illustrate the advantages of using a Poisson model of population uncertainty. He found that the expected turnout cannot be large if the act of voting is costly for all voters. On the contrary, Blais (2000) concluded that the rational choice model of voting does not appear to work. People who are aware that the probability of their vote being decisive is tiny should rationally abstain. However, most people vote in national elections, and most of them vote regularly.

Kooreman and Haan (2003) identified another voting paradox where, due to free riding of potential voters facing voting costs, the alternative with the highest number of supporters could lose a binary election. Bannon (2003), on the other hand, explains that political parties may target the less motivated voters with campaign techniques to encourage participation. This in turn could make campaigns more efficient and effective. Furthermore, Krajina and Prochazka (2017) studied the reasons and motives for voting and found that people decide to vote mainly to affect the outcome and to express a political view.

5.3. Theoretical Framework

5.3.1. Voting Behavior

Voting is the most crucial part of representative democratic systems since legitimacy of political agents' actions depends on voters' support. Theories of political economy (Brock and Magee, 1978; Downs, 1957; Grossman and Helpman, 1996; Grossman, 1994) assume that voters, interest groups¹, as well as political agents are rational decision makers. Thus, they seek to maximize their utility.

Let S denote the set of $i = 1, 2, \dots, n$ voters, G a set of $k = 1, 2, \dots, K$ parties and V the benefit. Thus, citizen i votes for the party k if it holds

$$V_{ik} > V_{ik'} \quad (5.1)$$

In general, there are three motivational components that can drive the choice of a voter. Accordingly, V_{ik} is composed of three sub-utilities. The first motive of voting is *policy-oriented* and refers to the work of Anthony Downs (1957), where the political platforms of the parties are evaluated regarding the expected utility if the policy positions then result in political actions that will be carried out by the government. Formally, political parties/candidates and voters take a position in $M \geq 1$ policy dimensions. The idea of spatial models is based on the work of Hotelling (1929), where voters choose a party/candidate they consider close to their own position (Adams et al., 2005; Enelow and Hinich, 1984). Let x_{im} denote the policy position of a voter and c_{ikm} a party's/candidate's perceived position in the dimension m . The weight of this dimension is μ_m . Thus, the first sub-utility is as follows:

$$V_{ik}^{POL} = - \sum_m \mu_m \sqrt{(x_{im} - c_{ikm})^2} \quad (5.2)$$

The second sub-utility is also related to policy, but not to the concrete position. More specifically, governmental performance of the incumbent party is evaluated. In this sense, voters use observable indicators or the satisfaction with the situation in a certain policy domain. Consequently, they vote for the incumbent party if they are satisfied with the party's performance. On the contrary, if this process of *retrospective voting* (Fiorina, 1981) leads to a negative evaluation, they rather vote for an opposition party. Let z_{ij} denote the

¹In the following, we will focus on voters and parties.

evaluation of issue j and θ_j as the corresponding weight, then

$$V_{ik}^{RETRO} = \sum_j \theta_j z_{ij} \quad (5.3)$$

refers to the retrospective voting sub-utility.

Furthermore, voters decide based on *non-policy* motives. While a new political culture (Achterberg, 2006) became more important in the last years, socio-structural class voting (Schoen, 2014), i.e. the influence of social and economic voter characteristics, is still important. Moreover, loyalty to a party can influence the decision at the ballot box (Bartels, 2000). This also applies for candidates' or party leaders' characteristics (Schofield, 2007). The corresponding sub-utility

$$V_{ik}^{NONPOL} = \sum_s \varphi_s r_{is} + \sum_m \varphi_m o_{mk} \quad (5.4)$$

comprises the characteristic s of a voter i denoted as r_{is} (weighted with φ_s), as well as o_{mk} denoting party k 's non-policy characteristic m (and φ_m as the corresponding weight).

All three kinds of voting motives can be summed up resulting in a single approach that unifies both, the behavioralist's perspective on voting, as well as the spatial-modeling framework (Adams et al., 2005). Thus, the overall utility of party k for voter i is:

$$V_{ik} = V_{ik}^{POL} + V_{ik}^{RETRO} + V_{ik}^{NONPOL} \quad (5.5)$$

5.3.2. Abstention

Participating in elections is - like the voting decision for a party - driven by benefits and costs. Clearly, a voter's benefit increases if he is able to change the outcome of an election in his preferred direction, i.e. making his favored party the election's winner. This benefit gained from voting is measured by multiplying the policies of the candidates B with the probability P that a single voter changes the outcome of an election. However, this probability P is very low, especially if the electorate is large. Thus, the benefit is comparatively small, while the costs C of the act of voting are larger since they include time and other resources like money. Additionally, making an informed choice based on policy issues implies information costs to guarantee that the vote is given to the party

that increases the benefit. Hence, rational decision makers would refrain from voting instead of participating at an election as the costs will normally exceed the expected benefits. Nevertheless, electoral turnout is relatively high in most democratic countries. Following Riker and Ordeshook (1968), the decision to vote or to abstain can be explained by the calculus of voting. In addition to the costs of voting, the probability to change the outcome and the expected benefit of turnout, they included an extra component in the utility function which has further positive effects, for example: Voting as a sense of civic duty D .

$$R = PB - C + D \quad (5.6)$$

Hence, a voter participates in the elections when their total expected utility R is greater than zero.

In addition to the costs involved and the low probability of being a “game changer” in terms of election results, two other aspects might explain abstention: *alienation* and *indifference*. In a broader sense, political alienation can be conceptualized as “attitudes of estrangement from the political system” (Olsen, 1969). Also, Thurner and Eymann (2000) argued that, alienation in the context of elections, corresponds to the perceived distance to the most preferred party. In other words, the further away this party’s perceived position is from a voter’s ideal point, the higher the probability that this voter will not vote in the elections. In contrast, indifference refers to problems in distinguishing between competing parties, where citizens are not able to recognize one party’s platform that is closer to his preferred position (Plane and Gershtenson, 2004). Here, the more difficult it is for citizens to identify a real difference between the parties, the higher is the probability of abstaining.

5.3.3. Government Performance

According to Henning et al. (2018), parties/candidates choose their policy platforms in order to maximize their vote share S_k . Thus, the expected vote share of a party/candidate k is as follows:

$$S_k = \frac{1}{n} \sum_i P_{ik} \quad (5.7)$$

where n denotes the total number of voters and P_{ik} stands for the probability that a voter i chooses the alternative k .

In a scenario where voters choose policy oriented, they will evaluate the different alternatives based on their policy oriented utility component, i.e. they will choose the option that offers them the highest utility. Consequently, parties/candidates will choose their position on different policy dimensions based on the ideal points of such voters. Nevertheless, if voters choose non-policy oriented, parties/candidates will choose their platforms considering the preferences of interest groups, who in turn will deliver contributions that will be used to finance electoral campaigns in order to influence the behavior of voters (Magee et al., 1989; Grossman and Helpman, 1996).

The theoretical work of Keefer and Khemani (2005) studies the impact of voter behavior on the performance of the government. In particular, the lack of information makes voters base their electoral decision on non-policy indicators. Consequently, politicians have less incentive to provide public goods that satisfy the needs of the majority of society (i.e., low government performance). In other words, due to imperfect information, citizens cannot properly evaluate the delivery of public goods by the government, so it is encourage to serve special interests. In this sense, by assessing the relative importance of the different voting motives, the implications of voter behavior for government performance can be measured.

To calculate the relative importance of the voting motives, the marginal effects (ME) of the independent variables must be first estimated to determine how sensitive are voters to changes in *policy* (P), *non-policy* (NP) and *retrospective* (R) components.

$$ME_{GK} = \frac{\partial P_{iG}}{\partial K} \quad (5.8)$$

and

$$ME_G^P = \sum_{K \in P} |ME_{GK}| \quad (5.9)$$

$$ME_G^{NP} = \sum_{K \in NP} |ME_{GK}| \quad (5.10)$$

$$ME_G^R = \sum_{K \in R} |ME_{GK}| \quad (5.11)$$

where G refers to the governmental party and K are the different independent variables. Then, to assess the relative importance of the different voting motives, relative marginal

effects (RME) are estimated by comparing the absolute marginal effect of each component to the sum of all ME .

$$RME^P = \frac{ME_G^P}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (5.12)$$

$$RME^{NP} = \frac{ME_G^{NP}}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (5.13)$$

$$RME^R = \frac{ME_G^R}{ME_G^P + ME_G^{NP} + ME_G^R} \quad (5.14)$$

Clearly, the sum of all RME is equal to one. As previously mentioned, the government's incentives to act efficiently are the result of the relative importance of the different voting motives. In this context, indicators for accountability and capture are derived based on the estimated RME .

The government accountability (GA) index is defined as follows:

$$GA = \frac{RME^P + RME^R}{RME^P + RME^R + RME^{NP}} \quad (5.15)$$

When comparing policy vs. non-policy voting, RME of the policy and retrospective components can be added up as both directly depend on governmental policies and therefore can be considered counterparts of the non-policy component. Formally, the larger the value of the RME of the non-policy voting motive in relation to the RME of the policy and retrospective motives, i.e. the more voters base their electoral decision on non-policy factors, the less accountable is the government towards the voters.

In addition, when evaluating parties/candidates, the more a voter rely on policy oriented factors, the more important he is to the government and greater consideration is given to his preferred political position when developing and implementing policies. In this sense, the relative political weight of individual voters depends on the absolute marginal effect of the policy component (ME_{iG}^P). Here, it is important to note that in a democracy the weight of each vote is equal to $\frac{1}{n}$. Therefore, if individual voters have different ME_{iG}^P , they also have different individual relative political weights (g_i).

$$g_i = \frac{ME_{iG}^P}{\sum_{i=1}^n ME_{iG}^P} \quad (5.16)$$

Further, the relative political weights of social groups can also be derived. Then, based on these political weights, a government capture GC index is derived as the average weight of a member of a social group T_1 compare to the average political weight of a member of another social group T_2 .

$$GC = \frac{\frac{\sum_{i \in T_1} g_i}{n_{T_1}}}{\frac{\sum_{i \in T_2} g_i}{n_{T_2}}} \quad (5.17)$$

Finally, the relative political weight of social groups is what defines their political influence. Therefore, it can be assumed that, in a democracy, the relative political weight of abstainers also defines their level of importance in the policy making process.

5.4. Methodology

5.4.1. Probabilistic Voter Model and Nested Multinomial Logit Model

It is well known that not all voters decide to participate in electoral processes. Thus, to analyze such decision, the alternative Abstention must be included in the choice set. In this sense, voter behavior can be modeled based on the rational choice approach, where the voter's decision depends on the alternative differential $V_{iA} - V_{iB}$. Furthermore, to include all unknown factors involved in the decision process, a probabilistic voter model is estimated. This allows the inclusion of an individual-specific stochastic component (μ_{ik}) in the utility function (U_{ik}) comprising these unknown factors.

$$P_{iA}(A, B) = Prob(U_{iA} \geq U_{iB}) \text{ where } U_{ik} = V_{ik} + \mu_{ik}, k = A, B \quad (5.18)$$

Probabilistic voter models are estimated with Discrete Choice models, which are commonly used in political science research to analyze how voters decide between two or more alternatives in an election. More specifically, these models answer to the questions: Who?, what? and how?. Furthermore, the choice set fulfills three requirements: It must be *collectively exhaustive*, *mutually exclusive* and have a *finite number of alternatives*.

In order to derive the Discrete Choice model, a Random Utility Maximization (RUM) model is usually applied. Here, if the voter i acts rationally, he chooses the alternative k among K alternatives only if it provides him the highest utility U_{ik} . In other words, the greater the utility of an alternative, the more likely is that the voter will choose it.

The random unknown part μ_{ik} of the utility function U_{ik} is assumed to be independently, identically extreme value distributed (iid), and then a logit model was derived. Since Senegal and Honduras have multi-party systems and we also considered the alternative abstention, the model was extended to a multi-alternative estimation. The logit model was derived based on McFadden (1974, 1982) as:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (5.19)$$

We were looking to assess the importance of abstainers in presidential elections in Senegal and Honduras. Therefore, following the approach of Thurner and Eymann (2000) we proposed a model that simultaneously combines the choice among several parties and the alternative abstention. To this end, we combined the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on Croissant (2012) and Greene (2008):

$$P_{ik}(K) = P_{ik|m}P_m \quad (5.20)$$

with

$$P_{ik|m} = \frac{e^{V_{ik}}}{\sum_k e^{V_{ik}}} \text{ where } V_{ik} = \alpha_k + \beta x_{ik} + \delta_k r_i \quad (5.21)$$

and

$$P_m = \frac{\left(\sum_k e^{V_{ik}}\right)^{\lambda_m}}{\sum_m \left(\sum_j e^{V_{ij}}\right)^{\lambda_m}} \quad (5.22)$$

where α_k is an alternative specific constant, x_{ik} is an alternative specific variable with a generic coefficient β , and r_i is an individual specific variable with an alternative specific coefficient δ_k . The alternative specific coefficients are estimated with one of them set to zero and the remaining coefficients are interpreted with respect to the alternative whose coefficient was set to zero. On the contrary, generic coefficients are constant for all alternatives.

The conditional probability (equation 5.21) is the exponential expected utility of voter

i from alternative k divided by the sum of the exponential expected utilities of all the alternatives within a nest m . In other words, it is the probability that voter i chooses alternative k that belongs to a nest m . The marginal probability (equation 5.22) is the sum of the exponential expected utilities of all the alternatives within a nest to the power of λ_m (elasticity of nest m), divided by the sum of the exponential expected utilities for all nests. Finally, the probability that voter i chooses alternative k (equation 5.20) is calculated by multiplying the conditional probability of choosing alternative k if the nest m is chosen times the marginal probability of choosing the nest m . For this model to be compatible with the RUM, all the nest elasticities have to be in the interval from 0 to 1.

The nested multinomial logit model estimated in this paper includes three components or voting motives: non-policy oriented (V_{ik}^{NP}), policy oriented (V_{ik}^P) and retrospective oriented (V_{ik}^R). The voter's utility function is now as follows:

$$V_{ik} = V_{ik}^{NP} + V_{ik}^P + V_{ik}^R \quad (5.23)$$

Not all voters are well informed and aware of policies, especially in developing countries. Therefore, voters might apply non-policy indicators to estimate their expected utility, such as their socio-demographic characteristics x_{ij} , as well as, their level of trust on the incumbent y_{ig} . Another variable included in the utility function is party identification PI_{ik} that works as an intensifier in the preferences of voters towards a candidate.

$$V_{ik}^{NP} = \sum_j^J \alpha_{kj} x_{ij} + \alpha_k y_{ig} + \alpha PI_{ik} \quad (5.24)$$

On the other hand, if voters are well informed and interested in politics, they might decide based on the policy platforms proposed by the candidates. In this sense, the policy oriented voter's utility function is calculated based on the spatial voting model (Davis et al., 1970; Enelow and Hinich, 1984), as the squared distance between a voter's position x_{id} on a specific issue d and the perceived position taken by the party or candidate y_{ikd} on the same issue:

$$V_{ik}^P = - \sum_d^D \beta_d (y_{ikd} - x_{id})^2 \text{ where } (y_{ikd} - x_{id}) = D_{ikd} \quad (5.25)$$

The coefficient β is always negative, because the greater the distance between the voter's position and the party/candidate's position, the less is the utility. We considered the

minimal negative distance for the alternative abstention. Then, the greater the distance to the closest party/candidate, the greater is the benefit from abstaining, which agrees with the voting paradox.

As regards the retrospective voting motive (Fiorina, 1981), voters can express a general assessment of the past performance of a party/candidate or the government. They use observable welfare indicators Z_{ir} determined by governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir}(\gamma_G) \quad (5.26)$$

Note that in the estimation of our model, we assumed that the assessment of the economic performance of the government also has an impact on the voters' evaluation of the opposition parties, as well as on the decision of refraining from voting.

5.4.2. Government Performance

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for accountability and capture. In this sense, we estimated marginal effects (ME) for the three voting components because they show how sensitive are the voters to changes in policy, non-policy and retrospective voting motives.

- For the variables with generic coefficients ME were estimated as follows:

$$\frac{\partial P_{ig}}{\partial D_{igd}} = \left| P_{ig} (1 - P_{ig}) \beta_d \left[\frac{(1 - P_{ig|m})}{(1 - P_{ig})} + \lambda_m \frac{(P_{ig|m} - P_{ig})}{(1 - P_{ig})} \right] \right| \quad (5.27)$$

- For the variables with alternative specific coefficients ME were estimated as follows::

$$\frac{\partial P_{ig}}{\partial Z_{ir}} = \left| P_{ig} \left(\delta_g - \sum_k^K \delta_k P_{ik} \right) \left[\frac{(P_m \delta_g - \sum_k^K \delta_k P_{ik})}{P_m (\delta_g - \sum_k^K \delta_k P_{ik})} + \lambda_m \frac{[1 - P_m] \sum_k^K (\delta_k P_{ik})}{P_m (\delta_g - \sum_k^K \delta_k P_{ik})} \right] \right| \quad (5.28)$$

where g refers to the government party.

These marginal effects point out the extent to which the probability P_{ig} changes when there is a one-unit change in the independent variables.

To evaluate the relative importance of the different motives, the relative marginal effects (RI) are calculated for each voter:

$$RI_i^{NP} = \frac{ME_i^{NP}}{ME_i^{NP} + ME_i^P + ME_i^R} \quad (5.29)$$

$$RI_i^P = \frac{ME_i^P}{ME_i^{NP} + ME_i^P + ME_i^R} \quad (5.30)$$

$$RI_i^R = \frac{ME_i^R}{ME_i^{NP} + ME_i^P + ME_i^R} \quad (5.31)$$

Government Accountability

Based on the RI , a government accountability index (GA) was estimated to verify whether electoral competition encourages governments to develop and implement efficient policies that would increase the welfare of the society. Responsible actions by the government can only take place if people choose more policy and retrospectively oriented. Therefore, the assumption is that, when voters choose more non-policy oriented, the government has a lack of incentives, which in turn results in low accountability.

$$RI^{NP} = \sum_{i=1}^n RI_i^{NP} \quad (5.32)$$

$$RI^P = \sum_{i=1}^n RI_i^P \quad (5.33)$$

$$RI^R = \sum_{i=1}^n RI_i^R \quad (5.34)$$

$$GA = \frac{RI^P + RI^R}{RI^{NP} + RI^P + RI^R} \quad (5.35)$$

where policy and retrospective *RI* can be added up in order to compare policy vs. non-policy motives.

Government Capture

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority. This implies that a small group of people has comparatively greater insights on political events. In this sense, we assume that the more policy oriented a voter chooses, the more importance he has for political parties. Therefore, to look at the extent to which a group is more important to the governmental party than the other, we first calculate the individual relative political weights:

$$g_i = \frac{ME_{ig}^P}{\sum_{i=1}^n ME_{ig}^P} \quad (5.36)$$

Then, to identify which group from the electorate has a greater weight in the political process, we developed the following government capture index (*GC*):

$$GC_{1vs2} = \frac{\frac{\sum_{i \in 1} g_i}{a_1}}{\frac{\sum_{i \in 2} g_i}{a_2}} \quad (5.37)$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

5.5. Data

In the case of Senegal, we designed a voter survey including questions on socio-economic characteristics, voting behavior, policy positions and network characteristics. It was carried out on January 2019 by the Senegalese Agricultural Research Institute. The interviews were conducted face-to-face in the respective dialect or language of the interviewees. The sample contains 1000 individuals from five different regions across the country. After data cleaning, 844 complete observations remained for the analysis of voters' behavior.

For Honduras, two sources of data were collected:

- Baseline household survey: as part of a food security project developed by the Government of Honduras and IFPRI (International Food Policy Research Institute),

detailed data regarding the socio-economic and demographic characteristics of the households was collected in seven departments of Honduras.

- Voter survey: we designed a questionnaire to look at beliefs and political preferences of households. The data was collected through face-to-face interviews conducted in Spanish by O&M Estudios y Proyectos. The survey was carried out just before the general elections on November 2017 in four different departments.

The total sample size of the surveys is 1021 voters. However, after data cleaning, 811 complete observations were available to analyze voting behavior.

5.5.1. Dependent Variable

In a probabilistic voter model the dependent variable is usually the actual or intended vote choice. Nevertheless, given the approach of the nested multinomial logit model for this paper, the alternative Abstention was added. In the questionnaire, respondents were asked:

If a presidential election were held tomorrow, which party's candidate would you vote for?

The respondents showing an intended vote choice for the ruling party were considered to be part of the “Government” nest. On the other hand, the interviewees who did not show support for the incumbent party were considered members of the “Non-Government” nest. More specifically, within the latter are the voters who chose one of the opposition parties, as well as, those who decided not to participate in the electoral process. As pointed by Thurner and Eymann (2000), the number of people who revealed their intention of abstaining in an election is usually underestimated in surveys due to effects of social (un)desirability. Therefore, following the aforementioned approach, we have considered the interviewees who answered “Don’t know” and “Wil not vote” as part of the Abstention alternative.

Table 5.1 shows the results of the survey carried out in Senegal, as well as the official presidential election outcome. Even though the survey results are not very close to the actual election outcome, the party in power BBY (Benno Bokk Yaakaar) is a clear winner in both scenarios. For the analysis in the empirical section we consider all parties and

Abstention. Then, the whole set of alternatives is: $K = \{\text{BBY, Rewmi, Pastef, PUR, Niang and Abstention}\}$.

Table 5.1.: Senegalese presidential elections results

	BBY	Rewmi	Pastef	PUR	Niang	Abstention
<i>Presidential elections 2019</i>	38.48%	13.55%	10.35%	2.69%	0.98%	33.95%
<i>Own survey 2019</i>	70.46%	3.72%	5.30%	1.13%	0.34%	19.05%

Source: Constitutional Council of Senegal (2019), own survey

As for Honduras, the results are displayed in table 5.2. Once again, the data provided by the Honduran survey does not resemble the election outcome. However, it confirms that the incumbent party PNH (Partido Nacional de Honduras) was the winner. For the empirical analysis, we took into account the two main parties PNH and PLH, the coalition party Libre + PINU-SD, as well as the alternative Abstention. Then, the whole set of alternatives is: $K = \{\text{PNH, PLH, Libre + PINU-SD and Abstention}\}$.

Table 5.2.: Honduran presidential elections results

	PNH	PLH	Libre + PINU-SD	Others	Abstention
<i>Presidential elections 2017</i>	24.10%	8.27%	23.23%	0.50%	43.90%
<i>Own survey 2017</i>	59.10%	19.90%	7.20%	0.00%	13.80%

Source: Tribunal Supremo Electoral Honduras (2017), own survey

It is worth noting that in general, people tend to lie when they are asked about their intended vote choice. According to Bannon (2003), only a small percentage of the electorate identify themselves as “non-voters”. Furthermore, he argues that even if all identified as “don’t knows’” do not vote, this still does not represent the actual percentage of the electorate who actually abstains.

5.5.2. Independent Variables

The independent variables were divided into policy, retrospective and non-policy variables.

Policy Variables: Seven different policy issues were considered. The policy positions on these issues were asked based on a five-point scale. The interviewees had to indicate their own policy position, as well as their perceived positions of the parties on the following

issues:

1. 1-Agree with liberal policies, 5-Disagree with liberal policies (Social)
2. 1-Left (socialism), 5-Right (capitalism) (Ideology)
3. 1-Tax revenues should be used to provide public services, 5-Tax revenues should be used to further improve economic growth (PSvsEG)
4. 1-Public services expenditures should be mainly invested in improving education and health services, 5-Public services expenditures should be rather used to reduce insecurity and violence (EHvsIV)
5. 1-Economic growth shall be achieved through the development of the agricultural sector, 5-Economic growth shall be achieved through the development of the industrial sector (AGRvsIND)
6. 1-Increase productivity of food crops to guarantee food security, 5-Increase productivity of cash crops to guarantee greater farm income (FoodvsCash)
7. 1-Benefit the agricultural sector through technological progress, 5-Benefit the agricultural sector through better access to markets (TPvsAM)

These were used to calculate distances for parties as the difference between the voters' own policy position and the perceived policy position of the parties. For the alternative Abstention, the minimal negative distance was considered. Therefore, the utility of non-voting is greater than the utility of voting and hence the voting paradox is fulfilled.

Retrospective Variables: In the survey, questions of satisfaction with government performance were asked. More specifically, there were questions addressing the level of satisfaction of the interviewees with the performance of the current president, as well as the implementation of agricultural policies by the government.

Non-policy Variables: A whole set of sociodemographic variables such as gender, age, marital status and education was included. Furthermore, to measure party loyalty, the variable Party ID was used. In particular, alternative specific dummies were created, where "1" indicates party affiliation for that specific party and "0" otherwise. In the case

of the alternative Abstention, the variable was set to “0” since there is no such thing as party identification for Abstention. In addition, a set of questions was incorporated asking about the importance of the characteristics of the candidate, as well as the trust in state institutions and media.

To estimate the nested multinomial logit model, where we combined the party/candidate choice with the abstention/participation choice, we created the dummy Abstention, which is equal to “1” if the person decided not to vote and “0” otherwise.

5.6. Empirical Application and Results

5.6.1. Nested Multinomial Logit Model

Using the same variables, we estimated nested multinomial logit models (NML) to observe the factors that influence voting behavior, as well as those that drive people’s decision of abstaining in both countries, Senegal and Honduras. With the data previously described and to demonstrate robust statistics, we performed different model specifications including only the independent variables that, according to the p-value test, were significant. The goodness of fit was defined by means of the Log-likelihood function and, in this paper, only the best models are presented. Additionally, for each country, the corresponding ruling parties were taken as the reference alternative, meaning that the alternative specific coefficients are interpreted in comparison to them. Finally, to confirm that the independent variables were not highly correlated with one or more of the other independent variables, a test for multicollinearity was performed. This consisted in calculating the condition indexes and variance decomposition proportions to check the intercorrelation among the independent variables. In our optimal models, we found no presence of multicollinearity.

5. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America

Table 5.3.: Nested Multinomial Logit Model Senegal

Variables	Coefficients	Standard Error	z-value	Pr(> z)	
Abstention:(intercept)	1.9671	0.9328	2.11	0.0350	*
Niang:(intercept)	-2.5489	20.6903	-0.12	0.9020	
Pastef:(intercept)	0.0804	1.1284	0.07	0.9432	
PUR:(intercept)	-0.3482	1.9651	-0.18	0.8594	
Rewmi:(intercept)	-0.2172	1.2012	-0.18	0.8565	
PSvsEG	-0.1374	0.0490	-2.80	0.0051	**
FoodvsCash	-0.0924	0.0526	-1.76	0.0789	.
Party_id	5.7989	0.6713	8.64	0.0000	***
Abstention:Satisfaction_president	-0.5719	0.2571	-2.22	0.0261	*
Niang:Satisfaction_president	-0.6346	6.8514	-0.09	0.9262	
Pastef:Satisfaction_president	-1.0428	0.4728	-2.21	0.0274	*
PUR:Satisfaction_president	-0.6536	1.3598	-0.48	0.6308	
Rewmi:Satisfaction_president	-0.8308	0.3125	-2.66	0.0078	**
Abstention:Trust_president	-0.4775	0.2437	-1.96	0.0501	.
Niang:Trust_president	-0.4377	7.1427	-0.06	0.9511	
Pastef:Trust_president	-0.7249	0.4278	-1.69	0.0902	.
PUR:Trust_president	-0.4615	1.0950	-0.42	0.6734	
Rewmi:Trust_president	-0.8861	0.3701	-2.39	0.0167	*
Abstention:Possibility_winning_elections	-0.0319	0.1032	-0.31	0.7573	
Niang:Possibility_winning_elections	0.2757	6.6716	0.04	0.9670	
Pastef:Possibility_winning_elections	0.7503	0.2639	2.84	0.0045	**
PUR:Possibility_winning_elections	-0.0962	0.4097	-0.23	0.8143	
Rewmi:Possibility_winning_elections	0.6648	0.2520	2.64	0.0083	**
iv:government	0.3086	0.0589	5.24	0.0000	***
iv:non_government	0.9253	0.3345	2.77	0.0057	**

Significant coefficients: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$

Log-Likelihood: -461

McFadden R^2 : 0.383

Likelihood ratio test : $\chi^2 = 574$ ($p.value \leq 2e-16$)

Source: Own estimation

5. How Important are Abstainers in Presidential Elections?: A Comparative Analysis
between Africa and Latin America

Table 5.4.: Nested Multinomial Logit Model Honduras

Variables	Coefficients	Standard Error	z-value	Pr(> z)	
Abstention:(intercept)	9.2130	2.6446	3.48	0.0005	***
Libre_PINU_SD:(intercept)	7.9609	2.7136	2.93	0.0034	**
PLH:(intercept)	5.2531	2.5916	2.03	0.0427	*
PSvsEG	-0.1171	0.0296	-3.96	0.0001	***
FoodvsCash	-0.0519	0.0282	-1.84	0.0653	.
Party_id	3.8115	0.3220	11.84	0.0000	***
Abstention:Satisfaction_president	-0.8393	0.3480	-2.41	0.0159	*
Libre_PINU_SD:Satisfaction_president	-1.0468	0.3746	-2.79	0.0052	**
PLH:Satisfaction_president	-0.6207	0.3729	-1.66	0.0960	.
Abstention:Trust_president	-0.8395	0.3419	-2.46	0.0141	*
Libre_PINU_SD:Trust_president	-0.9427	0.3737	-2.52	0.0117	*
PLH:Trust_president	-1.0896	0.3557	-3.06	0.0022	**
Abstention:Possibility_winning_elections	-1.3798	0.4435	-3.11	0.0019	**
Libre_PINU_SD:Possibility_winning_elections	-1.0589	0.5079	-2.08	0.0371	*
PLH:Possibility_winning_elections	-0.3204	0.4768	-0.67	0.5017	.
iv:government	0.9345	0.1088	8.59	0.0000	***
iv:non_government	0.9588	0.2317	4.14	0.0000	***

Significant coefficients: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$

Log-Likelihood: -354

McFadden R^2 : 0.598

Likelihood ratio test : $\chi^2 = 1050$ ($p.value \leq 2e-16$)

Source: Own estimation

Tables 5.3 and 5.4 show the optimal nested multinomial logit model estimations for Senegal and Honduras. In both models the significant alternative specific constants or intercepts, that absorb all information not explicitly included in the models, are positive. Further, two political issues (Public Services vs. Economic Growth and Food Crops vs. Cash Crops) resulted significant when voters make their decision. In both cases, the distances show the theoretically expected negative sign indicating, in the case of the political parties, that the greater the distance between a voter's position and the perceived position of a party, the less is the utility and thus the less is the probability to vote for that party's candidate. On the other hand, for the alternative Abstention, as the variable has also a negative sign, the greater the distance between a voter's position and the perceived position of the nearest party, the higher is the utility and thus the higher is the probability to abstain. Furthermore, the last significant attribute in our models was Party Identification (PI) with positive coefficients. This implies that, when a voter has party affiliation for a

specific party, he will clearly be very likely to support such party.

