8-1-2014

# Economic Voting in the Developing World

Rafael Oganesyan
*University of Nevada, Las Vegas*, oganesya@unlv.nevada.edu

# ECONOMIC VOTING IN THE DEVELOPING WORLD

By

Rafael Oganesyan

Bachelor of Arts in Political Science
University of Nevada, Las Vegas
2010

Bachelor of Arts in Economics
University of Nevada, Las Vegas
2008

A thesis submitted in partial fulfillment
of the requirements for the

Master of Arts - Political Science

Department of Political Science
College of Liberal Arts
The Graduate College

University of Nevada, Las Vegas
August 2014

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

THE GRADUATE COLLEGE

We recommend the thesis prepared under our supervision by

**Rafael Oganesyan**

entitled

**Economic Voting in the Developing World**

is approved in partial fulfillment of the requirements for the degree of

**Master of Arts - Political Science**
**Department of Political Science**

John Tuman, Ph.D., Committee Chair

David Damore, Ph.D., Committee Member

Christian Jensen, Ph.D., Committee Member

Thomas Carroll, Ph.D., Committee Member

Bernard Malamud, Ph.D., Graduate College Representative

Kathryn Hausbeck Korgan, Ph.D., Interim Dean of the Graduate College

**August 2014**

**Abstract**

A plethora of ink has been spilled demonstrating the relationship between economics and voter behavior. Unfortunately, the overwhelming majority of scholarship has concentrated on the empirical assessment of economic voting within the context of developed countries. The present thesis widens the scope of study by testing the applicability of the classic economic voting theory (CEVT) strictly within developing countries. The results suggest that while voters in developing countries do take the economy into account, they do so in a manner that's partially different from what CEVT predicts. Voters in developing countries simultaneously assume both retrospective sociotropic and prospective sociotropic characteristics. Furthermore, economic voting in the developing world takes place within an asymmetrical framework of punishment and reward. The findings suggest that choice theory and its derivative CEVT are ill-equipped at explaining economic voting behavior in developing countries.

**Acknowledgements**

This research would have not been possible without the exceptional input by members of my committee alongside distinguished UNLV professors. First, an insurmountable amount of gratitude is owed to Dr. Michele Kuenzi and committee member Dr. David Damore for introducing me to the study of economic voting in their seminar on comparative political behavior. I also want to thank committee members Dr. Christian Jensen, Dr. Thomas Carroll, and Dr. Bernard Malamud for providing me with theoretical and methodological advice. I want to especially thank Dr. John Tuman for not only chairing my committee but for realizing the passion that I have for the study of economic voting and for guiding that passion to its result. The initial concept behind this thesis was to provide one of the most comprehensive accounts of economic voting in the developing world, and under the guidance of Dr. Tuman I was able to theoretically, methodologically, and coalesce my research agenda.

## Table of Contents

## List of Tables

## Chapter 1 - Introduction

Does economics influence voter behavior? A plethora of studies since 1970 have attempted to quantitatively assess the connection between economics and elections, ultimately producing a dominant perspective on voter behavior referred to as economic voting. Relying on the responsibility hypothesis within democratic theory, which notes that voters hold governments responsible for the management of economic policy, the economic voting perspective asserts that electoral outcomes are partially influenced by economic matters. The theory consists of numerous dimensions: valence, positional and patrimonial economic voting. An overwhelming majority of the works have assumed a valence dimension, engaging in reductionism through the application of the parsimonious classic economic voting model[1]. In other words, valence economic voting makes the assumption that the electoral decision-making of the citizenry is based on its evaluation of the economy. Elections thus become merel-y "a referendum on the economic performance of the incumbent government" (Duch 2001, 895).