It is also interesting to note that the variables Satisfaction with President and Trust President resulted significant for both countries. The negative sign of the coefficients imply that the higher the level of satisfaction/trust from voters, the lower is the probability to either abstain or vote for an opposition party, compared to the ruling parties. Concerning the perception of voters about the winning possibilities of a party/candidate, the more important this characteristic is for voters in Senegal, the higher is the probability of voting for the opposition parties Pastef and Rewmi with respect to BBY. On the contrary, for voters in Honduras, the more important these characteristics of the parties/candidates are, the lower is the probability that they will abstain or choose the opposition coalition in comparison with PNH.

The nests in the models were: Government, if the voter supported the incumbent party and Non-Government, if the voter decided to either abstain or choose an opposition party. Furthermore, the significant lambda values (λ) are the nest elasticities (iv:government and iv:non_government). The correlation values ($1 - \lambda$) within the Government nest were 0.6914 and 0.0655 for Senegal and Honduras respectively, and within the Non_Government nest were 0.0747 and 0.0412.

Finally, with the optimal models we estimated the utilities and probabilities. Tables 5.5 and 5.6 show the mean probabilities for each alternative and country. For both models the government party is the one with the highest probability of winning the elections.

Table 5.5.: Mean probabilities Senegal

Alternatives	Mean Probabilities
<i>Abstention</i>	18.14%
<i>BBY</i>	71.80%
<i>Niang</i>	0.35%
<i>Pastef</i>	4.97%
<i>PUR</i>	1.06%
<i>Rewmi</i>	3.67%

Source: Own estimation

Table 5.6.: Mean probabilities Honduras

Alternatives	Mean Probabilities
<i>Abstention</i>	13.57%
<i>PNH</i>	59.56%
<i>PLH</i>	19.97%
<i>Libre + PINU-SD</i>	6.91%

Source: Own estimation

In table 5.7 we can see the groups of voters with higher tendency to abstain. More precisely, young, as well as employed people have a greater probability of abstaining in both countries. Also, in Senegal, women, non-married, non-farmers and educated voters, have lower incentives to cast a vote. Similarly, in most cases, people who less often obtain relevant political and economic information tend to abstain more. Here we could think that less informed voters are less motivated to participate in electoral processes. This, in turn, supports the findings of Feddersen and Pesendorfer (1999), who mentioned that the level of information of the electorate is also determinant regarding the level of participation. In their research, they showed that more informed voters are more likely to vote than their less informed counterparts.

Table 5.7.: Probability to abstain

	Senegal			Honduras		
	mean	mean	p-value	mean	mean	p-value
<i>Men vs Women</i>	16.46%	19.75%	0.0030	13.47%	13.89%	0.8100
<i>Young vs Old</i>	19.09%	16.73%	0.0330	16.03%	12.48%	0.0350
<i>Married vs Other</i>	17.22%	21.67%	0.0029	14.42%	12.97%	0.3300
<i>Employed vs Unemployed</i>	18.25%	14.14%	0.0920	13.86%	7.83%	0.0038
<i>Farmer vs NonFarmer</i>	17.43%	19.59%	0.0700	13.43%	13.70%	0.8500
<i>Educated vs Uneducated</i>	24.00%	17.75%	0.0310	13.81%	13.55%	0.9300
<i>Media (More_Inf vs Less_Inf)</i>	17.08%	20.86%	0.0024	12.57%	19.58%	0.0060
<i>Social Media (More_Inf vs Less_Inf)</i>	22.02%	17.75%	0.0620	12.16%	13.64%	0.6200
<i>Cellphone (More_Inf vs Less_Inf)</i>	16.19%	18.75%	0.0640	10.96%	13.82%	0.1600
<i>Friends and Family (More_Inf vs Less_Inf)</i>	17.31%	22.06%	0.0011	12.58%	16.12%	0.0460
<i>Word of Mouth (More_Inf vs Less_Inf)</i>	17.48%	20.43%	0.0250	13.36%	13.89%	0.7300
<i>Meetings (More_Inf vs Less_Inf)</i>	17.12%	20.10%	0.0082	12.14%	15.28%	0.0340

Source: Own estimation

5.6.2. Government Performance Indicators

The coefficients estimated with the nested multinomial logit model allowed us to measure the direction of the impact. However, to evaluate the magnitude of such impact, marginal effects had to be calculated. Furthermore, in order to assess the importance of each voting component, the next step was to obtain the relative marginal effects (RI). The estimation of the RI, allows to see how sensitive voters are to changes in each voting motive. Unsurprisingly, as displayed in tables 5.8 and 5.9 all voters choose, in general, more non-policy oriented. However, it is worth noting that, in both countries, non-voters tend to choose more policy and non-policy oriented than those who voted for BBY and PNH respectively. Additionally, those who decided not to support the government parties choose more retrospectively oriented.

Table 5.8.: Relative Marginal Effects Senegal

	Government			Government	Non-Government	p-value
	Party	Abstention	p-value	Party	Party	
<i>Policy</i>	2.20%	3.30%	0.0000	2.20%	1.45%	0.0000
<i>Retrospective</i>	22.22%	6.26%	0.0000	22.22%	29.16%	0.0000
<i>Non-Policy</i>	75.58%	90.44%	0.0000	75.58%	69.39%	0.0000

Source: Own estimation

Table 5.9.: Relative Marginal Effects Honduras

	Government			Government	Non-Government	p-value
	Party	Abstention	p-value	Party	Party	
<i>Policy</i>	2.39%	3.03%	0.0000	2.39%	1.49%	0.0000
<i>Retrospective</i>	12.66%	6.36%	0.0000	12.66%	19.61%	0.0000
<i>Non-Policy</i>	84.94%	90.61%	0.0000	84.94%	78.89%	0.0000

Source: Own estimation

Governments act accountable when they implement policies serving the needs and desires of voters rather than favoring special interests of lobbying groups or intrinsic policy preferences of politicians. This is achieved when voters make their decision more policy and retrospectively oriented. Accordingly, we estimated accountability indexes for both countries and the results in table 5.10 indicate that, although in general, the electorate does not hold the governments accountable, non-government supporters have a higher ac-

countability index. Therefore, this group of people hold the government more accountable, meaning that, if the governments fail to achieve the goals that they committed to, these voters are more likely to abstain or choose an opposition party in order to punish the bad performance.

Table 5.10.: Accountability Indexes

	Government Party	Abstention	Non-Government Party
<i>Senegal</i>	24.42%	9.56%	30.61%
<i>Honduras</i>	15.06%	9.39%	21.11%

Source: Own estimation

Nevertheless, the government in its quest to be reelected might still have incentives to please the interests of special groups at the expense of the majority of voters. This problem of underrepresentation known as capture is common in electoral processes. To measure the political weight of certain groups of voters, different government capture indexes were calculated. In table 5.11 it is evident that, in most cases, the groups of voters with a higher probability to abstain (see table 5.7) capture their counterparts. In addition, it is important to highlight that both, in Senegal and in Honduras, abstainers and non-government voters capture those who decided to support the incumbent parties. This implies, that they have a higher political weight and therefore, could put pressure on the governments to choose and implement better policies if they decided to vote for the latter. In other words, abstainers can definitely develop the power to generate a higher government performance as they are clearly responsive to policies. On the other side, BBY and PNH would prefer that these groups do not participate in the electoral process due to their high political weights.

Table 5.11.: Capture Indexes

	Senegal	Honduras
<i>Men vs Women</i>	0.8666	1.0494
<i>Young vs Old</i>	1.0584	1.2421
<i>Married vs Other</i>	0.8935	0.9526
<i>Employed vs Unemployed</i>	1.0711	1.0797
<i>Farmer vs NonFarmer</i>	0.9194	1.0132
<i>Educated vs Uneducated</i>	1.0675	0.9881
<i>Media (More_Inf vs Less_Inf)</i>	0.8389	0.9584
<i>Social Media (More_Inf vs Less_Inf)</i>	1.0619	0.8362
<i>Cellphone (More_Inf vs Less_Inf)</i>	0.8032	0.9708
<i>Friends and Family (More_Inf vs Less_Inf)</i>	0.7926	1.0508
<i>Word of Mouth (More_Inf vs Less_Inf)</i>	0.8441	1.1296
<i>Meetings (More_Inf vs Less_Inf)</i>	0.7930	1.0343
<i>Government Party vs Abstention</i>	0.6480	0.4976
<i>Government Party vs Non-Government Party</i>	0.7514	0.7334

Source: Own estimation

The analysis of the policy component is very important in our research study. Nevertheless, our results have already demonstrated that voters in Senegal and Honduras, choose more non-policy oriented. In this sense, the most relevant non-policy variable in our models was Party Identification. People who abstain usually do not have any party affiliation. On the contrary, people who take part in the electoral process and have PI mostly choose the party towards they have PI. In the case of Senegal, more than 50% of the people who said that would vote, do not have PI. Also, voters tend to lie about their intended vote choice. Therefore, based on the results of our survey compared to the official election outcome (see table 5.1), we might presume that most people without party affiliation did not choose BBY, but instead they decided to abstain or vote for an opposition party. On the other hand, in the case of Honduras, approximately 80% of the voters have party affiliation. However, the actual election results show that more than 40% of the people did not cast a vote (see table 5.2). This supports the findings of Bannon (2003) who stated that having a political preference does not necessarily indicate someone's vote choice, because even voters with a political preference might refrain from voting.

5.7. Summary and Conclusion

In order to compare the importance of abstention in presidential elections between Africa and Latin America, data from Senegal and Honduras was analyzed. In both countries, the majority of the population is engaged in agricultural activities. Also, they face problems of corruption and high levels of poverty. Both are presidential republics and have relatively stable democracies with multi-party systems. However, they have experienced a decline in the voter turnout over the past elections, which means that the party systems are somehow failing to engage voters in recent years.

In this study we evaluate the factors that influence voting behavior in Senegal and Honduras, as well as those factors that influence people's decision of abstaining. More specifically, we assess the importance of non-voters in the policy making processes of these countries, to determine if they could motivate the governments to implement efficient policies. For this purpose we estimated nested multinomial logit models including the alternative Abstention in the choice set.

Our results suggest that for both countries, policy issues, party identification, a variable related to the level of trust that voters have on the incumbent, their level of satisfaction with the performance of the president, as well as their perception about the winning possibilities of a candidate/party, are important when making an electoral decision. The estimations point at the ruling party of each country as the winner. We also found that, overall, voters with higher tendency to abstain are mostly young and employed people. Similarly, less informed voters are less motivated to participate in electoral processes. Additionally, in Senegal, women, non-married, non-farmers and educated voters, have lower incentives to cast a vote.

Regarding the non-policy component, the most relevant variable in our models was Party Identification. People who abstain usually do not have any party affiliation. In the case of Senegal, more than 50% of the people who said that would vote, do not have PI. Therefore, since voters tend to lie about their intended vote choice, we might presume that most people without party affiliation did not choose BBY, but instead they decided to abstain or vote for an opposition party. On the other hand, in the case of Honduras, approximately 80% of the voters have party affiliation. However, the actual election results show that more than 40% of the people did not cast a vote. This suggests that even voters with a political preference might refrain from voting.

The evidence also shows that most people have a tendency to make their decision more non-policy oriented. However, it is worth noting that non-voters tend to choose more policy and non-policy oriented than those who voted for BBY and PNH respectively. In addition, those who decided not to support the government parties choose more retrospectively oriented than their counterparts. Further, despite the fact that the accountability indexes are quite low in both cases, those who do not support the incumbent hold the government more accountable. Therefore, if governments fail to achieve the goals that they committed to, these voters are more likely to abstain or choose an opposition party to punish the bad performance.

Moreover, abstainers and non-government voters capture those who decided to support the incumbent parties. This implies, that they have a higher political weight and therefore, could put pressure on the governments to choose and implement better policies if they decided to vote for the latter. In other words, abstainers can definitely develop the power to generate a higher government performance as they are clearly responsive to policies. On the other side, BBY and PNH would prefer that these groups do not participate in the electoral process due to their high political weights.

In conclusion, we can no longer affirm that people decide to abstain just because the act of voting is inconvenient and time-consuming, or that they decide to cast a vote because it is merely a civic duty. In these two developing countries, there are other factors that voters take into account when they decide to either vote or abstain, like their level of satisfaction with the performance of the president. Moreover, we found that less informed voters seem to be less motivated to cast a vote. In addition, the incumbent is held more accountable when all non-government supporters are considered. This means that they are important for the political process and, therefore should be taken into account. Furthermore, since in both countries, the incumbents' voters are being captured by all other groups within the electorate, we could conclude that abstainers, as well as those who have chosen an opposition party/candidate can motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. In other words, contrary to the many theoretical works that have been published in political science explaining the lack of importance of abstainers, our results demonstrate that they can actually develop power to incentive a higher performance of the government. We could also say that, voters in Senegal and Honduras behave similarly and seem to punish the bad performance of the

government, not only by voting for an opposition party, but also by abstaining. In this sense, from now on, not only the relative importance of the policy vs. non-policy voting motives should be considered when studying the impact of voter behavior on government performance, but also abstention should be contemplated as a new incentive for high government performance.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uninformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stabilitiy in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nylund, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinaty Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.serve.cl/>, December 2017. URL <https://historico.serve.cl/serve/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters’ perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

6. Chapter

The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

Christian Henning and Andrea Lendewig

Paper prepared to be submitted at the "Comparative Political Studies" journal

Abstract

Democracy gives people the right to choose and control their government. In addition, access to education and information are important to achieve a fair society as highly educated and well informed voters choose more policy oriented, which in turn results in better government performance. The aim was to analyse the influence that education and information have on voting behavior and its impact on government performance. To this end, we estimated probabilistic voter models using AmericasBarometer data from Honduras, Chile and the USA. We found that, better educated and well-informed people, as well as those who decide to participate in elections choose more policy oriented and have a higher political weight than their counterparts. Nonetheless, retrospective voting can come from the educated, informed and voters, as well as from the uneducated, uninformed and abstainers.

6.1. Introduction and Literature Review

Democracy is a political system that gives people the right to choose and control their government leaders. It attributes power to the people, that is, through their participation in electoral processes, voters confer legitimacy on their political leaders. In other words, democracy is a form of government where power is exercised by the people, through legitimate mechanisms of participation in political decision-making. Although it is not perfect, it is often considered the best political system, since it is a just and convenient form of government allowing the population to live in harmony. In this regard, voting, although not the only element defining democracy, is a necessary condition for a political system to be democratic. Furthermore, voting should guarantee the will of the majority of the population instead that of individual interests.

However, not all the people who have the legal right to cast a vote at an election decide to participate. According to Solijonov (2016), even though the voter population has been growing globally and the number of countries that hold elections have increased, the global average voter turnout has decreased significantly over the past decades. The reasons for electoral abstentionism are very diverse. There are a series of sociodemographic factors (such as the level of education and income), psychological factors (like the indifference and lack of interest in political matters) and political factors (such as the lack of trust in political parties or in the electoral system) that could explain this phenomenon. Degan and

Merlo (2011) found that older and more educated people are on average more likely to have a higher sense of civic duty than the younger and less educated individuals. Moreover, Feddersen and Pesendorfer (1999) analyzed voters with asymmetric information and showed that more informed citizens are more likely to vote than their less informed counterparts. Furthermore, Plane and Gershtenson (2004) included in their analysis some individual sociodemographic characteristics, as well as social-psychological traits and found that, as expected, higher levels of political interest have positive effects on the likelihood of voting.

Many consider that electoral abstention diminishes the strength of a country's democracy and undermines the legitimacy of elected leaders. Lijphart (1997) argues that low voter turnout is a serious democratic problem because it causes inequality as politicians give more importance to the interests of the voters. Also, many democratic theorists like Barber (2004) and Pateman (1970) explain that participation is essential for democracy and others suggest that high levels of abstention undermine the legitimacy of democracy (Cavanagh (1981) and Salisbury (1975)). On the other hand, a high number of abstentionists does not necessarily imply any danger to democracy. Examples of countries that have a high level of abstention and are no less democratic are Canada, Ireland and Switzerland. In fact, in their last electoral processes, all of them had abstention levels over 30% (Elections Canada (2019), Houses of the Oireachtas (2020)), and in the case of Switzerland, it was over 50% (Federal Statistical Office (2019)). However, according to The Economist Intelligence Unit (2021), they are all considered "Full democracies" since they have a Democracy index score higher than 8.01.

On the other hand, access to education and information are also important to achieve a fair society. More specifically, literature on voter behavior often suggests that well educated and well informed voters tend to choose more policy oriented, which in turn should result in a better performance of the government. In this sense, Hochschild (2010) argues that a good democracy requires informed and well educated voters. Moreover, Carmines and Stimson (1980) explain that issue voters are better educated, better informed and more active in politics than non-issue voters. Further, Schachter (1995) suggests that proper education of the citizens and information exchange are required to reach an efficient and responsive government. According to Grossman and Helpman (1996), voters base their electoral decision on policy oriented, as well as non-policy oriented factors, given their level of information on politics. In consequence, the higher the importance of the non-policy component, the lower is the incentive of a government seeking for reelection to

implement policies that benefit its electorate. In addition, Bardhan and Mookherjee (2000) distinguish between informed and uninformed voters. They explain that the former are politically aware and choose based on the utility they expect to obtain, whereas the latter are influenced by political campaign. Therefore, the existence of uninformed voters causes policy biases, i.e. Government Capture. More recently, Pande (2011) explained that limited information is an explanation for low-quality politicians in low-income democracies. Therefore, information about the political process and politician performance improves electoral accountability. Also, Gavazza et al. (2018) found that information plays an important role in electoral participation, government policies and government size.

In political theory, electoral competition is understood as a fundamental democratic mechanism that should serve to control the government. In this regard, responsible actions by the government can only take place if voters decide politically and retrospectively oriented. When voters choose retrospectively oriented, they base their decision on the observed governmental performance, i.e. they decide according to their well-being, as well as their satisfaction with the economic situation of the country and their own economic situation. Akarca and Tansel (2007) suggest that the Turkish electorate considers the economic performance of the incumbent party and, if it is poor, it benefits the opposition. Lewis-Beck and Nadeau (2000) and Fraile and Lewis-Beck (2013) examined economic voting in Europe and found that economic issues play a significant role in the vote choice. Also, Shabad and Slomczynski (2011) argue that voters take into account the economic and political performance when deciding whether to reward or punish the incumbent. Additionally, Enkelmann (2013) analyzed German voters and showed that they take into account the national and personal economic situation when evaluating the government. The results of the study of Soederlund (2008) suggest that voters often value the overall competence of politicians and parties when they make their electoral decision.

Some researchers argue that information is important in retrospective voting in democracies. Duch (2001) proposes that economic voting is higher, when the levels of information on the government increase. Stiers (2019) studied the role of political information in retrospective voting and found that, in high-clarity contexts, there is a larger difference between voters with different levels of political information. Other authors, on the other hand, explain that performance voting also happens among less informed individuals. For example, Fortunato and Stevenson (2013) argue that political sophistication is unnecessary as their results suggest that unsophisticated voters, who nonetheless know who is in the cabinet,

actually cast economic votes at high rates. Furthermore, Collier et al. (1987) suggest that, in fact, “retrospective voting reduces information costs”.

Economic voting has been studied in the context of developed, as well as developing countries. First, Fiorina (1978) conclude that in the American national elections citizens vote for or against the incumbent president’s party based on their personal economic condition. Then, Happy (1989) studied the retrospective economic voting in Canada and showed that income stability and income growth have an impact on incumbency voting. Later, Johnston and Pattie (2001) analyzed retrospective voting in Great Britain and found that negative evaluations of the government policy decreases the probability of an elector voting for the incumbent party. Furthermore, Lewis-Beck (1986) studied survey data from Britain, France, Germany and Italy and concluded that economic voting is clear and consistent. Moreover, he demonstrates that economic conditions are a relatively important vote determinant in these countries. Regarding the developing countries, Oganesyanyan (2014) shows that voters in these countries do take the economy into account when making their electoral decision. However, they simultaneously assume both, retrospective sociotropic and prospective sociotropic characteristics. Singer and Carlin (2013) analyzed 18 Latin American countries and found that, in general, voters consider more the national economy than the personal finances except in the least developed countries. Fraile and Lewis-Beck (2013) also found that, in Latin America, voters reward or punish the economic performance of governments. More specifically, the sociotropic retrospective economic effects on the incumbent vote are highly significant.

Regarding the importance of abstainers from a political science point of view, it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored. In this sense, Quaille Hill and Leighley (1992) and Leighley and Nagler (1992) provided evidence that electoral participation is important in the formulation of social welfare policies. Also, Uhlaner (1989) argued that groups of voters, who share political interests, motivate candidates to shift their position in the policy space towards the preferred position of the members of this group. Moreover, the theory of rational voting (Downs, 1957) assumes that political parties choose the policy position that maximizes their expected vote share. Additionally, Burnham and A James (1987) concluded that “if you don’t vote, you don’t count” and, according to Wattenberg (2002), “politicians are not fools; they know who their customers are”, therefore they should not worry about non-voters.

The aim of this research study is to analyze the influence of the level of education, as well as the level of information of the electorate on voter behavior. More precisely, we are interested in determining if better educated and well informed voters choose more policy and retrospectively oriented, which in turn results in better government performance. Furthermore, we are looking to determine the role of abstainers in the political process. We also want to identify voting behavior differences between developed and developing countries. To this end, we analyze and compare AmericasBarometer surveys data from Honduras (developing country with low education level), Chile (developing country with high education level) and the USA (developed country with high education level).

In this sense, we expect to find that:

- More educated and more informed people would make their electoral decision more policy and retrospectively oriented, which would incentivize the government to develop and implement more efficient policies that are adapted to the needs of the country.
- Abstainers, on the other hand, would make their electoral decision less policy and retrospectively oriented and more non-policy oriented, which would imply that they are not important in the political process and that the government should ignore them.
- Finally, we expected to see that in the developed country voters would behave more policy and retrospectively oriented, whereas in the developing countries they would make their decision more non-policy oriented, resulting in a worse performance of the government.

The structure of this paper is as follows: First, we briefly explain democracy and abstention in Honduras, Chile and the USA, as well as the electoral and party systems in these three countries. Second, we present the econometric approach and estimation strategy developed for the analysis of voting behavior and government performance. More specifically, we estimated a probabilistic voter model applying a Latent Class Model approach, as well as marginal and relative marginal effects. Subsequently, we give an overview of the AmericasBarometer survey datasets of the countries under study and a description of the variables used for the analysis. Afterwards, we show the empirical application of the model and the results of the government performance indicators. We finalize with a summary and our conclusions of this research study.

6.2. Democracy and Abstention in Honduras, Chile and the USA

In Honduras, democracy has existed since its independence from Spain in 1821, when all citizens of legal age were eligible to vote. Ever since, democracy has been the form of government. Despite some interruptions, due to coups d'état and dictatorships, the constitutional order was always reestablished and the democratic order always returned. On the other hand, before 1973, Chile was one of the oldest and most stable democracies in Latin America. However, between 1973 and 1990 there was a military dictatorship led by General Augusto Pinochet. Then the transition to democracy began again, starting with a plebiscite in 1988 followed by a presidential election in 1989. In the case of the United States of America (USA), its independence was declared in 1776. Then in 1788, the Constitution was ratified, and later in 1789, George Washington took office as the first president of the USA. In 1796, he refused to run for a third term and published his "Farewell Address", marking one of the first peaceful transfers of power in the history of this country and consolidating its status as a stable democratic state.

The form of government in Honduras is republican, democratic and representative. It is exercised by three powers: Legislative, Executive and Judicial, which are complementary and independent from each other. The Executive Power comprises the President and three Presidential Designates jointly elected, directly by the people and by simple majority of votes. The presidential term is four years and one re-election is now allowed. The electoral processes in Honduras are organized, coordinated and supervised by the Supreme Electoral Tribunal of Honduras (TSE). Two elections are held: primary elections, where political parties choose their candidates, and general elections, where the President, Deputies to the National Congress, Deputies to the Central American Parliament and Mayors are elected, as well as other political office holders. Through the years, Honduras has had various political parties. There are currently 10, where the two traditional and oldest ones, Partido Liberal de Honduras - PLH (1891) and Partido Nacional de Honduras - PNH (1902), predominated strongly and maintained what was considered a two-party system for many years. However, in the 2013 general elections, a newly created party (Partido Libertad y Refundación - LIBRE (2011)) came second, turning it into a multi-party system. Moreover, for the general elections of 2017, the coalition Alianza de Oposición was created to compete against the incumbent. The coalition was made up of the party LIBRE and the Partido Innovación y Unidad Social Demócrata - PINU-SD (1968), who obtained second

place in the elections, surpassing one of the oldest and traditional parties PLH.

The Chilean political system is a democratic republic and the form of government is presidential. Additionally, the Government of Chile is comprised by a set of state bodies that exercise political, administrative and executive functions, in accordance with the Constitution and the laws. The President of the Republic has the political leadership and is the maximum head of the Executive Power. The presidential mandate lasts for four years without the possibility of reelection for the following period. Chile holds presidential, parliamentary, regional and municipal elections throughout the country. These are managed, supervised and audited by the Electoral Service (Servel), which is an autonomous body, with its own legal personality and assets. The president is directly elected by an absolute majority of valid votes. If no candidate obtains such a majority, a second round will be held between the two candidates with the most votes. Currently, there are 25 legally constituted political parties, which is why it is considered a multi-party system. The main parties are: Unión Demócrata Independiente (1983), Renovación Nacional (1987), Partido Socialista de Chile (1933), Partido Demócrata Cristiano (1957) y Partido por la Democracia (1987).

The USA is a constitutional federal republic, with a presidential regime as a form of government based on the separation of powers into three branches: Executive, Legislative and Judicial. The authority of the Executive Power is vested in the President, who also serves as Head of State and Commander-in-Chief of the armed forces. Any candidate can be elected president twice, or once if that person served more than two years of the four-year term of another president. The election of the President is by indirect suffrage. The winner is determined by the votes of the Electoral College voters and is the candidate who obtains at least 270 votes from this Electoral College. Therefore, it is possible for a candidate to win the electoral vote and lose the popular vote. It is considered that in the USA a two-party system exists, since its electoral politics has been dominated by two important political parties since shortly after the founding of the republic. On the one hand, the Democratic Party has been the liberal and center-left party. On the other hand, the Republican Party has been the conservative and center-right party. Other parties with little representation and limited to a particular territory are the Green Party, the Libertarian Party, the Communist Party and the Constitution Party.

Even though, these three countries of the American continent have democratic governments, the state of democracy varies among them. According to The Economist Intelli-

gence Unit (2021), Honduras is considered a “Hybrid regime” with a Democracy Index of just 5.36. This is due to the fact that electoral fraud is frequently observed, which prevents them from being a free democracy. On the other hand, Chile is a country where fundamental civil and political liberties are not only respected, but also reinforced. Therefore, it is seen as a “Full democracy” and has a much higher score of 8.28. For its part, the USA, with a score of 7.92 is considered a “Flawed democracy”. This means that, despite the fact that elections are fair and free in this country, and basic civil liberties are respected, the levels of trust in political parties, elected representatives and governmental institutions have decreased.

Despite the imperfections of the democratic system, according to the data used in this research study, the voters of these three American countries somewhat agree that democracy is better than any other form of government. However, they are quite dissatisfied with the way democracy works in their respective countries. In addition, as shown by the results of the last presidential elections (see table 6.1), between 33.80% (in the USA) and 51.25% (in Chile) of voters decided to abstain. Furthermore, despite the fact that voting in Honduras is compulsory, in the electoral processes of the last 20 years, between a third and a half of the voters decided not to participate in the presidential elections (Tribunal Supremo Electora, 2022). Even in the last electoral process of 2021, which was described as a “massive voter turnout” more than 30% of the people registered to vote decided to abstain. On the other hand, in Chile, where voting is not compulsory, electoral abstention used to be low (around 10%). However, in the last three electoral processes abstention levels have been around 50%, showing some kind of dissatisfaction from the electorate (Tribunal Calificador de Elecciones, 2022). In the case of the USA, voting is not compulsory either and abstention levels over the past 20 years have been around 45% with the exception of the last presidential elections of 2020 where it decreased 10 percentage points (Federal Election Commission, 2022).

6.3. Econometric Approach and Estimation Strategy

6.3.1. Voter Behavior

Probabilistic Voter Model and Logit Model

In the rational choice theory, each person makes its decision individually and chooses the option they prefer or gives them the highest utility. Similarly, in political science, it is

assumed that voters gain utility from the policies implemented by a candidate when it is elected. According to Downs (1957), citizens choose, therefore, the party they believe will provide them a higher utility. However, if the party differential is equal to zero, they will abstain.

The probabilistic voter model is, nowadays, the workhorse model applied in voter studies and is estimated with Discrete Choice models, since they explain choices between two or more alternatives. Hence, in the context of political science, discrete choice models are exceptionally suitable, as researchers are more interested in the way results were achieved rather than the actual results. In order to derive the Discrete Choice model, it is common to apply a Random Utility Maximization (RUM) model. Here, the voter i chooses k among K alternatives only if this provides him the highest utility U_{ik} . In other words, the greater the utility of an alternative, the more likely is that the voter will choose it.

The utility U_{ik} is divided into the part that is known by the researcher (deterministic utility V_{ik}) and the random unknown part (individual-specific stochastic component μ_{ik}). We assume that the latter is independent and identically distributed (iid) and follows the Gumbel distribution (extreme value distribution Type I), i.e. μ_{iA} is not related to μ_{iB} and extreme values are allowed. In addition, for the analysis we considered the alternatives incumbent, opposition and abstention. Therefore, a logit model was derived according to McFadden (1974, 1982) since it allowed us to calculate the probability of choosing an alternative k from a set of alternatives K that can be represented as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (6.1)$$

Voting Components

According to the voter theory, the utility V_{ik} that a voter i associates with the alternative k includes three different components or voting motives: policy oriented (V_{ik}^P), retrospective oriented (V_{ik}^R) and non-policy oriented (V_{ik}^{NP}).

Policy Voting: If voters are well informed about politics, their decision is based on the policy platforms suggested by the parties/candidates. In this sense, according to the spatial voting model of Davis et al. (1970) and Enelow and Hinich (1984), the policy oriented voter's utility function can be calculated as the weighted distance between a

voter's preferred position x_{id} on a specific issue d and the perceived policy position of the party/candidate y_{kd} on the same issue:

$$V_{ik}^P = -\sum_d^D \beta_d (y_{kd} - x_{id})^2 \text{ where } D_{ikd} = (y_{kd} - x_{id}) \quad (6.2)$$

The coefficient β must always be negative, because the greater the distance between the voter's position and the party/candidate's perceived position, the lower is the utility and, consequently, the lower is the probability that the voter chooses this party/candidate. In the case of the alternative abstention, the minimal negative distance was used, because the greater the distance between the voter's position and the closest party/candidate, the higher is the utility and the probability of abstaining.

Retrospective Voting: As regards the retrospective voting motive, Fiorina (1981) implies that voters can evaluate the past performance of the incumbent based on measures of well-being realized during the presidential term. In this regards, voters use an observable welfare indicator Z_{ir} which is determined by implemented governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir}(\gamma_G) \quad (6.3)$$

Note that in the estimation of our model, we assume that the assessment of the past economic performance of the government has also an impact on the voters' evaluation of the opposition parties, as well as on the decision of refraining from voting.

Non-Policy Voting: Not all voters are well informed and aware of policies. Therefore, voters might also apply non-policy indicators to estimate their utility. For example, their socio-demographic characteristics x_{ij} , as well as, their party identification PI_i , which works as an intensifier in the favoritism towards a candidate from the preferred political party. The later, was included by Erikson and Romero (1990), Adams (2001) and Adams et al. (2005) in the voter's utility function. Additionally, the specific characteristics of the parties/candidates z_i , such as, appearance and charisma may also be relevant (Schofield, 2007). Furthermore, voters are frequently swayed by the campaign spending C_k or financial resources provided by international donor organizations like development aid. These are often granted on the condition that certain policies are implemented (Dollar and Easterly, 1999).

$$V_{ik}^{NP} = \sum_j^J \alpha_{kj} x_{ij} + \alpha_k PI_i + \alpha_k z_i + \sum_k^K \alpha_k C_k \quad (6.4)$$

Latent Class Model

The logit model already described assumes that all voters act in a homogeneous way. Therefore, to allow for heterogeneity this logit model was extended to a Latent Class Model (LCM). This is a measurement model in which individuals can be classified into groups or latent classes, based on their personal characteristics. So now the probability that voter i chooses alternative k is class-specific (c):

$$P_{ikc} = \frac{e^{V_{ikc}}}{\sum_{k=1}^K e^{V_{ikc}}} \text{ where } V_{ikc} = \beta_{kc} V_{ikc}^P + \delta_{kc} V_{ikc}^R + \alpha_{kc} V_{ikc}^{NP} \quad (6.5)$$

A vector of socio-demographic characteristics was defined to determine the class membership (referred as covariates). In the LCM the voter has an additional utility v_{ic} if he belongs to a group because of his socio-demographic characteristics x_i and therefore chooses differently from another group:

$$v_{ic} = \alpha_c + \sum b_c x_i \quad (6.6)$$

Then, based on this utility v_{ic} , a probability p_{ic} that an individual i belongs to a class c is calculated:

$$p_{ic} = \frac{e^{v_{ic}}}{\sum_{c=1}^C e^{v_{ic}}} \quad (6.7)$$

To decide the number of classes, an information criteria had to be used. The lower the value of the later, the better is the fit of the model. We followed De-Graft Acquah (2010) and Nylund et al. (2007), who suggest that the Bayesian Information Criterion (BIC) is a better criterion in determining the number of classes, since it appears to be consistent when using a relatively large sample size, such as those used in this research study.

Additionally to the model for classes, that estimates the class membership, the LCM also includes the model for choices, that determines which alternative is chosen. The

latter, contains two kinds of variables, attributes and predictors. The attributes are the alternative specific variables with generic coefficients and the predictors are the individual specific variables with alternative specific coefficients.

Then, in order to calculate the probability of the classes, one has to weight the probability that voter i chooses alternative k given that he belongs to class c (P_{ikc}) with the probability that voter i actually belongs to class c (p_{ic}):

$$\bar{P}_{ik} = \sum_c^C P_{ikc} * p_{ic} \quad (6.8)$$

Marginal Effects and Relative Marginal Effects

Since the probability \bar{P}_{ik} is logistically distributed, the algebraic signs of the coefficients indicate the direction of the impact, but the absolute values cannot be interpreted. Therefore, we first calculated marginal effects (ME), which show how sensitive are voters to changes in the policy, retrospective and non-policy components. In the case of the LCM, MEs can be calculated only for the variables included in the model for choices, this means that the covariates have to be excluded as there are used to estimate the class membership.

$$ME_{ic}^P = \frac{\partial P_{igc}}{\partial D_{igd}} = |\beta_{dc} P_{igc} (1 - P_{igc})| \quad (6.9)$$

$$ME_i^P = \sum_c^C ME_{ic}^P * p_{ic} \quad (6.10)$$

$$ME_{ic}^R = \frac{\partial P_{igc}}{\partial Z_{ir}(\gamma G)} = \left| P_{igc} \left(\delta_{gc} - \sum_k^K \delta_{kc} P_{ikc} \right) \right| \quad (6.11)$$

$$ME_i^R = \sum_c^C ME_{ic}^R * p_{ic} \quad (6.12)$$

$$ME_{ic}^{NP} = \frac{\partial P_{igc}}{\partial P I_i} = \left| P_{igc} \left(\alpha_{gc} - \sum_k^K \alpha_{kc} P_{ikc} \right) \right| \quad (6.13)$$

$$ME_i^{NP} = \sum_c^C ME_{ic}^{NP} * p_{ic} \quad (6.14)$$

where g refers to the party in the government.

These MEs point out to which extent changes the probability that party g wins the elections when there is a 1 unit change in the independent variables. In this case, it makes sense to look at the absolute value, since we wanted to analyze the strength rather than the direction of the impact.

Further, to assess the relative importance of the three voting motives, we calculated the relative marginal effects (RI) for each voter:

$$RI_i^P = \frac{ME_i^P}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (6.15)$$

$$RI_i^R = \frac{ME_i^R}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (6.16)$$

$$RI_i^{NP} = \frac{ME_i^{NP}}{ME_i^P + ME_i^R + ME_i^{NP}} \quad (6.17)$$

6.3.2. Government Performance

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for accountability and capture.

Government Accountability Indicator

In a country, there is low accountability, if the government has a lack of incentive to implement efficient policies that would increase the welfare of the society. Then, the function that elections should serve to control the government is not fulfilled. In this sense, the following government accountability index (GA) was developed:

$$GA = \frac{RI^P + RI^R}{RI^P + RI^R + RI^{NP}} \quad (6.18)$$

where the policy and retrospective RI can be added in order to compare policy vs non-policy voting. Here, the higher the relative importance of the non-policy component in voting behaviour, the lower is the government accountability index. For this estimation, the sum over all voters of the RI components is first calculated as:

$$RI^P = \sum_{i=1}^n RI_i^P \quad (6.19)$$

$$RI^R = \sum_{i=1}^n RI_i^R \quad (6.20)$$

$$RI^{NP} = \sum_{i=1}^n RI_i^{NP} \quad (6.21)$$

Government Capture Indicator

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority, usually the uneducated and uninformed voters. A large capture index can be expected in a country if the elections do not adequately fulfill their function of representing the interests of the whole society. This implies that a small group of voters has comparatively greater insights on political events. Accordingly, we assumed that the more non-policy oriented a person chooses, the less importance he has for political parties. Therefore, based on the ME_i^P we estimated individual relative political weights g_i :

$$g_i = \frac{ME_i^P}{\sum_{i=1}^n ME_i^P} \quad (6.22)$$

However, since voters cannot influence a political process individually, it is interesting to see which group from the electorate has a greater weight in the political process. Hence, we developed the following government capture index (GC):

$$GC_{1vs2} = \frac{\sum_{i \in 1} g_i}{\frac{a_1}{\sum_{i \in 2} g_i} a_2} \quad (6.23)$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

An index greater than 1 indicates that group 1 “captures” group 2. On the contrary, an index lower than 1 shows that group 2 “captures” group 1. Finally, an index equal to 1 implies that there is no capture.

6.4. Data

6.4.1. AmericasBarometer Surveys

The Latin American Public Opinion Project (LAPOP) is the main academic institution conducting public opinion polls in the Americas, with more than 30 years of experience. In this sense, the AmericasBarometer is LAPOP’s best-known survey research project and is the only scientifically rigorous and comparative survey that covers 34 nations including North, Central, and South America, as well as a significant number of countries in the Caribbean. The sophisticated design and use of probability samples ensure that the samples are nationally representative in each country. In addition a common questionnaire and country-specific questions are applied. The standardization methods and the common questionnaire allow valid comparisons between countries on topics including the economy, state capacity, trust in institutions, political opinions, corruption and security, among others. For this reason we decided to use this data for our comparative analysis between Honduras, Chile and the USA. The AmericasBarometer started in 2004/05, with 11 countries, and grew rapidly. The latest round took place in 2018/19 and includes more than 31.000 interviews in 20 countries. For our comparative analysis we use data from the AmericasBarometer 2018/19 round of surveys (the last round). In this round, 1.560 people were interviewed in Honduras, 1.638 in Chile, and 1.500 in the USA. According to the LAPOP (2019a) report, nationally representative surveys of voting age adults were conducted in all major languages, using face-to-face interviews in Latin America and the Caribbean and web surveys in the United States and Canada. Samples in each country were developed using a multi-stage probabilistic design and were stratified by major regions, size of municipality and by urban and rural areas within municipalities.

Due to missing values concerning the vote choice question, some observations had to be eliminated from these datasets. More specifically, after data cleaning, 600 complete observations were available for analyzing voting behavior in Honduras, 1368 in Chile and 1391 in the USA.

6.4.2. Variables

The variables under study were divided into dependent and independent:

Dependent Variable

In a probabilistic voter model the dependent variable is usually the actual or intended vote choice, which is the most important variable in voting behavior analysis. Accordingly, respondents had to answer to the following question:

If the next presidential elections were being held this week, what would you do?

where the interviewees could choose between the following alternatives:

- Would not vote.
- I would vote for the incumbent's candidate or party.
- I would vote for a candidate or party different from the current government.
- I would go to vote but leave the ballot blank or void it.
- Does not know / Does not respond.

To include the option abstention in the set of alternatives, we followed the approach of Thurner and Eymann (2000). More specifically, due to the fact that non-voters are often under-represented in surveys, we considered the people who expressed their intention not to vote ("Would not vote"), as well as those potential non-voters who said that were not sure of their decision ("Does not know / Does not respond").

Table 6.1 shows the results of the surveys, as well as the official presidential election outcomes for each country. In the case of Honduras and Chile, the results of the elections, as well as those of the surveys demonstrate that the majority of voters do not support the government candidate/party. Nonetheless, it is also important to highlight that both countries have multi-party systems, which implies that the opposition consists of several candidates/parties. As regard the USA, the results of the survey do not reflect the true outcome of the presidential elections. However, in both cases the difference between the two alternatives is not very high. Regarding the option abstention, with the exception of the figure shown by the survey in the USA, the percentages are quite high. More

specifically, between 30% and 50% of people are not motivated to cast a vote. In addition, these percentages increase in the developing countries.

Table 6.1.: Presidential Election Results

	Incumbent	Opposition	Abstention
<i>Honduras</i>			
<i>Presidential Election Results 2017</i>	24.10%	32.00%	43.90%
<i>AmericasBarometer survey 2018</i>	19.49%	34.36%	46.15%
<i>Chile</i>			
<i>Presidential Election Results 2017</i>	22.15%	26.60%	51.25%
<i>AmericasBarometer survey 2019</i>	20.25%	39.11%	40.64%
<i>USA</i>			
<i>Presidential Election Results 2020</i>	31.02%	35.18%	33.80%
<i>AmericasBarometer survey 2019</i>	45.12%	43.19%	11.69%

Source: Tribunal Supremo Electoral Honduras (2017), Servicio Electoral de Chile (2017), State Elections Offices (2020), LAPOP

Independent Variables

The independent variables were divided into:

Policy Voting: usually policy distances between the voter’s preferred policy position and the parties/candidates perceived policy positions are used as indicators. Nevertheless, the AmericasBarometer surveys do not include questions regarding policy positions on specific issues. In this sense, and based on Henning et al. (2018), we used a set of policy-related statements, where respondents were asked to what extent they agreed with them. In total, we considered four different statements which addressed inequality, social, taxes and unemployment issues. With them we first performed a Principal Component Analysis (PCA) to reduce the number of variables. This implied a one factor solution where high positive factor values can be interpreted as the implementation of more liberal policies from the government and, on the contrary, low and negative factor values as less intervention from the government. The calculated individual factor values were considered as the voter’s preferred policy position. For the parties’/candidates’ perceived policy

positions, the mean value of the voters who chose a particular alternative was estimated. This method is known as partisan constituencies and has been used by political scientists like Schofield et al. (2011). Finally, as mention before, distances were calculated as the difference between a voter's preferred position and the perceived policy position of the party/candidate. In the case of the alternative abstention, the minimal negative distance was used.

Retrospective Voting: in the surveys, questions considering sociotropic voting, as well as pocketbook voting were asked. More specifically, the questionnaires include two questions that assess the economic situation of the country (ELC_Country) and the personal living conditions (ELC_Own) in the present. In both cases, the answers were scaled from 1 = "Better" to 3 = "Worse". In addition, a question to evaluate the performance of the incumbent was asked, where 1 = "Very good" and 5 = "Very bad".

Non-policy Voting: included a whole set of sociodemographic variables such as gender, age, marital status, employed and education. Also, the variable party identification was incorporated, as well as the interest on politics and the degree of understanding of political issues. In addition, a set of questions was included asking about the trust in state institutions and the level of satisfaction with democracy. Moreover, a series of variables indicating the frequency with which the interviewees follow the news were added.

Finally, for the analysis of voting behavior, we created the dummy Abstention, which is equal to "1" if the person decided not to vote and "0" otherwise.

6.4.3. Comparative Descriptive Statistics

Table 6.2 displays the descriptive statistics for variables used in the analysis. Regarding the preferred policy positions of the voters, even though, they do not seem to completely disagree (1) neither agree (7) with any of the statements, in most cases it appears that they are more in favor of the implementation of liberal policies by the government. For example, respondents believe that stronger policies to reduce income inequality between the rich and the poor should be implemented and that the government must spend more on helping the poor. In the case of the retrospective variables, as expected, voters have a higher level of satisfaction with the performance of the government and with the overall

economic situation in the developed country. On the contrary, in the developing countries respondents are less satisfied. However, it is important to highlight that the level of satisfaction in Chile (a country with a higher education level) is higher than in Honduras (a country with a lower education level). Looking at the non-policy variables, in all countries, the proportion of men and women interviewed is similar, the average age is between 40 and 50 years old, and the number of people married or in common law marriage is similar to those with other marital statuses. Additionally, most of them are not catholic, only a small percentage are farmers, and the majority are employed. Unsurprisingly, differences can be found in the number of people living in the same household and in the level of education. Also, the interest in politics and the level of understanding of political issues in the USA is higher than in the developing countries. With the exception of WhatsApp, the frequency with which the interviewees follow the news is lower in Honduras than in Chile, and in Chile it is lower than in the USA. According to the surveys, party identification in the developing countries under study is very low, whereas in the USA 65% of the respondents expressed to be identified with a political party. Evidently, with the exception of the media, the overall trust in state institutions is higher in the developed country. Despite the imperfections of the democratic system, the data shows that voters of these three American countries somewhat agree that democracy is better than any other form of government. However, they are quite dissatisfied with the way democracy works in their respective countries.

Table 6.2.: Descriptive Statistics

Variables	Honduras					Chile					USA				
	N	Mean	Std Dev	Min	Max	N	Mean	Std Dev	Min	Max	N	Mean	Std Dev	Min	Max
<i>Policy</i>															
<i>Inequality</i>	600	5.02	2.03	1	7	1368	5.74	1.53	1	7	1391	3.96	2.19	1	7
<i>Social</i>	600	6.30	1.44	1	7	1368	5.64	1.55	1	7	1391	4.49	1.93	1	7
<i>Taxes</i>	600	3.90	2.06	1	7	1368	3.04	1.70	1	7	1391	3.75	1.94	1	7
<i>Employment</i>	600	4.02	2.19	1	7	1368	4.64	1.86	1	7	1391	4.58	1.91	1	7
<i>Retrospective</i>															
<i>Government_Performance</i>	600	3.15	1.32	1	5	1368	2.96	0.90	1	5	1391	2.90	1.66	1	5
<i>ELC_Country</i>	600	2.71	0.57	1	3	1368	2.23	0.69	1	3	1391	1.77	0.79	1	3
<i>ELC_Own</i>	600	2.48	0.67	1	3	1368	2.08	0.71	1	3	1391	1.86	0.74	1	3
<i>Non-Policy</i>															
<i>Gender</i>	600	0.48	0.50	0	1	1368	0.50	0.50	0	1	1391	0.52	0.50	0	1
<i>Age</i>	600	38.59	16.56	18	89	1368	41.54	16.39	18	92	1391	49.55	17.29	19	91
<i>Marital_Status</i>	600	0.58	0.49	0	1	1368	0.41	0.49	0	1	1391	0.57	0.50	0	1
<i>Religion</i>	600	0.35	0.48	0	1	1368	0.47	0.50	0	1	1391	0.19	0.39	0	1
<i>Farmer</i>	600	0.13	0.34	0	1	1368	0.04	0.20	0	1	1391	0.01	0.09	0	1
<i>Household_Size</i>	600	4.80	2.24	1	15	1368	3.75	1.76	1	13	1391	2.68	1.50	1	20
<i>Employed</i>	600	0.83	0.37	0	1	1368	0.90	0.30	0	1	1391	0.90	0.30	0	1
<i>Education</i>	600	1.50	1.10	1	6	1368	2.43	1.40	1	6	1391	3.41	1.51	1	6
<i>Political_Interest</i>	600	3.01	1.05	1	4	1368	3.05	1.05	1	4	1391	1.87	0.96	1	4
<i>Understand_Issues</i>	600	4.01	1.97	1	7	1368	4.33	1.77	1	7	1391	5.00	1.60	1	7
<i>News</i>	600	1.72	1.16	1	5	1368	1.52	0.91	1	5	1391	1.52	0.97	1	5
<i>News_Facebook</i>	600	3.91	1.54	1	5	1368	3.66	1.66	1	5	1391	2.78	1.64	1	5
<i>News_Twitter</i>	600	4.89	0.53	1	5	1368	4.78	0.83	1	5	1391	3.97	1.52	1	5
<i>News_Whatsapp</i>	600	4.31	1.31	1	5	1368	4.46	1.19	1	5	1391	4.76	0.88	1	5
<i>Party_ID</i>	600	0.29	0.45	0	1	1368	0.11	0.32	0	1	1391	0.65	0.48	0	1
<i>Trust_National_Congress</i>	600	2.95	1.97	1	7	1368	3.02	1.63	1	7	1391	3.35	1.72	1	7
<i>Trust_Parties</i>	600	2.52	1.79	1	7	1368	2.44	1.47	1	7	1391	3.11	1.62	1	7
<i>Trust_President</i>	600	2.94	2.28	1	7	1368	3.53	1.88	1	7	1391	3.83	2.40	1	7
<i>Trust_Media</i>	600	4.38	1.92	1	7	1368	3.83	1.73	1	7	1391	3.06	1.92	1	7
<i>Trust_Elections</i>	600	2.75	1.97	1	7	1368	4.26	1.80	1	7	1391	4.08	1.73	1	7
<i>Democracy</i>	600	4.22	1.85	1	7	1368	5.09	1.56	1	7	1391	5.50	1.59	1	7
<i>Satisfaction_Democracy</i>	600	2.73	0.81	1	4	1368	2.69	0.74	1	4	1391	2.42	0.79	1	4

Source: own calculation

6.5. Empirical Application and Results

6.5.1. Probabilistic Voter Model Estimations

We estimated a probabilistic voter model to determine which common factors influence voting behavior in Honduras, Chile and the USA. Since the importance of voting motives differ across voters, with the data described in the former section, we calculated different LCM specifications to explain this heterogeneity. The LCM consists of two sub-models, the model for choices that determines which alternative is chosen and the model for classes that defines class membership. In the latter, the personal characteristics of the voters are usually included as covariates. Different model specifications were estimated. However, for simplicity, in this paper we only present the optimal model (i.e. the one with the lowest Bayesian Information Criterion (BIC)) and the estimates derived from it.

To estimate the different LCM specifications, in each country, the incumbent was taken as reference alternative, meaning that the individual specific variables with alternative specific coefficients (Predictors) are interpreted in comparison to it. Table 6.3 shows the best LCM estimations for the three American countries. These models include only the independent variables that were significant for at least one alternative and/or class chosen via the z-score test. The sizes of the class memberships evidence a stronger heterogeneity in Chile and a weaker heterogeneity in the USA. Looking at the attributes, the alternative specific constants absorb all information not explicitly incorporated in the models. When significant, they had mostly a positive sign. In addition, the policy factor resulted significant with negative coefficients meaning that the greater the distance between a voter's preferred policy position and the perceived policy position of a party/candidate, the less is the utility and thus the less is the probability of choosing that party/candidate. On the other hand, in the case of the alternative abstention, as the variable has also a negative sign, the greater the distance between a voter's position and the perceived position of the nearest party, the higher is the utility and thus the higher is the probability to abstain. Regarding the predictors, the retrospective variable `ELC_Own` have significant positive signs so that a negative assessment of the personal economic situation increases the probability of either abstaining or voting for an opposition party/candidate. On the contrary, the variable `Party_ID` has significant negative coefficients, which implies that having party affiliation increases the probability of choosing the incumbent. Furthermore, the more the respondents trust elections in their country, the lower is the probability that

they will abstain or choose an opposition party/candidate and the higher is the probability they will vote for the government party. Finally, in the model for classes, the negative and significant intercepts in the developing countries indicate a bias towards belonging to class 2, whereas the positive and significant intercept in the USA reflects a bias towards being part of class 1. Moreover, the only covariate that resulted significant for all countries is the variable political interest. This indicates that the higher the interest in political matters the higher is the probability that the voter belongs to class 2 in Honduras and Chile, and to class 1 in the USA.

Table 6.3.: Latent Class Models

VARIABLES	Honduras (BIC = 1102.3050)				Chile (BIC = 2691.4471)				USA (BIC = 1762.9592)			
	Class 1 (0.6319)		Class 2 (0.3681)		Class 1 (0.5543)		Class 2 (0.4457)		Class 1 (0.7810)		Class 2 (0.2190)	
MODEL FOR CHOICES	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value	Coeff.	z-value
<i>Attributes</i>												
Abstention:(intercept)	0.4897	0.4355	-8.9233	-1.5287	2.0223	2.8190 **	-12.2540	-1.8442 .	-12.6242	-1.3705	2.8940	2.0888 *
Opposition:(intercept)	-2.1432	-1.4707	6.1160	1.8237 .	-2.2033	-0.8048	2.6150	3.3636 ***	-1.6461	-3.1332 ***	0.0423	0.0287
Policy_Distances	-0.1390	-1.7440 .	-0.3562	-1.7887 .	-0.0357	-0.8002	-0.7342	-2.7066 **	-0.8695	-11.2719 ***	-0.1332	-1.1861
<i>Predictors</i>												
Abstention:ELC_Own	0.9894	2.1499 *	2.6389	1.6704 .	0.7881	2.4811 *	1.1357	0.6155	-0.9067	-0.6097	0.1023	0.2858
Opposition:ELC_Own	1.4927	2.8796 **	-0.1813	-0.2414	0.7534	1.2559	-0.0552	-0.2276	1.4325	7.0801 ***	0.0241	0.0500
Abstention:Party_ID	-1.3134	-1.5236	-4.5034	-2.0465 *	-1.4141	-2.5242 *	-2.9608	-0.3930	4.3986	0.6211	-2.7396	-3.9711 ***
Opposition:Party_ID	-0.0155	-0.0166	-2.6118	-2.1058 *	0.4240	0.4525	-0.1741	-0.4019	-0.2940	-1.0944	0.1344	0.1400
Abstention:Trust_Elections	0.0067	0.0262	0.1358	0.2942	-0.4659	-3.0399 **	-0.4640	-0.6641	0.7015	0.8104	-0.2923	-2.3206 *
Opposition:Trust_Elections	0.0671	0.2249	-1.5319	-2.7513 **	0.0276	0.0815	-0.2846	-2.2004 *	-0.1954	-2.5743 *	-0.0606	-0.3767
MODEL FOR CLASSES	Coeff. z-value		Coeff. z-value		Coeff. z-value		Coeff. z-value		Coeff. z-value		Coeff. z-value	
<i>Covariates</i>												
classes:Intercept	-2.5626	-5.5887 ***			-2.5851	-9.1091 ***			4.8198	11.9521 ***		
classes:Political_Interest	1.0583	6.2745 ***			0.9206	8.4454 ***			-1.6169	-9.0167 ***		

*** p<0.001, ** p<0.01, * p<0.05, . p<0.10

Source: own estimation

For the optimal models we estimated the utilities and probabilities. Table 6.4 shows the mean probabilities for each country and alternative. Again, the results demonstrate that the developed country with the highest level of education is the one with the lowest abstention.

Table 6.4.: Mean Probabilities

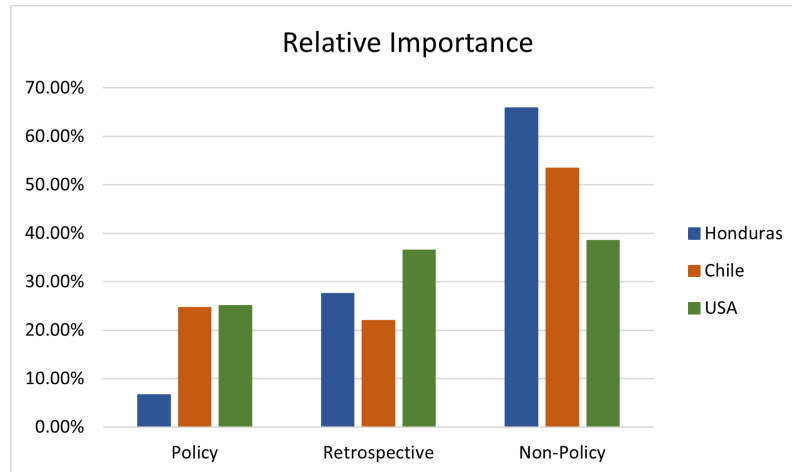
Alternatives	Mean Probabilities		
	Honduras	Chile	USA
<i>Abstention</i>	47.27%	40.66%	11.35%
<i>Opposition</i>	35.23%	39.07%	43.97%
<i>Incumbent</i>	17.50%	20.27%	44.68%
	100.00%	100.00%	100.00%

Source: own calculation

6.5.2. Voter Behavior in Honduras, Chile and the USA

As mentioned in the methodology section, the probabilistic voter model is a logistic regression model. Therefore, its coefficients only allow to measure the direction of the impact, but to evaluate the magnitude of such impact, marginal effects had to be calculated. In the case of the LCM, marginal effects can only be calculated for the variables included in the model for choices, therefore, the covariate was not taken into account. Furthermore, to understand how people make their electoral decision in these three American countries, we assessed the relative importance of the three voting motives by calculating the relative marginal effects. From our optimal models it is evident that all motives are significant determinants in the voting decision process. However, as displayed in figure 6.1, their importance vary significantly. Regardless of the level of development of the country or the level of education of voters, it is evident that the non-policy component is the most important with a mean value of the *RI* that goes from almost 40% to as high as 66%. Nonetheless, it is important to highlight that this component is lower in the developed country and higher in the uneducated developing country. Also, as expected, the retrospective, as well as the policy motives are higher in the USA when compared to the developing countries. In the case of Chile and Honduras, the policy component is higher in the former, whereas the retrospective component is higher in the latter. This demonstrates that voters do not need to be well educated or well informed in order to make their electoral decision more retrospectively oriented.

Figure 6.1.: Relative Importance of the Voting Motives

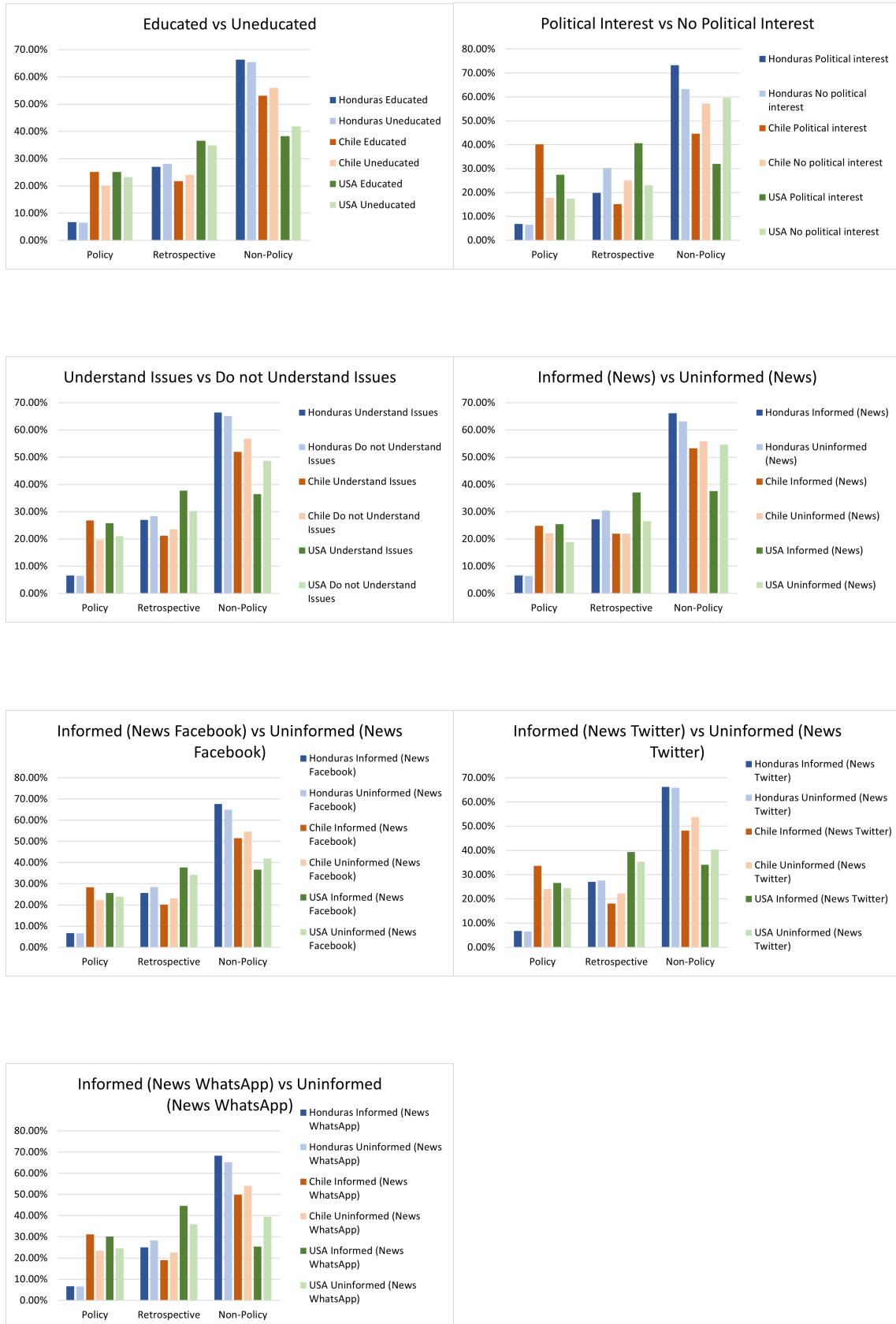


Source: own data

Going further in the analysis, we wanted to look for heterogeneity between educated and uneducated voters, as well as between informed and uninformed respondents. For this purpose, we estimated the mean values of the *RI* of different groups of the electorate. More specifically, we grouped voters according to their level of education, interest and understanding of political issues, as well as the frequency with which they follow the news. The results are presented as a series of comparative bar graphs in figure 6.2. Here we observed that, as expected, the informed and educated voters choose more policy oriented and the difference is more significant in the more educated countries (Chile and the USA). Regarding the retrospective voting, as predicted, in the USA, educated and informed voters choose more retrospectively oriented. However, it was interesting to see that, in both developing countries, it is the other way around, the uneducated and uninformed make their decision more retrospectively oriented. This shows again that voters do not need to be highly educated or well informed in order to choose more retrospectively oriented. In the highly educated countries, as expected, the more educated and informed respondents choose less non-policy oriented. However, in the case of Honduras is the other way around, the uneducated and uninformed people choose less non-policy oriented.

6. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

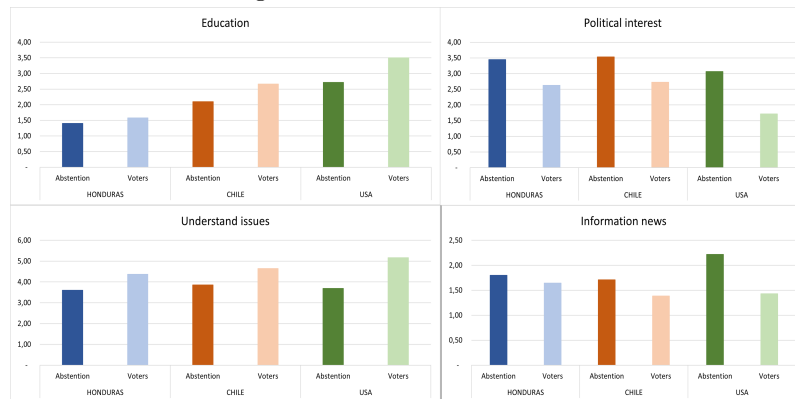
Figure 6.2.: Relative Importance of the Voting Motives by Groups



Source: own data

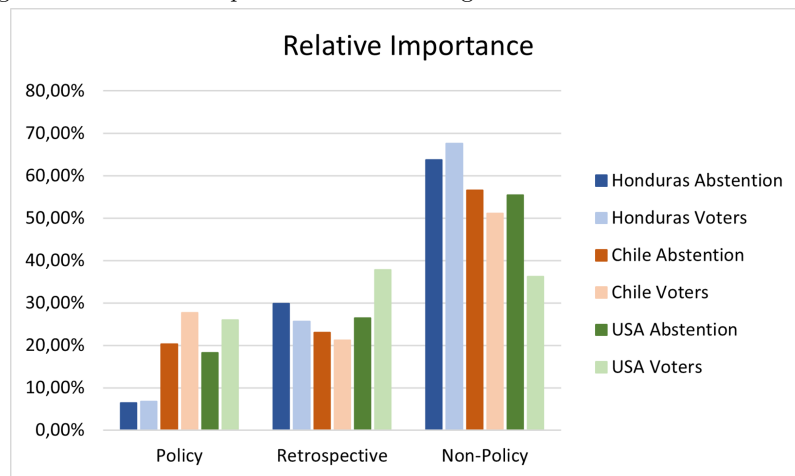
Looking now at abstainers, when compared to voters, they seem to be on average, less educated and have a less understanding of political issues. However, they also have more interest in political matters and seem to be more informed (see comparative bar graphs in figure 6.3). So, as it can be shown in figure 6.4 their level of education and information influence their voting behaviour in a way that, as expected, make them choose less policy oriented than voters. Nonetheless, in the developing countries, they make their decision more retrospectively oriented, whereas in the USA, those who decide to participate are the ones that choose more retrospectively.

Figure 6.3.: Abstainers vs. Voters



Source: own data

Figure 6.4.: Relative Importance of the Voting Motives for Abstainers and Voters



Source: own data

6.5.3. Government Performance Indicators

Government Accountability

Governments act accountable when they implement policies serving the needs and desires of voters rather than favoring special interests of lobbying groups or intrinsic policy preferences of politicians. Based on the estimated models, government accountability indices (*GA*) were calculated (table 6.5). As expected, the highest index belongs to the USA, while the lowest can be seen in Honduras. This low accountability of the Honduran government with regard to its electorate suggests that, voting does not play a very important role in its political process. Also in Chile, the high importance of the non-political component (greater than 50%), makes it evident that the function of elections of holding accountable the government is not really fulfilled in this country. On the other hand, in the developed country, the higher accountability index indicates that the USA government has a greater incentive to consider voters in the political process, rather than giving greater importance to lobbying activities and the intrinsic interests of the government.

Table 6.5.: Accountability Indices

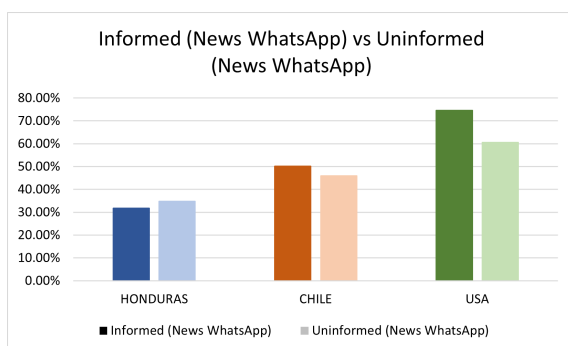
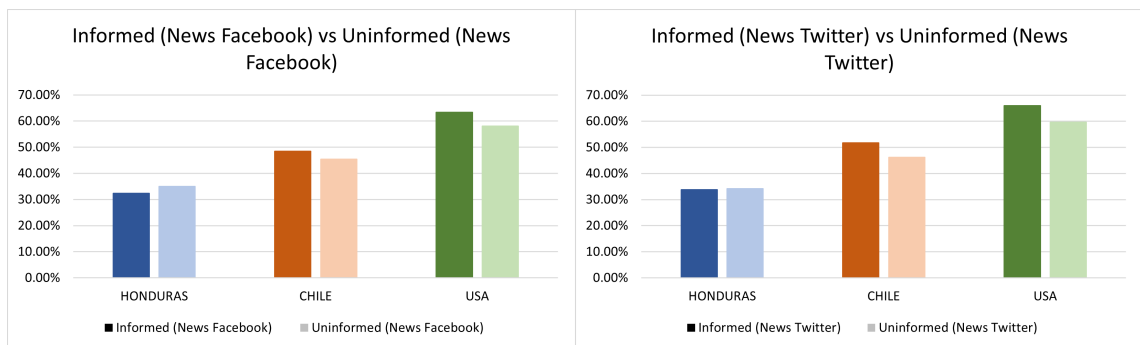
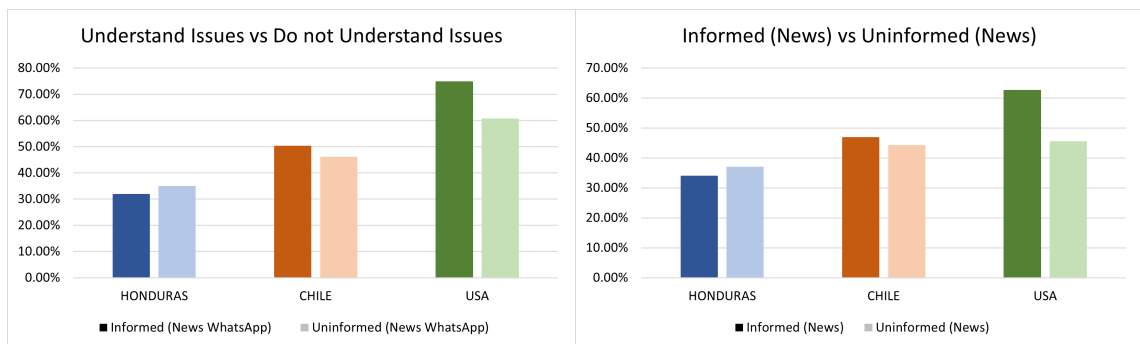
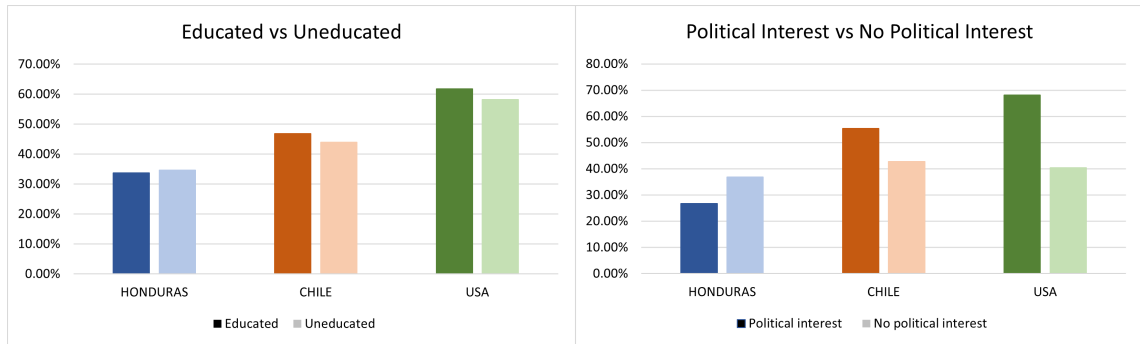
Accountability Index		
Honduras	Chile	USA
34.15%	46.62%	61.54%

Source: own calculation

In addition, when we analyzed the groups separately (see figure 6.5), we could observe that in Chile and in the USA (the countries with the highest level of education), as expected, informed and educated voters have a higher accountability index than their counterparts. Nonetheless, it is surprising to see that, in the case of Honduras, the uneducated and uninformed people make the government more accountable. This can be explained by the relative higher importance of the retrospective component for these groups in this developing country. It is also important to notice that the most significant difference is observed in the level of interest that respondents have in political matters.

6. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

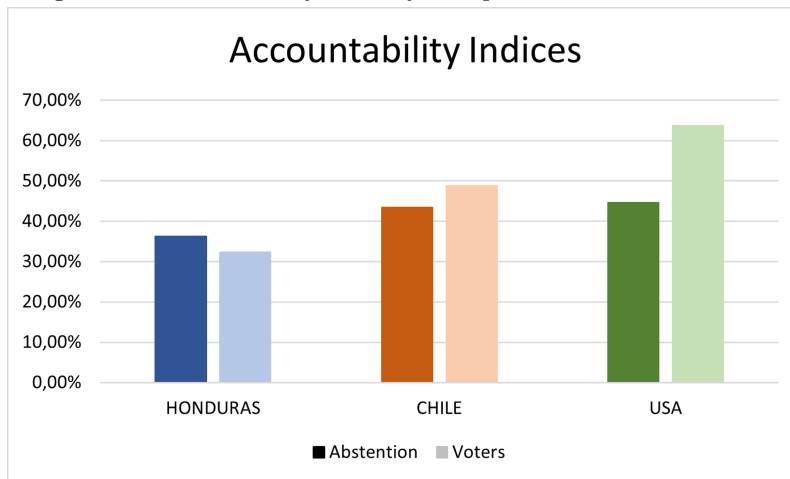
Figure 6.5.: Accountability Index by Groups



Source: own data

Regarding abstainers, as anticipated, in figure 6.6 it is evident that in the highly educated countries, non-voters play a less important role in the political processes of their respective countries than voters. However, it is surprising to see that in Honduras, due to the higher importance that abstainers give to the retrospective component, they can make the government more accountable than those who decide to cast a vote.

Figure 6.6.: Accountability Index by Groups for Abstainers and Voters



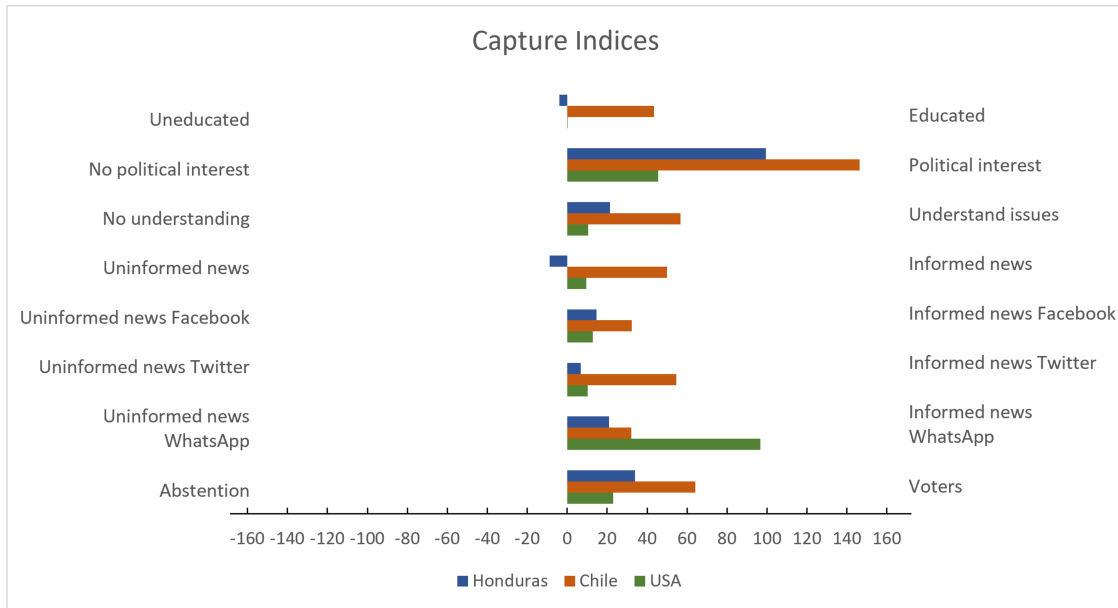
Source: own data

Government Capture

Even if a government acts accountable, electoral competition can still be biased in favor of special interests. To measure the political weight of the groups of voters previously analysed, government capture indices (*GC*) were calculated. These are displayed in figure 6.7 for the three American countries. In general, as anticipated, those who have a higher level of education, are more informed, have a greater interest in politics and a greater understanding of political issues, are the ones with a higher political weight. This implies that governments seeking for re-election have higher incentives to implement policies that benefits these social groups at the expense of their counterparts. Nevertheless, in a more detailed analysis, it can be observed that the level of education only seems to make a significant difference in Chile. In addition, higher capture indices can also be perceived for this country in most cases, whereas lower capture indices can be mainly observed for the USA. Furthermore, in both developing countries the highest *GC* index is shown by the groups that have more interest in political matters. Regarding the USA, voters who most often follow the news in WhatsApp capture their counterparts. In the case of abstainers, as

predicted, the lower importance they give to policy issues, when they make their decision, results in a lower political weight and, therefore are they being captured by voters.

Figure 6.7.: Capture Indices



Source: own data

6.6. Summary and Conclusions

Democracy is a political system that gives people the right to choose and control their government leaders. Although it is not perfect, it is often considered the best political system, since it is a just and convenient form of government allowing the population to live in harmony. In this regard, voting is a necessary condition for a political system to be democratic and, therefore, should guarantee the will of the majority of the population instead that of individual interests. However, not all the people who have the legal right to cast a vote at an election decide to participate. The reasons for electoral abstentionism are very diverse and include sociodemographic, psychological and political factors. Many consider that electoral abstention diminishes the strength of a country's democracy and undermines the legitimacy of elected leaders. However, a high number of abstentionists does not necessarily imply a danger to democracy. Examples of countries that have a high level of abstention and are no less democratic are Canada, Ireland and Switzerland.

Access to education and information are also important to achieve a fair society. More specifically, highly educated and well informed voters tend to choose more policy oriented,

which in turn should result in a better performance of the government. Also, in political theory, electoral competition is understood as a fundamental democratic mechanism that should serve to control the government. In this regard, responsible actions by the government can only take place if voters decide politically and retrospectively oriented. When voters choose retrospectively oriented, they base their decision on the observed governmental performance, i.e. they decide according to their well-being, as well as their satisfaction with the economic situation of the country and their own economic situation. Some researchers argue that information is important in retrospective voting in democracies, whereas other authors, explain that performance voting also happens among less informed individuals. Additionally, in both, developed and developing countries, voters take into account the economic situation of the country, as well as their own economic condition when making their electoral decision. Regarding the importance of abstainers from a political science point of view, it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored.

The aim of this research study was to analyze the influence of the level of education, as well as the level of information of the electorate on voter behavior. More precisely, we were interested in determining if better educated and well informed voters choose more policy and retrospectively oriented, which would incentivize the government to develop and implement more efficient policies that are adapted to the needs of the country. On the other hand, we were looking to see if abstainers make their electoral decision less policy and retrospectively oriented and more non-policy oriented, which would imply that they are not important in the political process and that the government should ignore them. We also wanted to identify voting behavior differences between developed and developing countries, where we were expecting to observe voters in the developed country to behave more policy and retrospectively oriented, whereas in the developing countries they would make their decision more non-policy oriented, resulting in a worse performance of the government. To this end, we analyzed and compared AmericasBarometer surveys data from Honduras (developing country with low education level), Chile (developing country with high education level) and the USA (developed country with high education level).

To analyse voting behaviour we estimated probabilistic voter models following a Latent Class Approach. Even though, Thurner and Eymann (2000) suggest the implementation of nested multinomial logit models to include abstention in the set of alternatives, we

decided to apply a LCM since it allows for heterogeneity, which was crucial in our analysis. The estimated probabilistic voter model determined that all three voting components are significant factors that influence voting behavior in Honduras, Chile and the USA. However, their importance vary significantly being the non-policy motive the most important in all countries. Nonetheless, as expected, the retrospective and the policy motives are higher in the USA when compared to the developing countries. In the case of Chile and Honduras, the policy component is higher in the former, whereas the retrospective component is higher in the latter. This demonstrates that voters do not need to be well educated or well informed in order to make their electoral decision more retrospectively oriented. We also observed that, in general, the informed and educated voters choose more policy oriented and the difference is more significant in the more educated countries (Chile and the USA). Regarding the retrospective voting, in both developing countries, it is higher for the uneducated and uninformed people, whereas in the USA it is higher for the educated and informed voters. In the case of the non-policy voting behavior, again, as expected, in Chile and the USA educated and informed voters choose less non-policy oriented. However, in Honduras, it is the other way around. Abstainers, when compared to voters, seem to be less educated and have a less understanding of political issues, even though they have more interest in political matters and seem to be more informed. Also, as anticipated, they choose less policy oriented than voters, but in the developing countries, they make their decision more retrospectively oriented.

As a result, the highest government accountability index belongs to the USA, while the lowest can be seen in Honduras. This low accountability of the Honduran government with regard to its electorate suggests that, voting does not play a very important role in its political process. Similarly in Chile, the high importance of the non-political component (greater than 50%), makes it evident that the function of elections of holding accountable the government is not really fulfilled in this country. On the other hand, in the developed country, the higher accountability index indicates that the USA government has a greater incentive to consider voters in the political process, rather than giving greater importance to lobbying activities and the intrinsic interests of the government. Furthermore, as predicted, we found that in Chile and in the USA informed and educated voters have a higher accountability index than their counterparts. Nonetheless, it is surprising to see that, in the case of Honduras, the uneducated and uninformed people make the government more accountable. This can be explained by the relative higher importance of the retro-

spective component for these groups in this developing country. Regarding abstainers, as anticipated, it is evident that in the highly educated countries, non-voters do not play a very important role in the political processes of their respective countries. Nevertheless, it is important to highlight that in Honduras, again due to the higher importance that abstainers give to the retrospective component, they can make the government more accountable than voters. As regards the government capture indices, in general, those who have a higher level of education, are more informed, have a greater interest in politics and a greater understanding of political issues, are the ones with a higher political weight. This implies that governments seeking for reelection have higher incentives to implement policies that benefits these social groups at the expense of their counterparts. In the case of abstainers, as predicted, the lower importance they give to policy issues when they make their decision, results in a lower political weight and, therefore are they being captured by voters.

From our results, we can conclude that, to achieve a high performance of the government, i.e the development and implementation of the best available policies, it is necessary that voters make their electoral decision mainly policy and retrospectively oriented. In this sense, our analysis suggests that in both, developed and developing countries, better educated and well-informed people, as well as those who decide to participate in elections choose more policy oriented and have a higher political weight than their counterparts. Nonetheless, retrospective voting can come from the educated, informed and voters, as well as from the uneducated, uninformed and abstainers. This suggests that in a developing country with a low level of education, like Honduras, abstainers can make their government more accountable, which implies a more important role in the political process and the power to incentivize the government to implement more efficient policies. This raises a question: "Is retrospective voting good or bad?"

Thus, if punishing the bad performance of the government or rewarding the good one can come from all groups of the electorate, and the government will develop and implement popular policies that will increase their chances of being elected, there is really no guarantee that these policies will be efficient. This is because the cycle of policies must also be considered, i.e. some efficient policies deliver results only in the long run and not before the next election. This implies that governmental parties seeking for re-election might have higher incentives to implement less efficient policies that deliver results in the near future and before the next elections. In this sense, an understanding of the circumstances

under which retrospective voting can translate into higher government performance and when it fails to do so is also important. Thus, if voters are aware of policy issues and know which policies are best adapted to the needs of the country, policy oriented voting behaviour is better to guarantee a high performance of the government. However, if the government is the one that has a better knowledge of the policies that should be developed and implemented to attend the needs of the country, then a retrospective oriented voting behaviour is better.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uninformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stabilitiy in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nyland, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinary Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters’ perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

7. Chapter

Conclusions

Feeding the world and reducing poverty has always been a challenge, as it is not only about solving the problem but also about tackling the causes. In addition, finding a solution results complex due to the trade-offs between agricultural production and the environment. In other words, to reduce poverty and undernutrition efficient agricultural production must be carried out without damaging the environment. On the other hand, countries like Honduras, where almost half of the population is rural and for whom agriculture is the primary source of income and food security, the agricultural sector is frequently affected by extreme weather events. In this context, this research project, mainly based in Honduras, is part of the program “Third Ways of Feeding The World” (TWW) which is looking to develop an interdisciplinary approach incorporating agricultural science, agricultural economics and agricultural ethics to better understand the trade-offs between sustainable agriculture and the environment.

To reduce poverty and undernutrition, as well as promote economic growth, is necessary the development and implementation of efficient policies. In political theory, elections are considered a fundamental democratic mechanism to guarantee high government performance, since they should reflect the interests of the whole society and serve to control the government. Also, it is widely accepted that democracy, when compare to other political systems, is more efficient promoting economic growth and well-being. The question then arises as to how can be explained the difference in economic development between democratic countries with multi-party systems. We assume that it is an incentive problem more frequently seen in developing countries, where the non-policy component is highly important in the voting decision. This in turn results in the implementation of distorted policies and low governmental performance. More specifically, low government accountability and high government capture, because the incumbent is not being controlled and policies are biased in favor of special interests.

Even in countries with well functioning democracies, not all the people who have the

right to vote in a presidential election decide to cast a vote. The reasons for electoral abstentionism are very diverse. They could include sociodemographic factors, like the level of education and income; psychological factors, such as the lack of interest in political matters; or political factors, like the lack of trust in political parties or in the electoral system. In political science, it is often assumed that, due to the lack of knowledge and interest in politics, abstainers are not important for the policy making process, therefore should be ignored by politicians and, consequently, cannot impact the performance of the government.

In this cumulative dissertation we studied voter behavior in Honduras, as well as in other developing and industrialized countries. We also analyzed empirically the impact of the electoral decision, both to vote and to abstain, in the performance of the government. In particular, we estimated indices to measure government accountability and government capture. In this sense, the existing literature has widely contributed to the understanding of voting behavior, as well as government performance. Fewer researchers, however, have incorporated the aspects of abstention/participation in voter behavior study. Thurner and Eymann (2000), for example, proposed a model where they consider the simultaneous choice among parties and the option abstention. Nonetheless, they did not include the retrospective component as a factor that influences the electoral decision. Neither did they study the impact of abstention on government performance. More specifically, they did not analyze the role of abstainers in the policy making process.

In our research study, for the analysis of voting behavior, we considered the three components or voting motives: policy oriented, retrospective oriented and non-policy oriented. Then, we estimated probabilistic voter models applying two different approaches: the Latent Class Model (LCM) and the Nested Multinomial Logit Model (NML). With the results of these estimations, we calculated marginal and relative marginal effects to measure the relative importance of the three voting motives. Finally, the relative marginal effects provided the necessary information to derive and calculate indices to measure government performance. More precisely, indices for government accountability and government capture were estimated. In other words, we were able to empirically analyze the factors that influence voter behavior and how this behavior incentivizes the government to develop efficient policies adapted to the needs of the country. To empirically test the theory, we used data from surveys carried out in Honduras, Senegal and Germany with questionnaires developed by us. In addition, for further comparative empirical research, data of Honduras,

Chile and the United States of America taken from the AmericasBarometer 2018/19 round of surveys was used.

Even though the countries under study have different levels of development, education and political knowledge, they are all considered democracies with multi-party systems. The results of the estimated probabilistic voter models determined that all three voting components are significant factors that influence voting behavior in all countries, however, their importance vary significantly being the non-policy motive the most important in all cases. Additionally, we observed that those who decide to abstain choose more retrospectively oriented and less policy oriented. Furthermore, as expected, the policy motive is higher in the industrialized countries when compared to the developing countries. We also observed that, in general, the informed and educated voters choose more policy oriented and the difference is more significant in the more educated countries (i.e. Chile and the USA). Regarding the retrospective voting, in developing countries, it is higher for the uneducated and uninformed people, whereas in the developed country it is higher for the educated and informed voters. The high relative importance of the non-policy voting motive contributes to low government accountability indices. This implies that the function of elections of holding accountable the governments is not really fulfilled. However, as expected, the government accountability index is higher in developed countries, where the level of education, information and political interest are higher and, consequently people choose more policy oriented. In addition, we found that in Chile and in the USA informed and educated voters have a higher accountability index than their counterparts. Nonetheless, it was surprising to see that, in the case of Honduras, the uneducated and uninformed people make the government more accountable. In the case of abstainers, in the highly educated countries, non-voters play a less important role in the political processes of their respective countries than voters, whereas in Honduras they can make the government more accountable than those who decide to cast a vote. Regarding the government capture indices, we found that, people who lack confidence in state institutions and perceive the existence of corruption have a higher political weight and also tend to abstain more. In general, those who have a higher level of education, are more informed, have a greater interest in politics and a greater understanding of political issues, are the ones with a higher political weight. However, in the case of Honduras, uneducated voters capture their counterparts. Probably one of the most interesting findings of this research study is that in developed and highly educated countries abstainers are being captured by those

who decide to participate in the elections, whereas in developing countries non-voters tend to have a higher political weight. This implies that governments seeking for reelection have higher incentives to implement policies that benefit these social groups at the expense of their counterparts.

From this whole research project we can draw some interesting conclusions. First, in developing countries, where people are less educated and politically aware, the relative importance of the non-policy component is higher and the resulting low accountability of the government with regard to its electorate suggests that voting does not play a very important role in their political processes. Therefore, governments do not have the necessary incentives to implement efficient policies that reduce poverty and promote economic growth. On the other hand, in developed countries, where people are more educated and politically aware, the relative importance of the policy component is higher. Consequently, government accountability indices are also higher, which means that governments have greater incentives to consider voters in the political process, rather than giving greater importance to lobbying activities and the intrinsic interests. This result could help to explain the difference in the economic development of democratic countries with multi-party systems. Nevertheless, it is worth noting that the high relative importance of the non-policy component in all countries, suggests a persistence of inefficient and biased policies, which can be observed in both, industrialized and developing countries. Second, a crucial factor that voters take into account when deciding whether to participate in electoral processes is corruption. In particular, in Honduras, the level of corruption has been increasing over the past years, which has been causing strong migrations to the USA, among other important social issues. This, together with the decrease in the level of satisfaction with the performance of the president, might result in higher levels of abstention in the upcoming general elections in Honduras in November 2021. Therefore, we could say that abstaining can be considered a way of punishing the bad performance of the incumbent, as well as expressing dissatisfaction with corrupt state institutions. Third, our results from developed countries support the literature arguing that abstainers should be ignored since they do not seem to respond to policies. On the contrary, in developing countries, many times voters are being captured by abstainers, thus, the latter can definitely develop the power to generate a higher government performance and incentive the incumbents to choose and implement more efficient policies if they decided to cast a vote, as they play a more important role in the policy making process. Fourth, it is widely accepted that, to achieve

a high performance of the government, it is necessary that voters make their electoral decision mainly policy and retrospectively oriented. In this sense, our analysis suggests that in both, developed and developing countries, better educated and well-informed people, as well as those who decide to participate in elections choose more policy oriented. Retrospective voting, however, can come from the educated, informed and voters, as well as from the uneducated, uninformed and abstainers. In addition, punishing the incumbent for a poor performance or rewarding him for a good one can be seen in both, developed and developing countries. This means that voters do not need to be highly educated or well informed in order to choose more retrospectively oriented.

The theoretical and empirical contributions of this cumulative dissertation to the literature on voting behavior are diverse. First, the inclusion of abstention as an alternative in the electoral decision process of voters. Although abstention has previously been considered in the study of voting behavior, we also analyzed the impact of the non-voting decision in the political process. In other words, we found that abstainers can have the power to incentive governments to perform better. In addition, we applied difference approaches to examine voting behavior. For instance, we estimated different model specifications using the Latent Class Approach, as well as the Nested Multinomial Logit Approach. However, since we are including the alternative abstention in the voting behavior analysis, a combination of both approaches could be ideal, which should be considered in future research studies. Furthermore, we performed a series of comparative analysis where we considered developing and developed countries, as well as countries with different education and political knowledge levels. Moreover, we studied the case of corruption in Honduras, not only to see its influence on the behavior of voters, but also to see its impact on the performance of the government.

Finally, retrospective voting, which should translate into better government performance, can come from both developed and developing countries, from informed and uninformed people, as well as from voters and abstainers, then a question arises: “Is retrospective voting good or bad?”. In this scenario, it seems that the governmental party will develop and implement popular policies that will increase their chances of being elected, but that will not necessarily be the more efficient policies that better match the specific country needs. Also, the cycle of policies has to be considered, i.e. some efficient or good policies deliver results only in the long run and not before the next electoral process. This implies that governmental parties seeking for reelection might have higher incentives to

implement less efficient policies that deliver results in the near future and before the next elections. In this sense, understanding the circumstances under which retrospective voting can translate into higher government performance and when it fails to do so is also important. In this sense, if voters are aware of policy issues and know which policies are best adapted to the needs of the country, policy oriented voting behaviour is better to guarantee a high performance of the government. However, if the government is the one that has a better knowledge of the policies that should be developed and implemented to attend the needs of the country, then a retrospective oriented voting behaviour is better.

7.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe

Despite some coups d'état, dictatorships and wars, Honduras and Germany are now considered democracies with multi-party systems. However, in the developing country, a big challenge nowadays is to get households out of poverty and to decrease undernutrition. By contrast, the industrialized country, is one of the largest agricultural producers in the European Union. Efficient policies are necessary to reduce poverty, as well as promote economic growth, and elections are considered a mechanism to guarantee high government performance. In reality, however, countries often face policy failure. Frequently it is assumed that voters in developing countries are less educated, informed and political aware and, therefore, choose more non-policy oriented, which leads to lower government performance. The objective of this paper was to identify the factors that drive voters electoral decision in both countries and determine the impact of this decision on government performance.

To this end, and using data collected in Honduras and Germany, we estimated different latent class model specifications. The results show that all voting motives are significant determinants of the voting decision in both countries. More specifically, different policy issues, as well as the variable assessing the personal living condition and party loyalty, have a significant influence in the voting decision of Hondurans and Germans. In addition, to measure the relative importance of these voting components, relative marginal effects were calculated. They showed that, in both countries, the non-policy motive is the most important one. Nevertheless, it is interesting to highlight that the relative importance of the non-policy component is higher in the developing country. The low relative

marginal effect values of the policy and retrospective voting motives contributed to low government accountability indices. This implies that the function of elections of holding accountable the government is not really fulfilled. However, as expected the government accountability index is higher in the developed country, where the level of education is higher and, consequently people choose more policy oriented. Regarding the government capture indices, we found that the indices for education level go in opposite directions. In the case of Honduras, uneducated voters have a higher political weight, whereas in Germany, the educated people are the ones with a higher political weight. This implies that the government seeking for reelection has higher incentives to implement policies that benefits these social groups.

In conclusion, it is widely accepted that democracy, when compare to other political systems, is more efficient promoting economic growth and well-being. The question then arises as to how the difference in economic development between Honduras and Germany can be explained when both countries are democracies with multi-party systems. According to our results, in Honduras, where people is less educated and probably also less politically aware, the high relative importance of the non-policy component and the resulting low accountability of the government with regard to its electorate suggests that voting does not play a very important role in its political process. Therefore, the government does not have incentives to implement efficient policies that are necessary to promote economic growth, get households out of poverty and decrease undernutrition. On the other hand, in Germany, where people is more educated and probably also more politically aware, the relative importance of the policy and the retrospective components are higher. Consequently, the government accountability index is also higher, which means that in this developed country voters do play a more important role in the political process. These results are consistent with the theory and literature in the sense that more educated and better informed voters choose more policy and retrospectively oriented (i.e. in developed countries). However, it is also important to highlight that the non-policy component was always the most important one regardless of the level of development of the country. This suggests that, empirically speaking, a persistence of inefficient and biased policies can be observed in both, industrialized and developing countries, due to a lack of incentives from the governments.

7.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras

Even though Honduras is a presidential representative democratic republic with a multi-party system, over the past decades, the level of abstention have been increasing. One of the reasons seems to be that many Hondurans do not trust the state institutions and perceive the existence of corruption. Also, the country has experienced a massive international migration, mainly due to high levels of poverty and violence. In this paper, we were looking to understand how people decide to vote or to abstain. More specifically, we analyzed the influence of political corruption on Hondurans' decision to participate in electoral processes. Moreover, we studied the impact of this decision on the government performance in Honduras.

To this end, we estimated nested multinomial logit models. In the optimal models, policy issues, retrospective variables and non-policy variables had a significant influence on the voting decision. It was interesting to see that the less satisfied were voters with the current economic condition of Honduras and their own living condition, the higher was the probability to either abstain or vote for an opposition party. Similarly, the models show that the less voters trust the president and the electoral system the lower is the probability of supporting the incumbent. Also, when voters lack confidence in state institutions and perceive the existence of corruption, the probabilities of participating in the electoral process are lower. Concerning the relative importance of the three voting motives, we observed that those who vote choose more policy and non-policy oriented, whereas those who decide to abstain choose more retrospectively oriented. Despite the fact that the accountability index in Honduras is quite low, we noticed that it increases for those who decide not to cast a vote. Furthermore, people who lack confidence in state institutions and perceive the existence of corruption, and consequently abstain, had a higher political weight. This implies that non-voters might have the "power" to incentive the government to choose and implement more efficient policies if they decided to cast a vote.

In conclusion, we can no longer affirm that people decide to abstain just because the act of voting is inconvenient and time-consuming, or that they decide to cast a vote because it is compulsory or merely a civic duty. There are other factors that voters take into account when they decide to vote or abstain. In the case of Honduras, we found that corruption,

poverty and violence play an important role in the voting decision process. In particular, in this country, the level of corruption have clearly increase since the survey was carried out in 2017. One of the evidences was the announcement by the administration of President Juan Orlando Hernández in January 2020 of the shut down of the Mission to Support the Fight against Corruption and Impunity in Honduras (also known as MACCIH), which was considered a significant setback in the fight against impunity. Also, in 2020 a new penal code was approved, which shortens sentences for some corruption-related crimes and, in consequence, promotes corruption. According to Transparency International (2018, 2021), Honduras went from having a CPI of 29 out of 100 points in 2017 (ranked 135 out of 180 countries) to a CPI of 24 out of 100 points in 2020 (ranked 157 out of 180 countries). In addition to this, in recent years there have been strong migration to the USA. The so-called migrant caravans, are people that travel from Central America (mainly Guatemala, El Salvador and Honduras) to the Mexico–United States border, looking for better living conditions. This might result in higher levels of abstention in the upcoming general elections in Honduras in November 2021. Also important to highlight is that the higher accountability index of non-voters implies that they can incentive the government to implement efficient policies, as they play a more important role in the political process than voters. Furthermore, since voters are being captured by abstainers, we could conclude that the latter can motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. Moreover, we could say that, not only voting for an opposition party, but also abstaining can be considered a way of punishing the bad performance of the incumbent, as well as expressing dissatisfaction with corrupt state institutions.

7.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany

Voting establishes legitimacy of politicians' actions in democracies. However, not everybody with voting rights decide to participate, therefore, the average turnout has decreased globally. Our aim was to identify factors driving people's decision to participate and determine the importance of abstainers in policy making processes in developed and developing countries.

To this end, we estimated a series of probabilistic voter models applying a latent class approach and using data from Honduras and Germany. Then, to assess the relative importance of the three voting motives we calculated the RMEs of each component for the incumbent and for the alternative abstention in both countries. Moreover, to evaluate whether the governments act accountable when they implement the policies that should serve the needs and desires of voters and to measure the political weight of certain groups of the electorate, government performance indicators were developed. We found that, in both countries, the three voting components are significant factors when the electorate makes their decision to either vote or abstain, as well as which political party to choose. More specifically, different policy issues, party loyalty and the level of satisfaction with the current economic condition of the country are important determinants in the decision making process of voters. Nonetheless, the importance of the different voting motives varies significantly. In Honduras, those who abstain choose more policy and non-policy oriented than those who decide to support the incumbent party, whereas in Germany, those who abstain choose more retrospectively oriented when compared to those who vote for the coalition government. The high importance of the non-policy component in both countries results in low accountability of the governments with regard to their electorate. However, as expected, it is important to highlight that the GA indices are higher in the developed country. We also found that those who abstain have a significantly higher GA index when compared with those who support the incumbent parties. In addition, in Honduras, abstainers capture all voters, whereas in Germany, non-voters are being captured by those who decide to participate in the elections.

We conclude that, although all voting motives resulted significant when deciding whether to participate or not in elections, both in developing and developed countries, the importance of these motives varies. For instance, in both cases the non-policy component is the most significant one, which implies that people with no party loyalty might not feel motivated to cast a vote. On the other hand, a less relevant factor that could also partially explain the phenomenon of abstention is the retrospective component. Here, if voters are dissatisfied with the current economic condition of the country, they have a higher tendency to refrain from voting. Furthermore, the low importance of the policy and the retrospective components suggests that the function of elections of holding accountable the governments is not really fulfilled in any of these countries. Nevertheless, abstainers play a more important role in the political processes than those who chose the government party.

What differs in both countries is the political weight of abstainers. For the developed country, our results support the literature that abstainers should be ignored since they do not seem to respond to policies as they showed a low political weight. Nonetheless, in the case of the developing country, our results contradicted the literature. They demonstrated that, in this country, non-voters seem to have the "power" to incentive the government to choose and implement more efficient policies if they decided to cast a vote as they have a higher political weight than voters. Hence, from the incumbents' perspective, if non-voters have a high political weight, it is clear that governments gain with high levels of abstention.

7.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America

Even in countries with well functioning democracies, not all people with the right to vote in a presidential election decide to cast a vote. In order to study the importance of abstention in presidential elections in Africa and Latin America, data from Senegal and Honduras was analyzed. These countries have experienced a decline in the voter turnout over the past elections, meaning that their party systems are somehow failing to engage voters in recent years. The purpose of this paper was to understand how people choose a certain party or candidate, as well as how they decide to either vote or abstain. Moreover, we are looking to determine whether non-voters could motivate the governments to design and implement efficient policies.

To achieve this, we estimated nested multinomial logit models including the alternative Abstention. Then, to evaluate government performance, we derived indicators for accountability and capture. Our results suggest that, for both countries, policy issues, the level of satisfaction with the performance of the president, as well as non-policy factors, are important when making an electoral decision. We also found that, less informed voters are less motivated to participate in electoral processes. The evidence also shows that most people have a tendency to make their decision more non-policy oriented. However, it is worth noting that non-voters tend to choose more policy and non-policy oriented than those who voted for the incumbent parties. In addition, those who decided not to support the government parties choose more retrospectively oriented than their counterparts. Further, despite the fact that the accountability indexes are quite low in both cases, those who do not support the incumbent hold the government more accountable. Therefore, if

governments fail to achieve the goals that they committed to, these voters are more likely to abstain or choose an opposition party to punish the bad performance. Moreover, abstainers and non-government voters capture those who decided to support the incumbent parties. This implies, that they have a higher political weight and therefore, could put pressure on the governments to choose and implement better policies if they decided to vote for the latter. In other words, abstainers can definitely develop the power to generate a higher government performance as they are clearly responsive to policies. On the other side, the incumbents would prefer that these groups do not participate in the electoral process due to their high political weights.

In conclusion, we can no longer affirm that people decide to abstain just because the act of voting is inconvenient and time-consuming, or that they decide to cast a vote because it is merely a civic duty. In these two developing countries, there are other factors that voters take into account when they decide to either vote or abstain, like their level of satisfaction with the performance of the president. Moreover, we found that less informed voters seem to be less motivated to cast a vote. In addition, the incumbent is held more accountable when all non-government supporters are considered. This means that they are important for the political process and, therefore should be taken into account. Furthermore, since in both countries, the incumbents' voters are being captured by all other groups within the electorate, we could conclude that abstainers, as well as those who have chosen an opposition party/candidate can motivate the incumbent to choose the policies that better match the specific country needs in order to reduce poverty and undernutrition and promote economic growth. In other words, contrary to the many theoretical works that have been published in political science explaining the lack of importance of abstainers, our results demonstrate that they can actually develop power to incentive a higher performance of the government. We could also say that, voters in Senegal and Honduras behave similarly and seem to punish the bad performance of the government, not only by voting for an opposition party, but also by abstaining.

7.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

Democracy is a political system that gives people the right to choose and control their government leaders. It is often considered a just and convenient form of government. Access

to education and information are also important to achieve a fair society as highly educated and well informed voters tend to choose more policy oriented, which in turn should result in better government performance. Further, responsible actions by the government also require retrospective voting, which, according to some researchers, comes from informed people, while others explain that it also occurs among less informed individuals. The aim of this research study was to analyze the influence that education and information have on voting behavior and its impact on government performance. We were also looking to identify differences between developed and developing countries. To this end, we compared AmericasBarometer surveys data from Honduras, Chile and the USA.

The estimated probabilistic voter model determined that all three voting components are significant factors that influence voting behavior in Honduras, Chile and the USA. However, their importance vary significantly being the non-policy motive the most important in all countries. Nonetheless, as expected, the retrospective and the policy motives are higher in the USA when compared to the developing countries. In the case of Chile and Honduras, the policy component is higher in the former, whereas the retrospective component is higher in the latter. This demonstrates that voters do not need to be well educated or well informed in order to make their electoral decision more retrospectively oriented. We also observed that, in general, the informed and educated voters choose more policy oriented. Regarding the retrospective voting, in both developing countries, it is higher for the uneducated and uninformed people, whereas in the USA it is higher the educated and informed voters. In the case of abstainers, they choose less policy oriented than voters. Nonetheless, in the developing countries, they make their decision more retrospectively oriented, whereas in the USA, those who decide to participate are the ones that choose more retrospectively. As a result, a low accountability of the Honduran government with regard to its electorate can be observed. This suggests that, voting does not play a very important role in its political process. On the other hand, in the developed country, the higher accountability index indicates that the USA government has a greater incentive to consider voters in the political process, rather than giving greater importance to lobbying activities and the intrinsic interests of the government. Furthermore, we found that in Chile and in the USA informed and educated voters have a higher accountability index than their counterparts. Nonetheless, it is surprising to see that, in the case of Honduras, the uneducated and uninformed people make the government more accountable. Regarding abstainers, in the highly educated countries, non-voters play a less important role in

the political processes of their respective countries than voters. However, it is surprising to see that in Honduras, due to the higher importance that abstainers give to the retrospective component, they can make the government more accountable than those who decide to cast a vote. When analyzing the government capture indices we observed that, in general, those who have a higher level of education, are more informed, have a greater interest in politics and a greater understanding of political issues, are the ones with a higher political weight. In the case of abstainers, as predicted, the lower importance they give to policy issues, when they make their decision, results in a lower political weight and, therefore are they being captured by voters.

From our results, we can conclude that, to achieve a high performance of the government, i.e the development and implementation of the best available policies, it is necessary that voters make their electoral decision mainly policy and retrospectively oriented. In this sense, our analysis suggests that in both, developed and developing countries, better educated and well-informed people, as well as those who decide to participate in elections choose more policy oriented and have a higher political weight than their counterparts. Nonetheless, retrospective voting can come from the educated, informed and voters, as well as from the uneducated, uninformed and abstainers. Thus, if punishing the bad performance of the government or rewarding the good one can come from all groups of the electorate, and the government will develop and implement popular policies that will increase their chances of being elected, there is really no guarantee that these policies will be efficient. This is because the cycle of policies must also be considered, i.e. some efficient policies deliver results only in the long run and not before the next election. This implies that governmental parties seeking for re-election might have higher incentives to implement less efficient policies that deliver results in the near future and before the next elections. In this sense, an understanding of the circumstances under which retrospective voting can translate into higher government performance and when it fails to do so is also important. In this sense, if voters are aware of policy issues and know which policies are best adapted to the needs of the country, policy oriented voting behaviour is better to guarantee a high performance of the government. However, if the government is the one that has a better knowledge of the policies that should be developed and implemented to attend the needs of the country, then a retrospective oriented voting behaviour is better.

8. Chapter

Zusammenfassung

8.1. Voter Behavior and the Impact on Government Performance: Empirical Application of a Latent Class Model in Latin America and Europe

Honduras steht heute wie viele Entwicklungsländer vor einer großen Herausforderung: Es gilt, die Haushalte aus der extremen Armut herauszuführen und die Unterernährung zu verringern. Nach Angaben des The World Bank (2020) lebte 2018 fast die Hälfte der Bevölkerung (48,3%) unterhalb der nationalen Armutsgrenze. Darüber hinaus berichtete das Global Agriculture and Food Security Program (2018), dass fast die Hälfte der Bevölkerung auf dem Land lebt und der Agrarsektor den Großteil der Beschäftigung auf dem Land generiert, die Produktivität jedoch gering ist. Andererseits lebten in Deutschland im Jahr 2018 nur 14,8% der Bevölkerung unter der nationalen Armutsgrenze (The World Bank, 2018). Laut The World Bank (2021b) sind in diesem entwickelten Land, das als einer der größten Produzenten in der Europäischen Union gilt, nur 1,21% der Menschen im erwerbsfähigen Alter im Agrarsektor beschäftigt (BMEL, 2020). Effiziente politische Maßnahmen sind notwendig, um die Armut zu verringern und das Wirtschaftswachstum zu fördern. In der politischen Theorie gelten Wahlen als ein Mechanismus, der eine hohe Regierungsleistung garantiert, da sie die Interessen der gesamten Gesellschaft widerspiegeln und der Kontrolle der Regierung dienen sollen. In der Realität führt der Wahlkampf jedoch häufig zur Umsetzung verzerrter politischer Maßnahmen und zum Scheitern der Politik, da die Rechenschaftspflicht der Regierung gering ist und die Regierung in hohem Maße von ihr vereinnahmt wird. Da gewählte Politiker bestrebt sind, ihren Stimmenanteil zu maximieren, muss das Verständnis ineffizienter und verzerrter politischer Maßnahmen auf der Analyse des Wahlverhaltens beruhen, und heutzutage ist das probabilistische Wählermodell das am häufigsten angewandte Modell in der Wählerforschung.

Einige Forschungsstudien legen nahe, dass viele Wähler ihre Wahlentscheidung hauptsächlich auf nicht-politischen Faktoren stützen und deshalb von Interessengruppen durch Wahlkampfkosten kontrolliert werden (Magee et al., 1989; Potters et al., 1997; Austen-

Smith, 1987; Baron, 1994; Coate, 2004). Darüber hinaus verfolgten Lazarsfeld et al. (1968) and Lipset and Rokkan (1967) den soziostrukturellen Ansatz und argumentierten, dass beispielsweise der wirtschaftliche Status, die Religion und das Alter der Wähler einen Einfluss auf ihre Wahlentscheidung haben. In diesen Szenarien gäbe es für die gewählten Politiker keinen Anreiz, den Bedürfnissen und Wünschen der Wählerschaft zu entsprechen, was zu einer schlechten Regierungsleistung führe. Andere Forscher erklärten, dass die Wähler verschiedene Faktoren berücksichtigen, bevor sie eine Partei oder einen Kandidaten wählen. So ging die klassische Theorie von Downs (1957) davon aus, dass die Bürger die Kandidaten auf der Grundlage ihrer angekündigten Parteiprogramme (d. h. politikorientiert) bewerten. Darüber hinaus schlug Grossman and Helpman (1996) vor, dass Wähler ihre Wahlentscheidung sowohl auf politikorientierte Faktoren als auch auf nicht politikorientierte Faktoren stützen, je nach ihrem Informationsstand über Politik. Henning et al. (2018) und Seide (2014) kombinierten die Analyse von Wahlverhalten und Regierungsleistung und bezogen die retrospektive Komponente als Wahlmotiv mit ein. Es ist allgemein bekannt, dass Länder, auch wenn es sich um Demokratien handelt, unterschiedliche Anreize für Politiker haben, öffentliche Dienstleistungen zu erbringen, das Wirtschaftswachstum zu fördern und die Armut zu verringern. Es wird oft angenommen, dass die Wähler in Entwicklungsländern weniger gebildet und politisch weniger informiert sind, was zu einer geringeren Leistung der Regierung führt. Pande (2011) erklärte, dass begrenzte Informationen eine Erklärung für die geringe Qualität der Politiker in Demokratien mit niedrigem Einkommen sind. Des Weiteren argumentieren Bardhan and Mookherjee (2000), dass eine voreingenommene Politik durch die Existenz von uninformierten Wählern entsteht. Darüber hinaus weist Arnold (2011) darauf hin, dass die Korruption in lateinamerikanischen Ländern häufig unterschätzt wird, da die meisten korrupten Handlungen versteckt und nicht gemeldet werden. Infolgedessen treffen die Menschen ihre politischen Entscheidungen auf der Grundlage begrenzter Informationen, was zu einer geringen Rechenschaftspflicht der Regierung führt. Andererseits erklären Carmines and Stimson (1980), dass Problemwähler besser ausgebildet, besser informiert und aktiver in der Politik sind. Darüber hinaus weist Schachter (1995) darauf hin, dass eine angemessene Bildung der Bürger und ein Informationsaustausch erforderlich sind, um eine effiziente und reaktionsfähige Regierung zu erreichen. In diesem Zusammenhang waren wir daran interessiert, festzustellen, ob es einen signifikanten Unterschied im Wahlverhalten und dessen Auswirkungen auf die Regierungsleistung zwischen den beiden Ländern gibt, wenn man

den Entwicklungsstand berücksichtigt.

Zu diesem Zweck haben wir ein probabilistisches Wählermodell entwickelt, das einen Latent-Class-Ansatz enthält, um Heterogenität zu berücksichtigen. Darüber hinaus berechneten wir relative marginale Effekte, um die relative Bedeutung der drei Wahlkomponenten zu messen. Um die Auswirkungen des Wahlverhaltens auf die Leistung der Regierung zu verstehen, haben wir Indizes entwickelt, um die Rechenschaftspflicht der Regierung und die Vereinnahmung der Regierung zu schätzen. Für die Analyse verwendeten wir Daten aus Wählerumfragen in Honduras und Deutschland. Die Fragebögen enthielten Informationen zu demografischen Statistiken, nicht-politisch orientierten Motiven, Wahlentscheidungen, politischen Positionen und der Einschätzung der wirtschaftlichen Lage sowie der persönlichen Lebensbedingungen.

Die Ergebnisse zeigen, dass alle Wahlmotive signifikante Determinanten der Wahlentscheidung in Honduras und Deutschland sind. Die relative Bedeutung der nicht-politischen Komponente ist in den Entwicklungsländern höher, was zu einem niedrigen Index der Rechenschaftspflicht der Regierung beiträgt. Dies bedeutet, dass die Funktion von Wahlen, die Regierung zur Rechenschaft zu ziehen, nicht wirklich erfüllt wird. Somit hat die Regierung keine Anreize, effiziente politische Maßnahmen umzusetzen, die zur Förderung des Wirtschaftswachstums, zur Überwindung der Armut in den Haushalten und zur Verringerung der Unterernährung notwendig sind. Andererseits ist der Index für die Rechenschaftspflicht der Regierung erwartungsgemäß in den Industrieländern höher, in denen auch das Bildungsniveau höher ist und die Menschen stärker politisch orientiert wählen. Dies bedeutet, dass die Wähler in Deutschland eine wichtigere Rolle im politischen Prozess spielen. Was die Vereinnahmung durch die Regierung betrifft, so haben wir festgestellt, dass die Indizes für das Bildungsniveau in entgegengesetzte Richtungen gehen. Im Fall von Honduras haben ungebildete Wähler ein höheres politisches Gewicht, während in Deutschland die gebildeten Menschen ein höheres politisches Gewicht haben. Dies bedeutet, dass die Regierung, die eine Wiederwahl anstrebt, größere Anreize hat, eine Politik umzusetzen, die diesen sozialen Gruppen zugute kommt. Wir kamen zu dem Schluss, dass die Ergebnisse mit der Theorie und der Literatur in dem Sinne übereinstimmen, dass gebildete und besser informierte Wähler eher eine Politik wählen, die auf die Zukunft ausgerichtet ist (d. h. in entwickelten Ländern). Es ist jedoch auch wichtig hervorzuheben, dass die nicht-politische Komponente immer die wichtigste war, unabhängig vom Entwicklungsstand des jeweiligen Landes. Dies deutet darauf hin, dass sowohl in den Industrie- als auch in den

Entwicklungsländern aufgrund mangelnder Anreize seitens der Regierungen weiterhin eine ineffiziente und einseitige Politik zu beobachten ist.

8.2. To Vote or to Abstain?: Analysis of the Influence of Corruption on Voting Behavior Applying a Nested Multinomial Logit Model for Honduras

Korruption, auch bekannt als Machtmissbrauch, bezeichnet den Missbrauch der ihnen anvertrauten Befugnisse durch Amtsträger, um persönliche Vorteile zu erlangen, was gegen das Gesetz und moralische Grundsätze verstößt. Im besonderen Fall von Honduras ist das Problem der Korruption so groß, dass man oft von einem "Betriebssystem" (Chayes, 2017; Lehmann, 2018) spricht, da es aus ausgeklügelten Netzwerken besteht, die darauf abzielen, den Nutzen ihrer Elitemitglieder zu maximieren. Dieses mittelamerikanische Land gilt heute als eines der korruptesten Länder der Welt. Laut Transparency International (2021) liegt der aktuelle Korruptionswahrnehmungsindex (CPI) von Honduras bei 24 von 100 Punkten, womit das Land auf Platz 157 von insgesamt 180 Ländern rangiert. Am 19. Januar 2016 unterzeichneten die Organisation Amerikanischer Staaten und die Regierung von Honduras ein Abkommen zur Einrichtung der Mission zur Unterstützung des Kampfes gegen Korruption und Straflosigkeit in Honduras (auch bekannt als MACCIH). Nach Ablauf ihres vierjährigen Mandats hat der honduranische Präsident Juan Orlando Hernández jedoch keine Verlängerung des Mandats genehmigt, so dass die Mission ihre Tätigkeit im Januar 2020 einstellen musste. Darüber hinaus verabschiedete der honduranische Kongress ein höchst umstrittenes neues Strafgesetzbuch, mit dem die Strafen für Korruption reduziert wurden. In diesem Sinne weisen Azfar et al. (2001) darauf hin, dass Korruption der wirtschaftlichen Entwicklung von Ländern schadet, und Rollón and Álvarez García (2019) kommt zu dem Schluss, dass sie sich auf die Qualität der Demokratien und die Entwicklung der lateinamerikanischen Länder sowie auf die öffentliche Meinung auswirkt, was wiederum das Misstrauen in das System verstärkt. Nach Ansicht von Millares (2020) breitet sich die Korruption in Entwicklungsländern leichter aus und schwächt die demokratische Struktur. McFerrin (2017) argumentiert, dass Korruption eine der Ursachen für die Armut in Honduras ist. Darüber hinaus ist die Korruption einer der Gründe, warum viele Honduraner in Angst leben, denn sie hat zu Polizeibrutalität und hohen Mordraten beigetragen (Gibson, 2020). In diesem Entwicklungsland

leben 48,3% der Bevölkerung unterhalb der nationalen Armutsgrenze (The World Bank, 2018). Es gilt auch als einer der gewalttätigsten Orte der Welt mit einer Rate von 38,9 Opfern von vorsätzlichen Tötungsdelikten pro 100.000 Einwohner im Jahr 2018, während die weltweite Rate nur 5,8 betrug (United Nations Office on Drugs and Crime, 2018). Korrupte politische Institutionen, Armut und Gewalt in Honduras fördern die Migration in die Vereinigten Staaten (USA). Trautmann and Munoz (2019) erklären, dass einige der Ursachen für den honduranischen Exodus eine hohe Armutsrate, ein korruptes politisches System und eine gescheiterte Sicherheitspolitik sind. In ähnlicher Weise weisen Human Rights Watch (2021) darauf hin, dass viele Menschen aufgrund des gewalttätigen organisierten Verbrechens gezwungen sind, das Land zu verlassen.

Viele Studien argumentieren, dass mangelndes Vertrauen in das System und politische Unzufriedenheit zu Wahlenthaltung führen können (James Alt and Fox, 1977; Sabucedo and Cramer, 1991; Ragsdale and Rusk, 1993; Narud and Valen, 1996; Vilajosana, 1999; Cebula, 2005; Damore et al., 2011). Bezüglich der Korruption stellten Stockemer et al. (2012), Stockemer (2013) und CAILLIER (2010) fest, dass die Bürger mit zunehmender politischer Korruption eher zur Wahlenthaltung neigen. KOSTADINOVA (2009) geht davon aus, dass das Vertrauen in den demokratischen Prozess und damit auch die Wahlbeteiligung abnimmt, wenn die Wähler das Vorhandensein von Korruption wahrnehmen. Außerdem könnten wir davon ausgehen, dass die meisten Menschen, die illegal in die USA einwandern, nicht in der Lage sind, sich an honduranischen Wahlen zu beteiligen. Folglich könnte man sagen, dass Armut, Gewalt und Korruption die Abwanderung von Wählern verursachen, was wiederum die Wahlbeteiligung in Honduras senkt. Der Wahlwettbewerb in demokratischen Systemen sollte eine hohe Regierungsleistung fördern, doch in der Realität führt der Wahlwettbewerb häufig zu einem Scheitern der Politik. Dies liegt daran, dass die Entwicklung politischer Maßnahmen oft ineffizient und aufgrund fehlender Anreize seitens der Regierung zugunsten von Sonderinteressen beeinflusst wird. Hinzu kommt, dass sich selbst in Ländern mit gut funktionierenden Demokratien nicht alle Wahlberechtigten zur Stimmabgabe entscheiden. Viele Autoren haben die Stimmenthaltung in Wahlprozessen analysiert. Downs (1957) erklärte, dass die Bürger die Partei wählen, von der sie glauben, dass sie ihnen einen höheren Nutzen bringt. Wenn der Unterschied zwischen den Parteien jedoch gleich Null ist, werden sie sich der Wahl enthalten. Später konzeptualisierte Riker and Ordeshook (1973) die Wahl des Bürgers als einen zweistufigen Prozess, bei dem der Wähler zunächst einen bevorzugten Kandidaten identifiziert und dann entscheidet, ob er

wählen geht oder sich der Wahl enthält. Darüber hinaus haben Thurner and Eymann (2000) ein Modell vorgeschlagen, in dem sie die gleichzeitige Wahl zwischen Parteien und die Option der Stimmenthaltung berücksichtigen. In dieser Arbeit haben wir den Einfluss der politischen Korruption auf die Entscheidung der Honduraner, an Wahlen teilzunehmen, analysiert. Außerdem haben wir untersucht, wie sich diese Entscheidung auf die Leistung der Regierung auswirkt. In diesem Sinne ist ein Verständnis des Wählerverhaltens von entscheidender Bedeutung, um zu erkennen, welche Anreize Politiker haben, sich für eine Politik zu entscheiden, die den spezifischen Bedürfnissen des Landes besser entspricht.

In diesem Zusammenhang haben wir ein verschachteltes multinomiales Logit-Modell geschätzt, das erstmals von McFadden (1977) vorgeschlagen wurde und auf der Idee beruht, dass einige Alternativen in mehreren Verschachtelungen zusammengefasst werden können. Genauer gesagt haben wir versucht, das probabilistische Wählermodell der Partei-/Kandidatenwahl mit der Wahlbeteiligung/-enthaltung in einem einzigen verschachtelten multinomialen Logit-Modell zu kombinieren, das auf dem Ansatz von Croissant (2012) und Greene (2008) basiert. Anschließend berechneten wir marginale und relative marginale Effekte und entwickelten Rechenschafts- und Erfassungsindizes, um die Auswirkungen der Wahlentscheidung der Wähler auf die Leistung der Regierung zu untersuchen. Für die empirische Anwendung haben wir zwei Datenquellen verwendet, die in Honduras erhoben wurden. Erstens Daten aus einer Haushaltsbefragung mit detaillierten Informationen zu den sozioökonomischen und demografischen Merkmalen der Haushalte. Zweitens Daten aus einer Wählerbefragung, um die Überzeugungen und politischen Präferenzen der Haushalte zu untersuchen. Dabei geht es insbesondere um nicht-politisch orientierte Motive, die beabsichtigte Wahlentscheidung, politische Fragen und rückblickende Motive.

In den geschätzten optimalen Modellen hatten alle drei Komponenten (politische, nicht-politische und retrospektive) einen signifikanten Einfluss auf die Wahlentscheidung. Es war interessant zu sehen, dass die Wahrscheinlichkeit, sich entweder der Wahl zu enthalten oder für eine Oppositionspartei zu stimmen, umso höher war, je unzufriedener die Wähler mit der aktuellen wirtschaftlichen Lage in Honduras und ihren eigenen Lebensbedingungen waren. Ebenso zeigen die Modelle, dass die Wahrscheinlichkeit, den Amtsinhaber zu unterstützen, umso geringer ist, je weniger die Wähler dem Präsidenten und dem Wahlsystem vertrauen. Wir haben auch festgestellt, dass die Wahrscheinlichkeit der Wahlbeteiligung geringer ist, wenn die Wähler kein Vertrauen in die staatlichen Institutionen haben und die Existenz von Korruption wahrnehmen. Darüber hinaus haben wir

festgestellt, dass diejenigen, die zur Wahl gehen, eher politisch und nicht-politisch orientiert wählen, während diejenigen, die sich der Wahl enthalten, eher retrospektiv orientiert wählen. Außerdem haben wir festgestellt, dass der Verantwortlichkeitsindex bei denjenigen, die sich gegen eine Stimmabgabe entscheiden, höher ist, was bedeutet, dass sie eine wichtigere Rolle im politischen Prozess spielen. Darüber hinaus hatten Personen, denen es an Vertrauen in die staatlichen Institutionen mangelt und die das Vorhandensein von Korruption wahrnehmen und sich folglich enthalten, ein höheres politisches Gewicht. Dies bedeutet, dass Nichtwähler die "Macht" haben könnten, die Regierung zu einer effizienteren Politik zu bewegen, wenn sie sich zur Stimmabgabe entschließen. Zusammenfassend lässt sich sagen, dass nicht nur die Stimmabgabe für eine Oppositionspartei, sondern auch die Stimmenthaltung als eine Möglichkeit angesehen werden kann, die schlechte Leistung des Amtsinhabers zu bestrafen und die Unzufriedenheit mit korrupten staatlichen Institutionen zum Ausdruck zu bringen.

8.3. The Role of Abstainers in the Policy Making Process in Developing and Developed Countries: A Comparative Latent Class Approach for Honduras and Germany

Die Stimmabgabe ist der wichtigste Mechanismus, der die Legitimität des Handelns der politischen Akteure in repräsentativen demokratischen Systemen sicherstellt. In diesem Sinne sollten die Regierungen die notwendigen Anreize haben, eine Politik umzusetzen, die den Wohlstand der Gesellschaft erhöht und den Präferenzen der Bürger entspricht. Dennoch führt der Wahlwettbewerb häufig zu einem Scheitern der Politik, da die Rechenschaftspflicht der Regierung gering ist und die Regierung in hohem Maße Einfluss auf die Politik nimmt. Hinzu kommt, dass nicht alle Menschen, die das Recht haben, an einer Wahl teilzunehmen, sich auch dazu entschließen, ihre Stimme abzugeben. Einige Menschen betrachten das Wählen als Bürgerpflicht, während andere der Ansicht sind, dass das Wählen oft unbequem und zeitaufwändig ist und sogar sinnlos zu sein scheint, da die Wahrscheinlichkeit, dass die Stimme einer Person einen Unterschied im Wahlergebnis bewirkt, verschwindend gering ist. Nach Angaben von Solijonov (2016) ist die durchschnittliche Wahlbeteiligung in den letzten Jahrzehnten weltweit deutlich gesunken. In Honduras hat die Wahlenthaltung in den letzten Jahren zugenommen, und einer der Gründe dafür scheint zu sein, dass viele Menschen kein Vertrauen in die politischen Parteien oder Kan-

didaten haben. Außerdem hat das Land eine massive internationale Migration erlebt. Wie der Bundeswahlleiter (2019) berichtet, ist die Wahlbeteiligung in Deutschland mit Ausnahme der Wahlen 2017 ebenfalls zurückgegangen. Offenbar sind Arbeitslose und Menschen, die von ihren alten favorisierten Parteien enttäuscht sind, weniger motiviert, sich zu beteiligen. Es ist auch wichtig zu betonen, dass die Wahlenthaltung in entwickelten Ländern und Entwicklungsländern unterschiedlich hoch ist. In diesem Zusammenhang stellte Stockemer (2015) fest, dass die Wahlbeteiligung der Bürger in Industrieländern höher ist als in Entwicklungsländern. Darüber hinaus argumentierte Solijonov (2016), dass die Menschen in entwickelten Ländern besser informiert sind und sich stärker an politischen Prozessen beteiligen, während sich wirtschaftliche Widrigkeiten negativ auf die politische Beteiligung in den am wenigsten entwickelten Ländern auswirken.

Die Stimmabgabe ist mit einem Nutzen (wenn der Wähler das Ergebnis in seinem Sinne verändert) und mit Kosten (wie Zeit, Geld und Information) für den Wähler verbunden. In diesem Sinne argumentiert Kirchgässner (1992), dass die Befolgung sozialer (moralischer) Regeln, wenn sie vom Eigeninteresse abweichen, mit Kosten verbunden ist, die bei der Wahlentscheidung eher gering sind. Außerdem zeigt Grofman (1995), dass die Korrelation zwischen Wahlbeteiligung und Wahlnähe positiv oder negativ sein kann. Dies hängt von der Art und Weise ab, wie die Wähler ihre Erwartungen in Bezug darauf formulieren, ob ihre Stimme entscheidend sein wird oder nicht. Myerson (1997) stellte jedoch fest, dass die erwartete Wahlbeteiligung nicht hoch sein kann, wenn der Akt der Stimmabgabe für alle Wähler kostenintensiv ist. Im Gegenteil, Blais (2000) kam zu dem Schluss, dass Menschen, die wissen, dass die Wahrscheinlichkeit, dass ihre Stimme entscheidend ist, gering ist, sich rationalerweise der Wahl enthalten sollten. Die meisten Menschen gehen jedoch zur Wahl, und die meisten von ihnen wählen regelmäßig. Viele Autoren haben die Stimmenthaltung bei Wahlen untersucht. Downs (1957) erklärte, dass sich die Bürger der Stimme enthalten, wenn der Parteienunterschied gleich Null ist. Riker and Ordeshook (1968) entwickelte ein Modell, in dem es für diejenigen, die wählen, rational ist, dies zu tun, und für diejenigen, die nicht wählen, ebenso rational ist, dies nicht zu tun. Später konzeptualisierte Riker and Ordeshook (1973) die Wahl des Bürgers als einen zweistufigen Prozess, bei dem der Wähler zunächst einen bevorzugten Kandidaten identifiziert und dann entscheidet, ob er wählen geht oder sich der Wahl enthält. Darüber hinaus führte Adams et al. (2006) die Entfremdung von den Kandidaten und die Indifferenz zwischen den Kandidaten als Beweggründe für die Bürger an, sich der Wahl zu enthalten. Darüber

hinaus schlugen Thurner and Eymann (2000) ein Modell vor, in dem sie die gleichzeitige Wahl zwischen Parteien und die Option der Wahlenthaltung berücksichtigen. Die Gründe für die Wahlenthaltung sind sehr vielfältig. Feddersen and Pesendorfer (1999) analysierte Wähler mit asymmetrischen Informationen und zeigte, dass besser informierte Bürger eher zur Wahl gehen als ihr Gegenpart. Darüber hinaus zeigte Karklins (1986) bei der Untersuchung der Wahlenthaltung bei nicht wettbewerbsorientierten Wahlen, dass die Nichtwahl mit einem hohen Interesse an der Politik korreliert. Was die Bedeutung der Wahlenthaltung aus politikwissenschaftlicher Sicht betrifft, so wies Vilajosana (1999) darauf hin, dass die Wahlenthaltung zur Aufrechterhaltung und Verbesserung des demokratischen Systems führen oder das demokratische System beenden kann. Darüber hinaus erklären einige Demokratietheoretiker wie Barber (2004) und Pateman (1970), dass die Beteiligung für die Demokratie unerlässlich ist, während andere meinen, dass ein hohes Maß an Wahlenthaltung die Legitimität der Demokratie untergräbt (Cavanagh (1981) und Salisbury (1975)). Außerdem erklären Kooreman and Haan (2003), Adachi (2004) und Palfrey and Rosenthal (1983), dass die Mehrheitsgruppe größere Anreize zum Trittbrettfahren hat, während die Mitglieder der Minderheitsgruppe stärker zur Stimmabgabe ermutigt werden. In der Politikwissenschaft wird häufig davon ausgegangen, dass Wahlenthalter aufgrund ihres mangelnden Wissens und Interesses an der Politik für den politischen Entscheidungsprozess nicht von Bedeutung sind und daher ignoriert werden sollten. In diesem Sinne haben Quaille Hill and Leighley (1992) und Leighley and Nagler (1992) den Nachweis erbracht, dass die Wahlbeteiligung bei der Formulierung der Sozialpolitik wichtig ist. Auch Uhlaner (1989) argumentierte, dass Gruppen von Wählern, die politische Interessen teilen, die Kandidaten motivieren, ihre Position im politischen Raum in Richtung der bevorzugten Position der Mitglieder dieser Gruppe zu verschieben. Darüber hinaus geht die Theorie des rationalen Wahlverhaltens (Downs, 1957) davon aus, dass politische Parteien die politische Position wählen, die ihren erwarteten Stimmenanteil maximiert. Darüber hinaus kam Burnham and A James (1987) zu dem Schluss, dass "wer nicht wählt, nicht zählt", und nach Wattenberg (2002) sind "Politiker keine Dummköpfe; sie wissen, wer ihre Kunden sind", weshalb sie sich keine Sorgen um Nichtwähler machen sollten. In diesem Sinne bestand das Ziel dieser Arbeit darin, die Faktoren zu ermitteln, die die Entscheidung der Menschen beeinflussen, entweder zu wählen oder sich der Wahl zu enthalten. Anschließend wollten wir analysieren, wie sich diese Entscheidung auf die Leistung der Regierung in beiden Ländern auswirkt. Genauer gesagt wollten wir die Bedeutung der Stimmenthalter im

politischen Entscheidungsprozess ermitteln und herausfinden, ob es einen Unterschied in der Rolle der Nichtwähler in Industrie- und Entwicklungsländern gibt.

Zu diesem Zweck schätzten wir eine Reihe von probabilistischen Wählermodellen unter Anwendung eines latenten Klassenansatzes und unter Verwendung von Daten aus Honduras und Deutschland. Um die relative Bedeutung der drei Wahlmotive zu bewerten, berechneten wir anschließend für beide Länder die relativen marginalen Effekte jeder Komponente für die amtierende Regierung und die alternative Wahlenthaltung. Um zu beurteilen, ob die Regierungen verantwortungsbewusst handeln, und um das politische Gewicht bestimmter Wählergruppen zu messen, wurden außerdem Indikatoren für die Regierungsleistung entwickelt.

Wir haben festgestellt, dass in beiden Ländern die drei Komponenten der Stimmabgabe wichtige Faktoren für die Entscheidung der Wähler sind, entweder zu wählen oder sich der Stimme zu enthalten, sowie für die Wahl einer politischen Partei. Die Bedeutung der verschiedenen Wahlmotive ist jedoch sehr unterschiedlich. In Honduras wählen diejenigen, die sich der Stimme enthalten, eher politisch und nicht-politisch orientiert als diejenigen, die sich für die amtierende Partei entscheiden, während in Deutschland diejenigen, die sich der Stimme enthalten, eher retrospektiv orientiert wählen. Wie erwartet, waren die Indizes für die Rechenschaftspflicht der Regierung in den Industrieländern höher. Wir haben auch festgestellt, dass diejenigen, die sich der Wahl enthalten, einen deutlich höheren Index für die Rechenschaftspflicht der Regierung haben als diejenigen, die die etablierten Parteien unterstützen. Darüber hinaus werden in Honduras alle Wähler von den Wahlenthaltenden mit einbezogen, während in Deutschland die Nichtwähler von denjenigen einbezogen werden, die sich für die Teilnahme an den Wahlen entscheiden. Wir kommen zu dem Schluss, dass unsere Ergebnisse für die Industrieländer die Literatur stützen, wonach Wahlenthaltende ignoriert werden sollten, da sie nicht auf politische Maßnahmen zu reagieren scheinen, da sie ein geringes politisches Gewicht haben. Im Falle des Entwicklungslandes widersprechen unsere Ergebnisse jedoch der Literatur. Sie zeigten, dass die Nichtwähler in diesem Land die "Macht" zu haben scheinen, die Regierung zu einer effizienteren Politik zu bewegen, wenn sie sich entschließen, ihre Stimme abzugeben, da sie ein höheres politisches Gewicht haben als die Wähler. Wenn Nichtwähler also ein hohes politisches Gewicht haben, ist es aus Sicht der etablierten Parteien eindeutig, dass die Regierungen von einer hohen Wahlenthaltung profitieren.

8.4. How Important are Abstainers in Presidential Elections?: A Comparative Analysis between Africa and Latin America

Um Armut und Unterernährung zu verringern und das Wirtschaftswachstum in einem Land zu steigern, ist die Qualität der Regierungsführung wichtig, da sie die Umsetzung effizienter politischer Maßnahmen gewährleisten kann. Um dies zu erreichen, sollte der Wahlwettbewerb die Interessen der gesamten Gesellschaft widerspiegeln und zur Kontrolle der Regierung dienen. In der Realität führt der Wahlwettbewerb jedoch häufig zum Scheitern der Politik. Selbst in Ländern mit gut funktionierenden Demokratien entscheiden sich nicht alle Menschen, die das Recht haben, an einer Präsidentschaftswahl teilzunehmen, für die Stimmabgabe. Einige Menschen betrachten das Wählen als Bürgerpflicht, während andere der Meinung sind, dass das Wählen oft unbequem und zeitaufwändig ist und sogar sinnlos erscheinen kann. Nach Angaben von Solijonov (2016) ist die durchschnittliche Wahlbeteiligung in den letzten Jahrzehnten weltweit deutlich gesunken. Diese Aussagen decken sich mit der Situation in Honduras und Senegal.

Obwohl wichtige theoretische Studien über die Auswirkungen des Wählerverhaltens auf die Leistung der Regierung veröffentlicht und einige empirische Untersuchungen zu diesen Auswirkungen durchgeführt wurden, ist die Einbeziehung der Aspekte der Wahlenthaltung/Beteiligung in Studien zum Wählerverhalten nicht sehr verbreitet. Downs (1957) erklärte, dass die Bürger die Partei wählen, von der sie glauben, dass sie ihnen einen höheren Nutzen bringt. Wenn der Unterschied zwischen den Parteien jedoch gleich Null ist, werden sie sich der Wahl enthalten. Später nahmen Riker and Ordeshook (1968, 1973) eine zusätzliche Komponente in die Nutzenfunktion auf, die positive Auswirkungen auf den erwarteten Nutzen der Stimmabgabe enthält. Daraus schlossen sie, dass "das Verhalten der meisten Menschen durch eine Theorie der rationalen Entscheidungsfindung beschrieben werden kann". Sie erklärten auch, dass Wähler zunächst einen bevorzugten Kandidaten auswählen und dann entscheiden, ob sie wählen oder nicht. Darüber hinaus haben Thurner and Eymann (2000) und Plane and Gershtenson (2004) mit Hilfe von räumlichen Modellen der Stimmabgabe auch Indifferenz und Entfremdung gegenüber dem Kandidaten oder der Partei als Gründe untersucht, die die individuelle Wahrscheinlichkeit der Stimmabgabe beeinflussen. Adams et al. (2006) haben auch die Entfremdung von den Kandidaten und die Indifferenz zwischen den Kandidaten als Gründe für den Verzicht der Bürger auf die Stimmabgabe berücksichtigt. Sie kamen zu dem Schluss, dass diese Entscheidung weitge-

hend politikbasiert ist, da sie von der Bewertung der Politik der Kandidaten beeinflusst wird. Aus politikwissenschaftlicher Sicht gilt die Stimmabgabe als der wichtigste Akt der Beteiligung in einer Demokratie. Lijphart (1997) argumentiert, dass eine niedrige Wahlbeteiligung ein ernsthaftes demokratisches Problem darstellt, da sie zu Ungleichheit führt, da Politiker den Interessen derjenigen, die sich zur Stimmabgabe entschließen, mehr Bedeutung beimessen. In ähnlicher Weise zeigte Hooghe and Pelleriaux (1998), dass die Abschaffung der Wahlpflicht in Belgien zu mehr Ungleichheit führen würde. Laut Stockemer and Blais (2019) haben Wahlenthalter bei nationalen und europäischen Wahlen ein geringes Maß an Wissen und Interesse an Politik sowie ein geringes Gefühl der Bürgerpflicht. Pacek and Radcliff (1995) argumentierte, dass die Wahlbeteiligung tiefgreifende politische Konsequenzen haben kann. Darüber hinaus erklärte Hicks and Swank (1992), dass die Wahlbeteiligung wichtig für den Anteil des nationalen Einkommens ist, der für Sozialhilfeprogramme ausgegeben wird. Schließlich geht Downs (1957) davon aus, dass politische Parteien versuchen, die politische Position zu wählen, die ihren erwarteten Stimmenanteil maximiert. In diesem Zusammenhang argumentieren Burnham and A James (1987) und Wattenberg (2002), dass sich Politiker keine Sorgen um Nichtwähler machen sollten.

Ziel dieser Studie ist es, die Bedeutung der Nichtwähler für den politischen Entscheidungsprozess in Afrika und Lateinamerika zu bewerten. Genauer gesagt wollen wir untersuchen, ob Nichtwähler die Regierungen motivieren könnten, effiziente politische Maßnahmen zu konzipieren und umzusetzen. Zu diesem Zweck schätzten wir verschachtelte multinomiale Logit-Modelle, die die Alternative Stimmenthaltung in die Auswahl einschlossen. Außerdem entwickelten wir Indizes für die Regierungsleistung auf der Grundlage der berechneten relativen marginalen Effekte. Anschließend wurden Daten aus Honduras und Senegal für die empirische Anwendung verwendet.

Unsere Ergebnisse deuten darauf hin, dass in beiden Ländern politische Themen sowie Variablen im Zusammenhang mit der retrospektiven und nicht-politischen Stimmabgabe bei der Wahlentscheidung von Bedeutung sind. Wir haben auch festgestellt, dass weniger informierte Wähler weniger motiviert sind, sich an Wahlen zu beteiligen. Die Ergebnisse zeigen auch, dass Nichtwähler dazu neigen, eher politisch und nicht-politisch orientiert zu wählen als diejenigen, die für die etablierten Parteien gestimmt haben. Trotz der Tatsache, dass die Verantwortlichkeitsindizes in beiden Ländern recht niedrig sind, halten diejenigen, die den Amtsinhaber nicht unterstützen, die Regierung für rechenschaftspflichtiger.

Wenn die Regierungen die Ziele, zu denen sie sich verpflichtet haben, nicht erreichen, ist es daher wahrscheinlicher, dass diese Wähler sich der Stimme enthalten oder eine Oppositionspartei wählen, um ihre schlechte Leistung zu bestrafen. Darüber hinaus erfassen die Wahlenthalter und Nichtregierungswähler diejenigen, die sich für die Unterstützung der etablierten Parteien entschieden haben. Dies bedeutet, dass sie ein größeres politisches Gewicht haben und daher Druck auf die Regierungen ausüben könnten, damit diese bessere politische Maßnahmen wählen und umsetzen, wenn sie sich zur Wahl entscheiden. Mit anderen Worten: Diejenigen, die sich der Wahl enthalten, können durchaus die Macht entwickeln, eine bessere Regierungsleistung zu erzielen, da sie eindeutig auf die Politik reagieren. Wir können also nicht länger behaupten, dass die Menschen sich nur deshalb zur Wahlenthaltung entschließen, weil der Akt der Stimmabgabe unbequem und zeitaufwändig ist, oder dass sie sich zur Stimmabgabe entschließen, weil es lediglich eine staatsbürgerliche Pflicht ist. In diesen beiden Entwicklungsländern gibt es andere Faktoren, die die Wähler bei ihrer Entscheidung für oder gegen eine Wahl berücksichtigen, wie z. B. ihre Zufriedenheit mit der Leistung des Präsidenten. Außerdem sind in beiden Ländern die Wahlenthalter wichtig für den politischen Prozess und sollten daher berücksichtigt werden. Mit anderen Worten, im Gegensatz zu den vielen theoretischen Arbeiten, die in der Politikwissenschaft veröffentlicht wurden und die fehlende Bedeutung der Wahlenthalter erklären, zeigen unsere Ergebnisse, dass sie tatsächlich Macht entwickeln können, um eine höhere Leistung der Regierung zu fördern.

8.5. The Importance of Education and Information in the Political Process: A Comparative Analysis for 3 American Countries

Die Demokratie ist ein politisches System, das den Menschen das Recht gibt, ihre Staatsoberhäupter zu wählen und zu kontrollieren. Obwohl sie nicht perfekt ist, wird sie oft als das beste politische System angesehen, da sie eine gerechte und bequeme Regierungsform ist, die es der Bevölkerung ermöglicht, in Harmonie zu leben. Darüber hinaus sind der Zugang zu Bildung und Information ebenfalls wichtig, um eine gerechte Gesellschaft zu schaffen. Insbesondere gut ausgebildete und gut informierte Wähler neigen dazu, sich eher an der Politik zu orientieren, was wiederum zu einer besseren Leistung der Regierung führen sollte. In diesem Sinne argumentiert Hochschild (2010), dass eine gute Demokratie informierte und gut ausgebildete Wähler voraussetzt. Darüber hinaus erklären Carmines

and Stimson (1980), dass Themenwähler besser gebildet, besser informiert und aktiver in der Politik sind. Des Weiteren weist Schachter (1995) darauf hin, dass eine angemessene Bildung der Bürger und ein Informationsaustausch erforderlich sind, um eine effiziente und reaktionsfähige Regierung zu erreichen. Nach Grossman and Helpman (1996) stützen die Wähler ihre Wahlentscheidungen sowohl auf politikorientierte als auch auf nicht politikorientierte Faktoren, je nach ihrem Informationsstand über die Politik. Darüber hinaus erklärt Bardhan and Mookherjee (2000), dass informierte Wähler sich der Politik bewusst sind und ihre Wahlentscheidung auf der Grundlage des von ihnen erwarteten Nutzens treffen, während uninformierte Wähler durch politische Kampagnen beeinflusst werden, die zu politischen Voreingenommenheit führen (Government Capture). In letzter Zeit hat Pande (2011) erklärt, dass begrenzte Informationen eine Erklärung für die geringe Qualität der Politiker in Demokratien mit niedrigem Einkommen sind. Außerdem stellte Gavazza et al. (2018) fest, dass Informationen eine wichtige Rolle bei der Wahlbeteiligung, der Regierungspolitik und der Größe der Regierung spielen.

In der politischen Theorie kann verantwortungsvolles Handeln der Regierung nur stattfinden, wenn die Wähler politisch und rückblickend orientiert entscheiden. Akarca and Tansel (2007) vermuten, dass die Wähler die wirtschaftliche Leistung der amtierenden Partei berücksichtigen und, wenn diese schlecht ist, die Opposition begünstigen. Lewis-Beck and Nadeau (2000) und Fraile and Lewis-Beck (2013) stellten fest, dass wirtschaftliche Fragen eine wichtige Rolle bei der Wahlentscheidung spielen. Auch Shabad and Slomczynski (2011) argumentieren, dass die Wähler die wirtschaftliche und politische Leistung berücksichtigen, wenn sie entscheiden, ob sie den Amtsinhaber belohnen oder bestrafen wollen. Darüber hinaus haben Enkelmann (2013) gezeigt, dass die Wähler die nationale und persönliche wirtschaftliche Situation bei der Bewertung der Regierung berücksichtigen. Die Ergebnisse der Studie von Soederlund (2008) deuten darauf hin, dass die Wähler bei ihrer Wahlentscheidung häufig die Gesamtkompetenz von Politikern und Parteien bewerten. Einige Forscher argumentieren, dass Informationen für die rückwirkende Stimmabgabe in Demokratien wichtig sind. Duch (2001) schlagen vor, dass die wirtschaftliche Wahlbeteiligung höher ist, wenn der Informationsstand über die Regierung steigt. Stiers (2019) fand heraus, dass es einen größeren Unterschied zwischen Wählern mit unterschiedlichem politischen Informationsstand gibt. Andere Autoren hingegen erklären, dass auch weniger gut informierte Personen leistungsorientiert wählen. So argumentieren beispielsweise Fortunato and Stevenson (2013), dass unkundige Wähler in

hohem Maße wirtschaftlich orientierte Stimmen abgeben. Darüber hinaus weisen Collier et al. (1987) darauf hin, dass die “retrospektive Stimmabgabe tatsächlich die Informationskosten reduziert”. Die ökonomische Stimmabgabe wurde sowohl im Kontext von Industrie- als auch von Entwicklungsländern untersucht. Zunächst kommen Fiorina (1978) zu dem Schluss, dass die Bürger bei den nationalen Wahlen in den USA für oder gegen die Partei des amtierenden Präsidenten stimmen, und zwar auf der Grundlage ihrer persönlichen wirtschaftlichen Lage. Dann untersuchten Happy (1989) die retrospektive wirtschaftliche Wahlentscheidung in Kanada und zeigten, dass Einkommensstabilität und Einkommenswachstum einen Einfluss auf die Wahl des Amtsinhabers haben. Später analysierte Johnston and Pattie (2001) die retrospektive Stimmabgabe in Großbritannien und stellte fest, dass eine negative Bewertung der Regierungspolitik die Wahrscheinlichkeit verringert, dass ein Wähler für die amtierende Partei stimmt. Darüber hinaus untersuchte Lewis-Beck (1986) Umfragedaten aus Großbritannien, Frankreich, Deutschland und Italien und kam zu dem Schluss, dass das wirtschaftliche Wahlverhalten eindeutig und konsistent ist. In Bezug auf die Entwicklungsländer zeigt Oganessian (2014), dass die Wähler in diesen Ländern bei ihrer Wahlentscheidung durchaus die Wirtschaft berücksichtigen. Singer and Carlin (2013) analysierte 18 lateinamerikanische Länder und stellte fest, dass die Wähler im Allgemeinen die nationale Wirtschaft mehr berücksichtigen als die persönlichen Finanzen, außer in den am wenigsten entwickelten Ländern. Lewis-Beck and Ratto (2013) fand auch heraus, dass die Wähler in Lateinamerika die wirtschaftliche Leistung der Regierungen belohnen oder bestrafen.

Ziel dieser Forschungsstudie ist es, den Einfluss des Bildungsniveaus sowie des Informationsstandes der Wählerschaft auf das Wählerverhalten zu analysieren. Genauer gesagt sind wir daran interessiert festzustellen, ob besser gebildete und gut informierte Wähler eher politik- und retrospektiv orientiert wählen, was wiederum zu einer besseren Regierungsleistung führt. Außerdem wollen wir Unterschiede im Wahlverhalten zwischen Industrie- und Entwicklungsländern feststellen. Zu diesem Zweck haben wir probabilistische Wählermodelle und Indizes zur Regierungsleistung für Honduras (Entwicklungsland mit niedrigem Bildungsniveau), Chile (Entwicklungsland mit hohem Bildungsniveau) und die USA (entwickeltes Land mit hohem Bildungsniveau) geschätzt. Für unsere vergleichende empirische Analyse haben wir uns entschieden, Daten aus der AmericasBarometer-Umfragerunde 2018/19 zu verwenden.

Die geschätzten Modelle ergaben, dass alle drei Komponenten des Wahlverhaltens sig-

nifikante Faktoren sind, die das Wahlverhalten in Honduras, Chile und den USA beeinflussen. Ihre Bedeutung variiert jedoch erheblich, wobei das nicht-politische Motiv in allen Ländern am wichtigsten ist. Wie erwartet, sind jedoch das retrospektive und das politische Motiv in den USA wichtiger. Im Falle von Chile und Honduras ist die politische Komponente höher, während in Honduras die retrospektive Komponente höher ist. Dies zeigt, dass die Wähler nicht unbedingt gut ausgebildet oder informiert sein müssen, um ihre Wahlentscheidung eher rückblickend zu treffen. Wir haben auch festgestellt, dass die informierten und gebildeten Wähler im Allgemeinen eher politikorientiert wählen. Was die retrospektive Wahlentscheidung betrifft, so ist sie in beiden Entwicklungsländern bei ungebildeten und uninformierten Menschen höher, während sie in den USA bei gebildeten und informierten Wählern höher ist. Folglich ist der Index der Rechenschaftspflicht der Regierung in den USA am höchsten, während er in Honduras am niedrigsten ist. Diese geringe Rechenschaftspflicht der honduranischen Regierung gegenüber ihren Wählern lässt darauf schließen, dass die Stimmabgabe im politischen Prozess keine sehr wichtige Rolle spielt. In den Industrieländern hingegen deutet der höhere Rechenschaftsindex darauf hin, dass die Regierung der USA ein größeres Interesse daran hat, die Wähler in den politischen Prozess einzubeziehen, anstatt der Lobbyarbeit und den Eigeninteressen der Regierung größere Bedeutung beizumessen. Außerdem haben wir festgestellt, dass in Chile und in den USA informierte und gebildete Wähler einen höheren Verantwortlichkeitsindex haben als ihre Gegenparts. Dennoch ist es überraschend, dass im Fall von Honduras die ungebildete und uninformierte Bevölkerung die Regierung stärker zur Rechenschaft zieht. Was die Indizes für die Vereinnahmung durch die Regierung betrifft, so haben diejenigen, die über ein höheres Bildungsniveau verfügen, besser informiert sind, ein größeres Interesse an der Politik und ein besseres Verständnis für politische Themen haben, im Allgemeinen ein größeres politisches Gewicht. Dies bedeutet, dass Regierungen, die eine Wiederwahl anstreben, größere Anreize haben, politische Maßnahmen zu ergreifen, die diesen sozialen Gruppen auf Kosten der anderen Gruppen zugute kommen. Unsere Ergebnisse legen nahe, dass sowohl in den Industrie- als auch in den Entwicklungsländern besser ausgebildete und gut informierte Wähler eine stärker politikorientierte Wahl treffen, was wiederum die Rechenschaftspflicht der Regierung verbessert. Nichtsdestotrotz kann die rückwirkende Stimmabgabe sowohl von den gebildeten und informierten Wählern als auch von den ungebildeten und uninformierten Wählern ausgehen. Dies wirft die Frage auf: "Ist die retrospektive Wahl gut oder schlecht?". Wenn die Wähler retrospektiv wählen, kann

die Regierungspartei eine populäre Politik entwickeln und umsetzen, die ihre Wahlchancen erhöht, aber das ist nicht unbedingt die effizientere Politik, die den spezifischen Bedürfnissen des Landes besser entspricht. Auch der Zyklus der Politik muss berücksichtigt werden, d.h. einige effiziente oder gute politische Maßnahmen bringen nur langfristig Ergebnisse und nicht vor der nächsten Wahl. Dies bedeutet, dass Regierungsparteien, die sich um eine Wiederwahl bemühen, einen größeren Anreiz haben könnten, weniger effiziente politische Maßnahmen umzusetzen, die in naher Zukunft und vor den nächsten Wahlen Ergebnisse liefern.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uninformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economyfirst evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáil general election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nyland, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinary Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters’ perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

A. Methodology

A.1. Voter Behavior: Probabilistic Voter Model

A.1.1. Rational Choice Approach and Discrete Choice Model

In the rational choice theory, each person makes its decision individually and chooses the alternative he prefers or gives him the highest utility. In political science, it is assumed that voters gain utility from the policies implemented by a candidate when it is elected. According to Downs (1957), voters will choose the party or candidate whose provide them with the highest expected utility. Likewise, political parties will choose the policy position or platform that maximizes their expected vote share. Hence, voters, as well as political parties act rational when they make their decision.

The probabilistic voter model is, nowadays, the workhorse model applied in voter studies. These models are estimated with Discrete Choice models. They explain and predict choices between two or more alternatives. In political science research, they are commonly used to analyze how voters choose their preferred candidate or political party in an election. More specifically, these models examine: who choose? (the voters), what do they choose? (which alternative?) and how do they choose? (based on what aspects or characteristics?). Therefore, in the assessment of voter behavior, discrete choice models are very useful, since they not only predict the results, but also explain the way these results are achieved. Additionally, in electoral processes, the choice set meet all three requirements for a discrete choice model:

- if a person decides to vote, he will find that all parties/candidates are present on the ballot (collectively exhaustive),
- each voter is allowed to choose only one party or candidate, unless he decides to abstain (mutually exclusive) and
- there is only a finite number of parties/candidates and abstention (finite number of alternatives).

In order to derive the Discrete Choice model, a Random Utility Maximization (RUM) model is used. Here, if the voter i acts rationally, he chooses k among K alternatives only if it provides him the highest utility U_{ik} . In other words, the greater the utility from an alternative, the more likely it is chosen by the voter.

$$P_{iA}(A, B) = Prob (U_{iA} > U_{iB}) \quad (\text{A.1})$$

However, in the empirical research, it is not possible to observe and control all the factors of the voting decision process. In this sense, we differentiate between the deterministic and the probabilistic voter model. In the deterministic voter model, the probability that voter i chooses party A in a two-party system is calculated as follows:

$$P_{iA}(A, B) = 1 \text{ if } V_{iA} > V_{iB} \quad (\text{A.2})$$

$$P_{iA}(A, B) = 0,5 \text{ if } V_{iA} = V_{iB} \quad (\text{A.3})$$

$$P_{iA}(A, B) = 0 \text{ if } V_{iA} < V_{iB} \quad (\text{A.4})$$

where V_{iA} and V_{iB} are the utilities that voter i receives from parties A and B respectively. In other words, the voting decision depends on the party differential $V_{iA} - V_{iB}$. On the other hand, the probabilistic voter model allows the inclusion, in the utility function, of an individual-specific stochastic component μ_{ik} that contains everything that is not known by the researcher a priori:

$$P_{iA}(A, B) = Prob(U_{iA} \geq U_{iB}) \text{ where } U_{ik} = V_{ik} + \mu_{ik}, k = A, B \quad (\text{A.5})$$

A.1.2. Logit Model

Since μ_{ik} is unknown by the researcher, it is treated as random. In this sense, we assume that it is independently, identically extreme value distributed (iid) and follows the Gumbel distribution (extreme value distribution Type I), i.e. μ_{iA} is not related to μ_{iB} . Due to the fact that many political parties and also the alternative abstention were considered, this model had to be extended to a multi-party system. In this regard, we considered the logit model according to McFadden (1974, 1982) as a powerful tool in our voter behavior analysis. This approach allows to calculate the probability of choosing an alternative k from a set of alternatives K and can be represented as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \quad (\text{A.6})$$

Depending on the kind of variables under study and the parameters that are included,

there are different logit models. On the one hand, the multinomial logit model consists of individual specific variables (characteristics of voters), such as, age, gender and education, with alternative specific coefficients. They show the importance of an individual characteristic in choosing a specific alternative. On the other hand, the conditional logit model includes alternative specific variables (characteristics of parties), like policy issues, with generic coefficients. These coefficients are equal over all alternatives, because they show the importance of the variable for voting as a whole. Since our study includes both kind of variables, we estimated a mixture of multinomial logit and conditional logit model.

For the analysis, the datasets are transformed into long formats. This implies that each voter represents K observations, depending on the number of alternatives. Additionally, the dependent variable *Choice* is equal to 1 if the alternative is chosen and 0 otherwise. Furthermore, individual specific variables are different for every voter/party combination, whereas alternative specific variables are different for each alternative. A simple form of the model is as follows:

$$P_{ik}(K) = \frac{e^{V_{ik}}}{\sum_{k=1}^K e^{V_{ik}}} \text{ where } V_{ik} = \alpha_k + \beta x_{ik} + \delta_k r_i \quad (\text{A.7})$$

where α_k is an alternative specific constant, x_{ik} an alternative specific variable with a generic coefficient β , and r_i an individual specific variable with an alternative specific coefficient δ_k . The generic coefficients are constant for all alternatives. Conversely, the alternative specific coefficients are estimated with the reference alternative (the incumbent) set to zero and the remaining coefficients are interpreted with respect to this alternative.

A.1.3. Voting Components

According to the voter theory, the utility V_{ik} that a voter i associates with the alternative k includes three different components or voting motives: policy oriented (V_{ik}^P), retrospective oriented (V_{ik}^R) and non-policy oriented (V_{ik}^{NP}). Now the voter's utility function looks as follows:

$$V_{ik} = \beta_k V_{ik}^P + \delta_k V_{ik}^R + \alpha_k V_{ik}^{NP} \quad (\text{A.8})$$

where β , δ and α are the relative weights of the voting components.

If voters are well informed and are interest in politics, they will decide based on the policy

platforms suggested by the candidates. In this sense, according Thurner and Eymann (2000), voters may also tend to abstain, if the distance to the closest party/candidate exceeds a certain threshold. Hence, following the spatial voting model of Davis et al. (1970) and Enelow and Hinich (1984), the policy oriented voter's utility function can be calculated as the weighted distance between the voter's preferred position x_{id} on a specific issue d and the perceived position of the party/candidate y_{ikd} on the same issue d :

$$V_{ik}^P = -\sum_d^D \beta_d (y_{ikd} - x_{id})^2 \text{ where } D_{ikd} = (y_{ikd} - x_{id}) \quad (\text{A.9})$$

The coefficient β must always be negative, because the greater the distance between the voter's position and the party/candidate's perceived position, the lower is the utility and, consequently, the lower is the probability that the voter chooses this party/candidate. In the case of the alternative abstention, the minimal negative distance was used (distance from the voter's ideal position to the nearest party). This agrees with the paradox of voting which states that the costs of voting normally exceed the expected benefits. Therefore, the greater the distance, the greater is the utility and the probability of abstaining.

As regards the retrospective voting motive, Fiorina (1981) implies that voters can evaluate the past performance of the incumbent based on measures of well-being realized during the presidential term. In this regards, to make their decision, voters use an observable welfare indicator Z_{ir} which is determined by implemented governmental policies (γ_G).

$$V_{ik}^R = \sum_r^R \delta_{kr} Z_{ir}(\gamma_G) \quad (\text{A.10})$$

Note that in the estimation of our model, we assumed that the assessment of the economic performance of the government also has an impact on the voters' evaluation of the opposition parties, as well as on the decision of refraining from voting.

Not all voters are well informed and aware of policies, especially in developing countries. Therefore, voters might also apply non-policy indicators to estimate their utility. For example, their socio-demographic characteristics x_{ij} , as well as their level of trust on the incumbent y_{ig} and their approval of the work of the president z_{ig} as a measurement of their perception of the performance of the government. Also, party identification PI_i ¹ works as an intensifier in the favoritism towards a candidate from the preferred political party. The latter, was included by Erikson and Romero (1990), Adams (2001) and Adams

¹The party loyalty variable can also be included as an attribute, in which case it would be αPI_{ik}

et al. (2005) in the voter's utility function. Additionally, the specific characteristics of the parties/candidates w_i , such as, appearance and charisma may also be relevant (Schofield, 2007). Furthermore, voters are frequently swayed by the campaign spending C_k or financial resources provided by international donor organizations like development aid. These are often granted on the condition that certain policies are implemented (Dollar and Easterly, 1999).

$$V_{ik}^{NP} = \sum_j^J \alpha_{kj} x_{ij} + \alpha_k y_{ig} + \alpha_k z_{ig} + \alpha_k P I_i + \alpha_k w_i + \sum_k^K \alpha_k C_k \quad (\text{A.11})$$

A.1.4. Latent Class Model

We also analysed the impact of voter behavior on government performance, more specifically on government accountability and capture, and heterogeneity is a necessary condition for the existence of capture. However, the logit model already described is not optimal for this purpose, because it assumes that all voters act in a homogeneous way. Therefore, an approach that allowed the inclusion of heterogeneity was required. The Latent Class Analysis is a measurement model in which individuals can be classified into groups or latent classes, based on their personal characteristics. For this reason, the logit model was extended to a Latent Class Model (LCM). So now the probability that voter i chooses alternative k is class-specific (c):

$$P_{ikc} = \frac{e^{V_{ikc}}}{\sum_{k=1}^K e^{V_{ikc}}} \text{ where } V_{ikc} = \beta_{kc} V_{ikc}^P + \delta_{kc} V_{ikc}^R + \alpha_{kc} V_{ikc}^{NP} \quad (\text{A.12})$$

A vector of socio-demographic characteristics was defined to determine the class membership. In this dissertation, these individual characteristics of the voters are referred as covariates. Then, an iterative process was used to determine class-specific utility functions and the probability of class membership. In the LCM the voter has an additional utility v_{ic} if he belongs to a group because of his socio-demographic characteristics x_i and therefore chooses differently from another group:

$$v_{ic} = \alpha_c + \sum b_c x_i \quad (\text{A.13})$$

Based on this utility v_{ic} , a probability p_{ic} that an individual i belongs to a class c is calculated:

$$p_{ic} = \frac{e^{v_{ic}}}{\sum_{c=1}^C e^{v_{ic}}} \quad (\text{A.14})$$

To decide the number of classes, an information criteria had to be used. The lower the value of the later, the better is the fit of the model. We followed De-Graft Acquah (2010) and Nylund et al. (2007), who suggest that the Bayesian Information Criterion (BIC) is a better criterion in determining the number of classes, since it appears to be consistent when using a relatively large sample size, like the ones used in this research study.

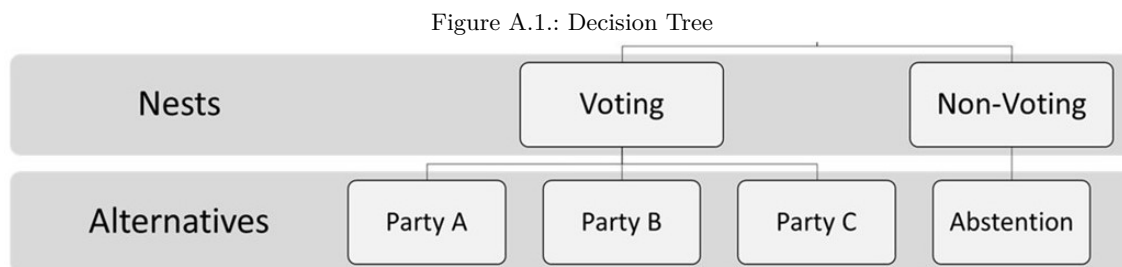
Additionally to the model for classes, that estimates the class membership, the LCM also includes the model for choices, that determines which alternative is chosen. The latter, contains two kinds of variables, attributes and predictors. The attributes are the alternative specific variables with generic coefficients and the predictors are the individual specific variables with alternative specific coefficients.

Then, in order to calculate the probability of the classes, one has to weight the probability that voter i chooses party k given that he belongs to class c (P_{ikc}) with the probability that voter i actually belongs to class c (p_{ic}):

$$\bar{P}_{ik} = \sum_c^C P_{ikc} * p_{ic} \quad (\text{A.15})$$

A.1.5. Nested Multinomial Logit Model

We were interested in analyzing how people choose a certain party/candidate, as well as how they decide to vote or abstain. To this end, we studied the voting decision as a multistage decision problem. In the first stage, the voter decided to either participate in the electoral process or not. Then, in the second stage, he chose its preferred alternative. In other words, if a person decided to vote, he would choose a party/candidate, whereas if he decided not to vote he would abstain. This multistage process is represented as a decision tree in figure A.1.



Source: own illustration

For the estimations and following the approach of Thurner and Eymann (2000) we proposed a model that simultaneously combines the choice among several political parties and the alternative abstention. To this end, we combined the probabilistic voter model of party/candidate choice with the participation/abstention choice in a single nested multinomial logit model based on Croissant (2012) and Greene (2008). In this sense, we created two nests: the “Voting” nest when there was an intended vote choice for a party/candidate and the “Non-Voting” nest when no support was shown for any party/candidate, but instead the alternative abstention was preferred. The developed model is as follows:

$$P_{ik}(K) = P_{ik|m}P_m \quad (\text{A.16})$$

with

$$P_{ik|m} = \frac{e^{V_{ik}}}{\sum_{k \in m} e^{V_{ik}}} \text{ where } V_{ik} = V_{ik}^P + V_{ik}^R + V_{ik}^{NP} \quad (\text{A.17})$$

and

$$P_m = \frac{\left(\sum_{k \in m} e^{V_{ik}} \right)^{\lambda_m}}{\sum_l \left(\sum_{j \in l} e^{V_{ij}} \right)^{\lambda_l}} \quad (\text{A.18})$$

In this approach, the probability that voter i chooses alternative k from a set of alternatives K (equation A.16) is calculated by multiplying the conditional probability of choosing alternative k if the nest m is chosen (equation A.17), times the marginal probability of choosing the nest m (equation A.18). Moreover, the conditional probability $P_{ik|m}$ is the exponential expected utility of voter i from alternative k divided by the sum of

the exponential expected utilities of all the alternatives within the nest m . Furthermore, the marginal probability P_m is the sum of the exponential expected utilities of all the alternatives within the nest m to the power of λ_m divided by the sum of the exponential expected utilities of all the alternatives for all the nests. In our model, λ_m is the elasticity of nest m and $1 - \lambda_m$ is the correlation within the nest. Therefore, for this model to be compatible with the RUM, all the nest elasticities have to be in the interval from 0 to 1.

A.2. Government Performance Indicators

Political parties choose their policy platforms in order to maximize their probability of winning the elections. Nevertheless, the implementation of efficient policies by the government can only take place if voters choose politically and retrospectively oriented. Therefore, in order to evaluate government performance, we derived the indicators for capture and accountability.

A.2.1. Marginal Effects

Since the probability P_{ik} is logistically distributed, the algebraic signs of the coefficients indicate the direction of the impact, but the absolute values cannot be interpreted. Therefore, we first calculated marginal effects (ME), which show how sensitive are voters to changes in the policy, retrospective and non-policy components.

Latent Class Model

In the case of the LCM, ME can be calculated only for the variables included in the model for choices, this means that the covariates have to be excluded as there are used to estimate the class membership.

$$ME_{ikc}^P = \frac{\partial P_{ikc}}{\partial D_{ikd}} = |\beta_{dc} P_{ikc} (1 - P_{ikc})| \quad (\text{A.19})$$

$$ME_{ik}^P = \sum_c^C ME_{ikc}^P * p_{ic} \quad (\text{A.20})$$

$$ME_{ikc}^R = \frac{\partial P_{ikc}}{\partial Z_{ir}(\gamma_G)} = \left| P_{ikc}(\delta_{kc} - \sum_k^K \delta_{kc} P_{ikc}) \right| \quad (\text{A.21})$$

$$ME_{ik}^R = \sum_c^C ME_{ikc}^R * p_{ic} \quad (\text{A.22})$$

- For non-policy alternative specific variables with generic coefficients (Attributes):

$$ME_{ikc}^{NP} = \frac{\partial P_{ikc}}{\partial P_{I_{ik}}} = |\alpha_c P_{ikc}(1 - P_{ikc})| \quad (\text{A.23})$$

$$ME_{ik}^{NP} = \sum_c^C ME_{ikc}^{NP} * p_{ic} \quad (\text{A.24})$$

- For non-policy individual specific variables with alternative specific coefficients (Predictors):

$$ME_{ikc}^{NP} = \frac{\partial P_{ikc}}{\partial P_{I_i}} = \left| P_{ikc}(\alpha_{kc} - \sum_k^K \alpha_{kc} P_{ikc}) \right| \quad (\text{A.25})$$

$$ME_{ik}^{NP} = \sum_c^C ME_{ikc}^{NP} * p_{ic} \quad (\text{A.26})$$

In the case of Germany, the incumbent government is a coalition composed of the Christian Democratic Union/Christian Social Union (CDU/CSU) and the Social Democratic Party (SPD). Therefore, we first calculated the *MEs* for each party. Then, we estimated a weighted average, based on the number of votes each alternative obtained.

Nested Multinomial Logit Model

- For alternative specific variables with generic coefficients:

$$ME_{ik}^P = \left| \frac{\partial P_{ik}}{\partial D_{ikd}} = P_{ik}(1 - P_{ik}) \beta_d \left[\frac{(1 - P_{ik|m})}{(1 - P_{ik})} + \lambda_m \frac{(P_{ik|m} - P_{ik})}{(1 - P_{ik})} \right] \right| \quad (\text{A.27})$$

- For individual specific variables with alternative specific coefficients:

$$ME_{ik}^{NP} = \left| \frac{\partial P_{ik}}{\partial x_{il}} = P_{ik} \left(\alpha_k - \sum_j \alpha_j P_{ij} \right) \left[\frac{(P_m \alpha_k - \sum_j \alpha_j P_{ij})}{P_m (\alpha_k - \sum_j \alpha_j P_{ij})} + \lambda_m \frac{[1 - P_m] (\sum_j \alpha_j P_{ij})}{P_m (\alpha_k - \sum_j \alpha_j P_{ij})} \right] \right| \quad (\text{A.28})$$

These ME point out to which extent changes the probability that voter i chooses alternative k when there is a 1 unit change in the independent variables. In this case, it makes sense to look at the absolute value, since we wanted to analyze the strength rather than the direction of the impact.

A.2.2. Relative Marginal Effects

Further, to assess the relative importance of the three voting motives, we calculated the relative marginal effects (RI) for each voter and alternative:

$$RI_{ik}^P = \frac{ME_{ik}^P}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (\text{A.29})$$

$$RI_{ik}^R = \frac{ME_{ik}^R}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (\text{A.30})$$

$$RI_{ik}^{NP} = \frac{ME_{ik}^{NP}}{ME_{ik}^P + ME_{ik}^R + ME_{ik}^{NP}} \quad (\text{A.31})$$

A.2.3. Government Accountability

In a country, there is low accountability, if the government has a lack of incentive to implement efficient policies that would increase the welfare of the society. In this regard, the implementation of inefficient policies is due to the fact that voters choose more non-policy oriented, instead of voting more policy and retrospectively oriented. Then the function that elections should serve to control the government is not fulfilled. Since, responsible actions by the government can only take place if the electorate votes policy and retrospectively oriented, the following government accountability index (GA) was developed:

$$GA = \frac{RI_g^P + RI_g^R}{RI_g^P + RI_g^R + RI_g^{NP}} \quad (\text{A.32})$$

where the policy and retrospective RI_g can be added in order to compare policy vs non-policy voting and the sum over all voters of the RI_g components is first calculated as:

$$RI_g^P = \sum_{i=1}^n RI_{ig}^P \quad (\text{A.33})$$

$$RI_g^R = \sum_{i=1}^n RI_{ig}^R \quad (\text{A.34})$$

$$RI_g^{NP} = \sum_{i=1}^n RI_{ig}^{NP} \quad (\text{A.35})$$

where g refers to the party in the government.

A.2.4. Government Capture

There is government capture when more consideration is given to the political interests of a minority group at the expense of the majority, usually the poor and uninformed voters. A large capture index can be expected in a country if the elections do not adequately fulfill their function of representing the interests of the whole society. This implies that a small group of voters has comparatively greater insights on political events. In this sense, we assume that the more policy oriented a person chooses, the more importance he has for political parties. Therefore, to look at the extent to which a group is more important to politicians than the other and based on the ME_{ig}^P , we first calculate the individual relative political weights g_i :

$$g_i = \frac{ME_{ig}^P}{\sum_{i=1}^n ME_{ig}^P} \quad (\text{A.36})$$

However, since voters cannot influence a political process individually, it is interesting to see which group from the electorate has a greater weight in the political process. Hence, we developed the following government capture index (GC):

$$GC_{1vs2} = \frac{\sum_{i \in 1} g_i}{\frac{a_1}{\sum_{i \in 2} g_i} a_2} \quad (\text{A.37})$$

where a_1 and a_2 are the share of voters in group 1 and 2 respectively.

An index greater than 1 indicates that group 1 “captures” group 2. On the contrary, an index lower than 1 shows that group 2 “captures” group 1. Finally, an index equal to 1 implies that there is no capture.

Bibliography

- Marisa A. Abrajano. Who evaluates a presidential candidate by using non-policy campaign messages? *Political Research Quarterly*, 58(1):55–67, March 2005.
- Peter Achterberg. Class voting in the new political culture: Economic, cultural and environmental voting in 20 western countries. *International Sociology*, 21(2):237–261, mar 2006. doi: 10.1177/0268580906061378.
- Takanori Adachi. Costly participation in voting and equilibrium abstention: a uniqueness result. *Economics Bulletin*, 4(2):1–5, 2004. URL <http://www.economicsbulletin.com/2004/volume4/EB?03D70012A.pdf>.
- James Adams. *Party Competition and Responsible Party Government*. Ann Arbor, MI: University of Michigan Press, 2001.
- James Adams, Samuel Merrill, and Bernard Grofman. *A Unified Theory of Party Competition*. Cambridge Univ. Press, Cambridge, 2005.
- James Adams, Jay Dow, and Samuel Merrill. The political consequences of alienation-based and indifference-based voter abstention: Applications to Presidential Elections. *Political Behavior*, 28(1):65–86, mar 2006. doi: 10.1007/s11109-005-9002-1.
- Alberto Ades and Rafael Di Tella. The causes and consequences of corruption: A review of recent empirical contributions. *IDS Bulletin*, 27(2):6–11, apr 1996. doi: 10.1111/j.1759-5436.1996.mp27002002.x.
- Toke S. Aidt and Dalibor S. Eterovic. Political competition, electoral participation and public finance in 20th century latin america. *European Journal of Political Economy*, 27(1):181–200, mar 2011. doi: 10.1016/j.ejpoleco.2010.06.006.
- Ali T. Akarca and Aysit Tansel. Social and economic determinants of turkish voter choice in the 1995 parliamentary election. *Electoral Studies*, 26(3):633–647, sep 2007. doi: 10.1016/j.electstud.2007.06.001.

- David Arellano-Gault. *Corruption in Latin America*. Taylor & Francis Ltd, September 2019. ISBN 1138583715. URL https://www.ebook.de/de/product/37917007/david_arellano_gault_corruption_in_latin_america.html.
- Jason Ross Arnold. Political awareness, corruption perceptions and democratic accountability in latin america. *Acta Politica*, 47(1):67–90, aug 2011. doi: 10.1057/ap.2011.21.
- David Austen-Smith. Interest groups, campaign contributions, and probabilistic voting. *Public Choice*, 54(2):123–139, 1987. doi: 10.1007/bf00123002.
- Omar Azfar, Young Lee, and Anand Swamy. The causes and consequences of corruption. *The ANNALS of the American Academy of Political and Social Science*, 573(1):42–56, jan 2001. doi: 10.1177/000271620157300103.
- Stephen J. Bailey. *Local Government Economics*. Palgrave Macmillan, 1999.
- Declan P. Bannon. Voting, non-voting and consumer buying behaviour: non-voter segmentation (NVS) and the underlining causes of electoral inactivity. *Journal of Public Affairs*, 3(2):138–151, may 2003. doi: 10.1002/pa.142.
- Benjamin R. Barber. *Strong Democracy*. University of California Press, 2004. ISBN 0520242335. URL https://www.ebook.de/de/product/3441352/benjamin_r_barber_strong_democracy.html.
- Pranab Bardhan and Dilip Mookherjee. Capture and governance at local and national levels. *Political Economy, Governance, and Development*, 90(2):135–139, 2000.
- Pranab Bardhan and Dilip Mookherjee. Relative capture of local and central governments: An essay in the political economy of decentralization. Working Paper C99-109, Center of International and Development Economics Research CIDER, 2002.
- David P. Baron. Electoral competition with informed and uniformed voters. *American Political Science Review*, 88:33–47, 1994.
- Larry M. Bartels. Partisanship and voting behavior. *American Journal of Political Science*, 44(1):35–50, 2000.

- Stephen Earl Bennett and David Resnick. The implications of nonvoting for democracy in the united states. *American Journal of Political Science*, 34(3):771, aug 1990. doi: 10.2307/2111398.
- André Blais. *To Vote or Not to Vote*. University of Pittsburgh Press, aug 2000. doi: 10.2307/j.ctt5hjrrf.
- BMEL. Farming, 2020. URL https://www.bmel.de/EN/topics/farming/farming_node.html.
- Simone R. Bohn. Corruption in latin america: Understanding the perception-exposure gap. *Journal of Politics in Latin America*, 4(3):67–95, dec 2012. doi: 10.1177/1866802x1200400303.
- William A. Brock and Stephen P. Magee. The economics of special interest politics: The case of the tariff. *The American Economic Review*, 68:246–250, 1978.
- Bundeswahlleiter. Wahlbeteiligung, 2019. URL <https://www.bundeswahlleiter.de/service/glossar/w/wahlbeteiligung.html>. Last access: 19.02.2021.
- Bundeswahlleiter. Bundestagswahl 2017 - Ergebnisse Deutschland, 2021. URL <https://www.bundeswahlleiter.de/bundestagswahlen/2017/ergebnisse/bund-99.html>. Last access: 21.01.2021.
- Walter Dean Burnham and Reichley A James. The turnout problem. *Elections American Style*, pages 97–133, 1987.
- JAMES CAILLIER. Citizen trust, political corruption, and voting behavior: Connecting the dots. *Politics and Policy*, 38(5):1015–1035, sep 2010. doi: 10.1111/j.1747-1346.2010.00267.x.
- Angus Campbell, Philip Converse, Warren Miller, and Donald Stokes. *The American Voter*. John Wiley, New York, 1960.
- Edward G. Carmines and James A. Stimson. The two faces of issue voting. *American Political Science Review*, 74(1):78–91, mar 1980. doi: 10.2307/1955648.
- Thomas E. Cavanagh. Changes in american voter turnout, 1964-1976. *Political Science Quarterly*, 96(1):53, 1981. doi: 10.2307/2149676.

- Richard J. Cebula. Strong presidential approval or disapproval influencing the expected benefits of voting and the voter participation rate. *Atlantic Economic Journal*, 33(2): 159–167, jun 2005. doi: 10.1007/s11293-005-3760-3.
- Sarah Chayes. When corruption is the operating system: the case of honduras. *CarnegieEndowment for International Peace*, May 2017. URL https://carnegieendowment.org/files/Brief-Chayes_Honduras.pdf.
- Harold D. Clarke, David Sanders, Marianne C. Stewart, and Paul Whiteley. *Political Choice in Britain*. Oxford University Press, mar 2004. doi: 10.1093/019924488x.001.0001.
- Stephen Coate. Political competition with campaign contributions and informative advertising. *Journal of the European Economic Association*, 2(5):772–804, September 2004.
- Kenneth E. Collier, Richard D. McKelvey, Peter C. Ordeshook, and Kenneth C. Williams. Retrospective voting: An experimental study. *Public Choice*, 53(2):101–130, 1987. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30024738>.
- Consejo Nacional Anticorrupción. Nuevo código penal(estudio y análisis), May 2020. URL <https://www.cna.hn/wp-content/uploads/2020/05/ESTUDIO-FINAL-Y-ANALISIS-AL-DECRETO-LEGISLATIVO.pdf>.
- Constitutional Council of Senegal. Senegalese Presidential Election Results 2019. Published by the Constitutional Council of the Republic of Senegal (website), March 2019. URL: <https://conseilconstitutionnel.sn/decision-n-4-e-2019-affaire-n-25-e-19/>.
- Yves Croissant. Estimation of multinomial logit models in r: The mlogit packages, 2012. URL <http://cran.r-project.org/web/packages/mlogit/vignettes/mlogit.pdf>.
- David F. Damore, Mallory M. Waters, and Shaun Bowler. Unhappy, uninformed, or uninterested? understanding “none of the above” voting. *Political Research Quarterly*, 65(4):895–907, dec 2011. doi: 10.1177/1065912911424286.
- Otto Davis, Hinrich J. Melvin, and Peter C. Ordeshook. An expository development of a mathematical model of the electoral process. *American Political Science Review*, 64: 426–48, 1970.

- Henry De-Graft Acquah. Comparison of akaike information criterion (aic) and bayesian information criterion (bic) in selection of an asymmetric price relationship. *Journal of Development and Agricultural Economics*, 2(1):001–006, 2010. URL <http://www.academicjournals.org/JDAE>.
- Arianna Degan and Antonio Merlo. A STRUCTURAL MODEL OF TURNOUT AND VOTING IN MULTIPLE ELECTIONS. *Journal of the European Economic Association*, 9(2):209–245, feb 2011. doi: 10.1111/j.1542-4774.2010.01013.x.
- David Dollar and William Easterly. The search for the key: Aid, investment and policies in Africa. *Journal of African Economies*, 8(4):546–577, 1999.
- Anthony Downs. *An Economic Theory of Democracy*. Harper and Row, New York, 1957.
- Raymond M. Duch. A developmental model of heterogeneous economic voting in new democracies. *American Political Science Review*, 95(4):895–910, dec 2001. doi: 10.1017/s0003055400400080.
- Elections Canada. Forty-third general election 2019 official voting results. www.elections.ca, 2019. URL <https://www.elections.ca/res/rep/off/ovr2019app/51/table3E.html>.
- James M. Enelow and Melvin J. Hinich. *The Spatial Theory of Voting: An Introduction*. Cambridge University Press, New York, 1984.
- Sören Enkelmann. Government popularity and the economy—first evidence from german micro data. University of Lüneburg Working Paper Series in Economics, May 2013. URL www.leuphana.de/institute/ivwl/publikationen/working-papers.html.
- Dominik H. Enste and Christina Heldman. The consequences of corruption, September 2018.
- Robert Erikson and David Romero. Candidate equilibrium and the behavioral model of the vote. *American Political Science Review*, 84:1103–26, 1990.
- Dalibor S. Eterovic and Nicolás A. Eterovic. Political competition versus electoral participation: effects on government’s size. *Economics of Governance*, 13(4):333–363, aug 2012. doi: 10.1007/s10101-012-0114-x.

- Timothy J. Feddersen and Wolfgang Pesendorfer. Abstention in elections with asymmetric information and diverse preferences. *American Political Science Review*, 93(2):381–398, jun 1999. doi: 10.2307/2585402.
- Federal Election Commission. Election results. website, June 2022. URL <https://www.fec.gov/introduction-campaign-finance/election-and-voting-information/>.
- Federal Statistical Office. Election results. www.elections.admin.ch, 2019. URL <https://www.elections.admin.ch/en/ch/>.
- Morris Fiorina. *Retrospective Voting in American National Elections*. Yale University Press, New Haven, 1981.
- Morris P. Fiorina. Economic retrospective voting in american national elections: A micro-analysis. *American Journal of Political Science*, 22:426–443, 1978.
- David Fortunato and Randolph T. Stevenson. Performance voting and knowledge of cabinet composition. *Electoral Studies*, 32(3):517–523, sep 2013. doi: 10.1016/j.electstud.2013.05.001.
- Marta Fraile and Michael S. Lewis-Beck. Multi-dimensional economic voting in spain: The 2008 election. *Electoral Studies*, 32:465–469, 2013. doi: doi:10.1016/j.electstud.2013.05.027. URL <http://www.sciencedirect.com/science/article/pii/S0261379413000759>.
- Alessandro Gavazza, Mattia Nardotto, and Tommaso Valletti. Internet and politics: Evidence from u.k. local elections and local government policies. *The Review of Economic Studies*, 86(5):2092–2135, jun 2018. doi: 10.1093/restud/rdy028.
- Amanda Gibson. 10 facts about corruption in honduras. website, March 2020. URL <https://borgenproject.org/corruption-in-honduras/>.
- Global Agriculture and Food Security Program. Corredor seco food security project (prosasur). <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>, 2018. URL <https://www.gafspfund.org/projects/corredor-seco-food-security-project-prosasur>.

- Brad T. Gomez and Matthew J. Wilson. Political sophistication and economic voting in the american electorate: A theory of heterogeneous attribution. *American Journal of Political Science*, 45:899–914, 2001.
- Brad T. Gomez and Matthew J. Wilson. Causal attribution and economic voting in american congressional elections. *Congressional Research Quarterly*, 56:271–282, 2003.
- William H. Greene. *Econometric Analysis*. Prentice Hall, 6th edition, 2008.
- Bernard Grofman. Is turnout the paradox that ate rational choice theory. *The University of Michigan Press*, 1995.
- Gene M. Grossman and Elhanan Helpman. Electoral Competition and Special Interest Politics. *Review of Economic Studies*, 63(2):265–286, 1996.
- Jean Baldwin Grossman. Evaluating social policies: Principles and U.S. experience. *The World Bank research observer*, 9(2):159–180, 1994.
- J. R. Happy. Economic performance and retrospective voting in canadian federal elections. *Canadian Journal of Political Science / Revue canadienne de science politique*, 22(2):377–387, 1989. ISSN 00084239, 17449324. URL <http://www.jstor.org/stable/3228287>.
- A. F. Heath. *How Britain votes*. Pergamon Press, Oxford Oxfordshire New York, 1985. ISBN 9780080326474.
- Christian Henning, Ousmane Badiane, and Eva Krampe, editors. *Development Policies and Policy Processes in Africa*. Springer International Publishing, 2018. doi: 10.1007/978-3-319-60714-6.
- Christian H. C. A. Henning, Laura Seide, and Svetlana Petri. Voter behavior and government performance in Malawi: An application of a probabilistic voting model. In *Modeling and Evaluation of CAADP-Policies: Methodological Challenges and Practical Solutions*. International Food Policy Research Institute, 2014.
- Alexander M. Hicks and Duane H. Swank. Politics, institutions, and welfare spending in industrialized democracies, 1960–82. *American Political Science Review*, 86(3): 658–674, sep 1992. doi: 10.2307/1964129.

- Jennifer L. Hochschild. If democracies need informed voters, how can they thrive while expanding enfranchisement? *Rules, Politics, and Policy*, 2(9):111–123, June 2010.
URL <https://scholar.harvard.edu/jlhochschild/publications/if-democracies-need-informed-voters-how-can-they-thrive-while-expanding-en>.
- Marc Hooghe and Koen Pelleriaux. Compulsory voting in belgium: An application of the lijphart thesis. *Electoral Studies*, 17(4):419–424, dec 1998. doi: 10.1016/s0261-3794(98)00021-3.
- H. Hotelling. Stability in competition. *The Economic Journal: The Journal of Royal Society*, 39:41–57, 1929.
- Houses of the Oireachtas. 33rd dáilgeneral election. www.oireachtas.ie, February 2020.
URL <https://www.oireachtas.ie/en/elections/>.
- Human Rights Watch. World report 2021: Honduras events of 2020. website, 2021. URL <https://www.hrw.org/world-report/2021/country-chapters/honduras>.
- Bryan W. Husted. Culture and international anti-corruption agreements in latin america. *Journal of Business Ethics*, 37(4):413–422, 2002. doi: 10.1023/a:1015248921716.
- InSight Crime. Honduras’ new criminal code will help impunity prosper, June 2020.
URL <https://insightcrime.org/news/analysis/honduras-new-criminal-code/>.
- Crewe James Alt and Fox. Non-voting in british general elections 1966-october 1974. *Croom Agrimedia*, 1977.
- Ron Johnston and Charles Pattie. Dimensions of retrospective voting. *Party Politics*, 7(4):469–490, jul 2001. doi: 10.1177/1354068801007004004.
- Rasma Karklins. Soviet elections revisited: Voter abstention in noncompetitive voting. *American Political Science Review*, 80(2):449–469, jun 1986. doi: 10.2307/1958268.
- Jonathan N. Katz and Gabriel Katz. Reassessing the link between voter heterogeneity and political accountability: A latent class regression model of economic voting. Paper presented at the Poster Session of the 26th Annual Summer Meeting of the Society for Political Methodology, 2009.

- Philip Keefer and Stuti Khemani. Democracy, public expenditures, and the poor: Understanding political incentives for providing public services. *The World Bank Research Observer*, 20(1):1–27, Spring 2005.
- Stuti Khemani. Political cycles in a developing economy: Effect of elections in the indian states. *Journal of Development Economics*, 73(1):125–154, February 2004.
- Donald R. Kinder and Roderick Kiewiet. Economic discontent and political behavior: The role of personal grievances and collective economic judgements in congressional voting. *American Journal of Political Science*, 23:495–527, 1979.
- Donald R. Kinder and Roderick Kiewiet. Sociotropic politics: The american case. *British Journal of Political Science*, 11:129–161, 1981.
- Gebhard Kirchgässner. Towards a theory of low-cost decisions. *European Journal of Political Economy*, 8(2):305–320, may 1992. doi: 10.1016/0176-2680(92)90028-f.
- Peter Kooreman and Marco A. Haan. How majorities can lose the election another voting paradox. *Social Choice and Welfare*, 20(3):509–522, jun 2003. doi: 10.1007/s003550200196.
- TATIANA KOSTADINOVA. Abstain or rebel: Corruption perceptions and voting in east european elections. *Politics and Policy*, 37(4):691–714, aug 2009. doi: 10.1111/j.1747-1346.2009.00194.x.
- Anida Krajina and Jakub Prochazka. Motives behind voting and the perception of the motives: paradox of voting in bosnia and herzegovina. *Eurasian Economic Review*, 8(3):451–483, dec 2017. doi: 10.1007/s40822-017-0087-8.
- Gerald H. Kramer. Short-term fluctuations in u.s. voting behavior, 1896-1964. *American Political Science Review*, 65:131–143, 1971.
- Gerald H. Kramer. The ecological fallacy revisited: Agregate versus individual-level evidence on economics and elections and sociotropic voting. *American Political Science Review*, 77:92–111, 1983.
- LAPOP. Lapop datasets - search page. LAPOP. URL <http://datasets.americasbarometer.org/database/index.php?freeUser=true>.

- LAPOP. Americasbarometer, 2018/19. technical information. LAPOP, October 2019a. URL https://www.vanderbilt.edu/lapop-espanol/AmericasBarometer_2018-19_Technical_Report_W_102919.pdf.
- LAPOP. Resultados preliminares 2019: Barómetro de las américas en honduras. LAPOP, 2019b. URL https://www.vanderbilt.edu/lapop/honduras/AB2018-19_Honduras_RRR_W_09.25.19.pdf.
- Paul Lazarsfeld, Bernard Berelson, and Hazel Gaudet. *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. Columbia University Press, New York, 1968.
- Kai Enno Lehmann. The social conditions of corruption in honduras: What they are, what they mean, and what can be done about them. In *Corruption in Latin America*, pages 265–286. Springer International Publishing, oct 2018. doi: 10.1007/978-3-319-94057-1_11.
- Jan E. Leighley and Jonathan Nagler. Socioeconomic class bias in turnout, 1964–1988: The voters remain the same. *American Political Science Review*, 86(3):725–736, sep 1992. doi: 10.2307/1964134.
- Michael S. Lewis-Beck. Comparative economic voting: Britain, france, germany, italy. *American Journal of Political Science*, 30(2):315, may 1986. doi: 10.2307/2111099.
- Michael S. Lewis-Beck and Richard Nadeau. French electoral institutions and the economic vote. *Electoral Studies*, 19:171–182, 2000.
- Michael S. Lewis-Beck and Maria Celeste Ratto. Economic voting in latin america: A general model. *Electoral Studies*, 32(3):489–493, sep 2013. doi: 10.1016/j.electstud.2013.05.023.
- Arend Lijphart. Unequal participation: democracy's unresolved dilemma. *American Political Science Review*, 91:1–14, March 1997. URL <https://escholarship.org/uc/item/13n5q9qx>.
- S.M. Lipset and S. Rokkan. *Party Systems and Voter Alignments. Cross-national Perspectives*. The Free Press, New York, 1967.

-
- Stephen P. Magee, William Allen Brock, and Leslie Young. *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. Cambridge University Press, Cambridge, 1989.
- Luigi Manzetti and Charles H. Blake. Market reforms and corruption in latin america: New means for old ways. *Review of International Political Economy*, 3(4):662–697, dec 1996. doi: 10.1080/09692299608434376.
- D. McFadden. Conditional logit analysis of qualitative choice behavior. *Frontiers in econometrics*, P. Zarembka (ed.), Academic Press: New York:105–142, 1974. URL <http://www.econ.berkeley.edu/reprints/mcfadden/zarembka.pdf>.
- D. McFadden. Qualitative response models. *Advances in Econometrics, Econometric Society Monographs*, Hildenbrand (ed.), Cambridge University Press, 1982.
- Daniel McFadden. Modelling the Choice of Residential Location. *Cowles Foundation for Research in Economics, Yale University*, 1977. URL <https://EconPapers.repec.org/RePEc:cwl:cwldpp:477>.
- Hunter McFerrin. The preventable causes of poverty in honduras. website, September 2017. URL <https://www.borgenmagazine.com/preventable-causes-of-poverty-in-honduras/>.
- Roy Fernando Millares. Honduras y la legislación internacional contra la corrupción y el soborno, un problema ético y jurídico. *La Revista de Derecho*, 41:239–253, dec 2020. doi: 10.5377/lrd.v41i1.10543.
- Warren Edward Miller and J. Merrill Shanks. *The New American Voter*. Harvard University Press, 1996.
- Roger B. Myerson. Population Uncertainty and Poisson Games. Center for Mathematical Studies in Economics and Management Science Northwestern University, June 1997.
- Hanne Marthe Narud and Henry Valen. Decline of electoral turnout: The case of norway. *European Journal of Political Research*, 29(2):235–256, mar 1996. doi: 10.1111/j.1475-6765.1996.tb00650.x.
- Vahideh Negin, Zakariah Abd Rashid, and Hesam Nikopour. The causal relationship

- between corruption and poverty: A panel data analysis. *Munich Personal RePEc Archive*, 2010. URL <https://mpra.ub.uni-muenchen.de/id/eprint/24871>.
- K. Nylund, T. Asparouhov, and B. Muthen. Deciding on the number of classes in latent class analysis and growth mixture modeling: A monte carlo simulation study. *Structural Equation Modeling: An Interdisciplinaty Journal*, 14:535–569, 2007. URL http://research.son.wisc.edu/rdsu/Article_106.pdf.
- Rafael Oganessian. Economic voting in the developing world. 2014. doi: 10.34917/6456431.
- Marvin E. Olsen. Two categories of political alienation. *Social forces*, 47(3):288–299, 1969.
- Guillermo Owen and Bernard Grofman. To vote or not to vote: The paradox of nonvoting. *Public Choice*, 42(3):311–325, 1984. ISSN 00485829, 15737101. URL <http://www.jstor.org/stable/30023745>.
- Alexander Pacek and Benjamin Radcliff. Turnout and the vote for left-of-centre parties: A cross-national analysis. *British Journal of Political Science*, 25(1):137–143, 1995. URL www.jstor.org/stable/194180.
- Thomas R. Palfrey and Howard Rosenthal. A strategic calculus of voting. *Public Choice*, 41(1):7–53, 1983. doi: 10.1007/bf00124048.
- Rohini Pande. Can informed voters enforce better governance? experiments in low-income democracies. *Annual Review of Economics*, 3:215–237, September 2011.
- Carole Pateman. *Participation and Democratic Theory*. Cambridge University Press, oct 1970. doi: 10.1017/cbo9780511720444.
- Michael Peress. The spatial model with non-policy factors: A theory of policy-motivated candidates. *Social Choice and Welfare*, 34(2):265–294, February 2010. doi: 10.1007/s00355-009-0396-2. URL http://www.rochester.edu/College/faculty/mperess/Non_Policy_Factors.pdf.
- Dennis L. Plane and Joseph Gershtenson. Candidates' ideological locations, abstention, and turnout in u.s. midterm senate elections. *Political Behavior*, 26(1):69–93, mar 2004. doi: 10.1023/b:pobe.0000022344.05382.b4.

- Jan Potters, Randolph Sloof, and Frans van Winden. Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior. *European Journal of Political Economy*, 13(1):1–31, 1997. URL <https://ideas.repec.org/a/eee/poleco/v13y1997i1p1-31.html>.
- Kim Quaile Hill and Jan E. Leighley. The policy consequences of class bias in state electorates. *American Journal of Political Science*, 36(2):351, may 1992. doi: 10.2307/2111481.
- Lyn Ragsdale and Jerrold G. Rusk. Who are nonvoters? profiles from the 1990 senate elections. *American Journal of Political Science*, 37(3):721, aug 1993. doi: 10.2307/2111572.
- W.H. Riker and P.C. Ordeshook. *An Introduction to Positive Political Theory*. Englewood Cliffs, NJ: Prentice-Hall, 1973.
- William H. Riker and Peter C. Ordeshook. A theory of the calculus of voting. *American Political Science Review*, 62:25–42, 1968.
- Marisa Ramos Rollón and Francisco Javier Álvarez García. El control de la corrupción en américa latina: agenda política, judicialización e internacionalización de la lucha contra la corrupción. *Dialnet*, 11, 2019. ISSN 1885-9119. URL <https://dialnet.unirioja.es/servlet/articulo?codigo=7097495>.
- Jose M. Sabucedo and Duncan Cramer. Sociological and psychological predictors of voting in great britain. *The Journal of Social Psychology*, 131(5):647–654, oct 1991. doi: 10.1080/00224545.1991.9924648.
- Robert H. Salisbury. Research on political participation. *American Journal of Political Science*, 19(2):323, may 1975. doi: 10.2307/2110440.
- Hindy Lauer Schachter. Reinventing government or reinventing ourselves: Two models for improving government performance. *Public Administration Review*, 55(6):530, nov 1995. doi: 10.2307/3110344.
- Harald Schoen. *Handbuch Wahlforschung*, chapter Soziologische Ansätze in der empirischen Wahlforschung, pages 169–239. Springer Fachmedien Wiesbaden, Wiesbaden, 2014.

- Norman Schofield, Maria Gallego, and JeeSeon Jeon. Leaders, voters and activists in the elections in great britain 2005 and 2010. *Electoral Studies*, 30:484–496, 2011. doi: 10.1016/j.electstud.2011.03.001. URL <http://www.sciencedirect.com/science/article/pii/S0261379411000333>.
- Norman J. Schofield. The Mean Voter Theorem: Necessary and Sufficient Conditions for Convergent Equilibrium. *Review of Economic Studies*, 74:965–980, 2007.
- Laura Seide. *Voter Behavior and Government Performance: Theory and Empirical Application in Sub-Saharan Africa*. PhD thesis, University Kiel, Department of Agricultural Economics, 2014. URL http://macau.uni-kiel.de/servlets/MCRFileNodeServlet/dissertation_derivate_00005994/Dissertation_Laura_Seide.pdf.
- Servicio Electoral de Chile. Elección de presidente 2017. website Servicio Electoral de Chile <http://www.servel.cl/>, December 2017. URL <https://historico.servel.cl/servel/app/index.php?r=EleccionesGenerico&id=216>.
- Goldie Shabad and Kazimierz M. Slomczynski. Voters' perceptions of government performance and attributions of responsibility: Electoral control in poland. *Electoral Studies*, 30(2):309–320, jun 2011. doi: 10.1016/j.electstud.2010.10.002.
- Matthew M. Singer and Ryan E. Carlin. Context counts: The election cycle, development, and the nature of economic voting. *The Journal of Politics*, 75(3): 730–742, jul 2013. doi: 10.1017/s0022381613000467.
- Peter Soederlund. Retrospective voting and electoral volatility: A nordic perspective. *Scandinavian Political Studies*, 31(2):217–240, may 2008. doi: 10.1111/j.1467-9477.2008.00203.x.
- Abdurashid Solijonov. *Voter turnout trends around the World*. IDEA, Stockholm, 2016. ISBN 9789176710838.
- State Elections Offices. Official 2020 presidential general election results. website, November 2020. URL <https://www.fec.gov/resources/cms-content/documents/2020presgeresults.pdf>.
- Philip Andrew Stevens. Assessing the performance of local government. *National Institute Economic Review*, 193:90–101, 2005.

- Dieter Stiers. Political information and retrospective voting. *West European Politics*, 44 (2):275–298, dec 2019. doi: 10.1080/01402382.2019.1697564.
- Daniel Stockemer. Corruption and turnout in presidential elections: A macro-level quantitative analysis. *Politics and Policy*, 41(2):189–212, apr 2013. doi: 10.1111/polp.12012.
- Daniel Stockemer. Turnout in developed and developing countries. *Political Science*, 67 (1):3–20, jun 2015. doi: 10.1177/0032318715585033.
- Daniel Stockemer and Andre Blais. Voters and abstainers in national and european elections. *European Review*, 27(02):300–315, jan 2019. doi: 10.1017/s1062798718000728.
- Daniel Stockemer, Bernadette LaMontagne, and Lyle Scruggs. Bribes and ballots: The impact of corruption on voter turnout in democracies. *International Political Science Review*, 34(1):74–90, apr 2012. doi: 10.1177/0192512111419824.
- The Economist Intelligence Unit. Democracy index 2020: In sickness and in health? *The Economist Intelligence Unit Limited*, 2021.
- The World Bank. Poverty headcount ratio at \$1.90 a day (2011 ppp) (% of population) - germany. <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE> (accessed on August 1, 2021), 2016a. URL <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=DE>.
- The World Bank. Prevalence of stunting, height for age (% of children under 5) - germany. <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE> (accessed on August 5, 2021), 2016b. URL <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE>.
- The World Bank. Poverty headcount ratio at national poverty lines (% of population) - germany. <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE> (accessed on August 1, 2021), 2018. URL <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=DE>.
- The World Bank. The world bank in honduras. website, 2019. URL <https://www.worldbank.org/en/country/honduras/overview>.

- The World Bank. Poverty & equity brief latin america & the caribbean honduras. website, April 2020. URL https://databank.worldbank.org/data/download/poverty/33EF03BB-9722-4AE2-ABC7-AA2972D68AFE/Global_POVEQ_HND.pdf.
- The World Bank. The world bank in germany. <https://www.worldbank.org/en/country/germany/overview> (accessed on August 1, 2021), 2021a. URL <https://www.worldbank.org/en/country/germany/overview>.
- The World Bank. Employment in agriculture (/estimate) - germany. <https://data.worldbank.org/indicator/SH.STA.STNT.ZS?locations=DE> (accessed on August 5, 2021), 2021b. URL <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=DE>.
- Paul Thurner and Angelika Eymann. Policy-specific alienation and indifference in the calculus of voting: A simultaneous model of party choice and abstention. *Public Choice*, 102:51–77, 2000.
- Transparency International. Corruption perceptions index 2017. website, 2018. URL https://images.transparencycdn.org/images/2017_CPI_Brochure_EN_200406_140253.PDF.
- Transparency International. Corruption perceptions index 2020. website, January 2021. URL https://images.transparencycdn.org/images/CPI2020_Report_EN_0802-WEB-1.pdf.
- Rita Trautmann and Dennis Munoz. Hoping for a better future. *Development and Cooperation*, April 2019. URL <https://www.dandc.eu/en/article/poverty-crime-and-poor-governance-are-causing-people-flee-droves-honduras>.
- Tribunal Calificador de Elecciones. Resultados e elecciones. website, June 2022. URL <https://tribunalcalificador.cl/resultados-de-elecciones/>.
- Tribunal Supremo Electora. Resultados electorales. website, June 2022. URL http://www.tse.hn/web/estadisticas/procesos_electorales.html#.
- Tribunal Supremo Electoral Honduras. Declaratoria de elecciones generales 2017. website Tribunal Supremo Electoral Honduras <http://www.tse.hn/WEB/>, December 2017. URL https://www.tse.hn/WEB/elecciones_2017_EG/Declaratoria_EG_2017.pdf.

- Carole J. Uhlaner. Rational turnout: The neglected role of groups. *American Journal of Political Science*, 33:390–422, 1989.
- UN High Commissioner for Refugees. Children on the run: Unaccompanied children leaving central america and mexico and the need for international protection, March 2014. URL <https://www.refworld.org/docid/532180c24.html>.
- UN High Commissioner for Refugees. Women on the run: First-hand accounts of refugees fleeing el salvador, guatemala, honduras, and mexico, October 2015. URL <https://www.refworld.org/docid/56307e2a4.html>.
- United Nations Office on Drugs and Crime. Victims of intentional homicide, 1990-2018. website, 2018. URL <https://dataunodc.un.org/content/data/homicide/homicide-rate>.
- Josep M. Vilajosana. La justificación de la abstención. *Revista de Estudios Políticos*, (104), 1999.
- Martin P. Wattenberg. *Where Have All the Voters Gone?* Harvard University Press, 2002.
- Kurt Gerhard Weyland. The politics of corruption in latin america. *Journal of Democracy*, 9(2):108–121, 1998. doi: 10.1353/jod.1998.0034.
- World Bank. Control of corruption, value, 2019. URL https://tcdata360.worldbank.org/indicators/hc153e067?country=HND&indicator=364&viz=line_chart&years=1996,2019.