The voluminous literature on economic voting, which today exceeds eight-hundred works, has to a large extent concentrated on a parsimonious interpretation of economic voting. Valence economic voting, or what will be referred to as the classic economic voting theory (CEVT), has been the dominant form of economic voting in the majority of scholarship. While the existence of CEVT has been overwhelmingly demonstrated, its application has been limited to the United States and Western Europe. The growing consensus on the presence of economic voting in the developed world has

[1] Throughout the paper valence economic voting and classic economic voting theory will be used interchangeably. In essence, scholarship has attributed valence economic voting as the classic economic voting theory.

largely been settled, with recent studies shifting towards the application of alternative dimensions of economic voting (e.g. Lewis-Beck et. al., 2010; Lewis-Beck and Nadeau, 2011; Lewis-Beck et al., 2012; Foucault et. al., 2013; Stubager et. al., 2013). Sadly, the developing world has failed to receive its equal share of scholarly attention. Despite the recent scholarly interest in developing countries, the share of research and academic ink spilled still dwarfs that of advanced industrial democracies.

The aim of the following thesis is fill the vacuum with a comprehensive account of economic voting in the developing world. The paper seeks to understand whether the theoretical framework and methodological tools that are incorporated into CEVT are applicable within developing democracies. Does prospect theory provide an alternative theoretical framework? Methodologically, do studies of economic voting in the developing world suffer from the so-called "Kramer problem" or the inability of subjective micro-level results to mirror aggregate objective findings? Due to a lack of cross-national studies, questions still linger on the application of economic voting in the developing world. If economic voting is present, then what is its determinant? Furthermore, how does economic voting in developing countries compare with mature democracies?

A comprehensive study of economic voting in the developing world is vital towards understanding the saliency of the paradigm. Since the overwhelming majority of states are classified as developing countries, research into the economic voting patterns of the developing world can provide greater inferential power and universality of the economic voting research agenda. Furthermore, unlike past works that solely concentrate on a fraction of countries, the majority of whom are economically and politically

developed states, a concentration on developing democracies can help the discipline better grasp the economic character of the majority of territories and individuals.

**Why Study Economic Voting in Developing Countries?**

This study defines developing countries as such states which are in the process of consolidating democratic and economic institutions. Such nations not only lack the mature economic structure present in western societies, but also the notion of consolidated democracy. According to Cheibub and Przeworski (1999), there are four criteria used to identify democracies. They include (1) election of the chief executive; (2) election of the legislature; (3) multiparty elections; (4) and the loss of power and yielding of office by incumbent parties. Since the following research is strictly oriented around legislative elections in the developing world, the first criterion will be omitted in the identification of case study inclusion. The fourth criterion is also problematic when assessing legislative election in such countries as Botswana. The small African country of Botswana is held as a beacon for democracy in numerous analyses, yet the Botswana Democratic Party (BDP) has yet to lose a parliamentary election. As such, Cheibub and Przeworski's fourth criterion will also be omitted.

A further classification of developing countries is based on the International Monetary Fund's World Economic Outlook country classification. The latter divides the world into two categories: (1) advanced economies and (2) emerging and developing economies[2]. Thus, the list of countries in the following study includes members of the

[2] The reason for the reliance on the Fund's definition of a developing economy is that it provides the most accurate classification of developing countries. For example, The United Nation's World Economic Situation and Prospects (WESP) classifies countries into three categories: developed economies, economies in transition and developing economies. Under the WESP standards countries such as Bulgaria, Romania

Fund's emerging and developing economies list. Furthermore, to properly test the role of economics on elections in developing democracies, a method of election inclusion needs to be established. The following study uses the Polity IV democracy score index to merit electoral inclusion. To be considered a developing democracy, a developing country must at least attain a Polity score of six or above[3].

Developing countries provide an intriguing atmosphere to quantify the role of the economy in electoral decision-making. First, developing countries tend to display greater levels of macroeconomic volatility (Rodrik, 2001) and variance in economic performance (Pacek and Radcliff, 1995; Gelineau, 2013). An overwhelming majority of developing countries have witnessed an unprecedented form of economic change and uncertainty. Whether due to the ills of import substitution industrialization (ISI) or the transition from a central planned economy, the implementation of neoliberal economic reforms in the developing world brought with it economic shock therapy in the form of rapid growth-led economic policies which created volatile business cycles, increased social inequality and ultimately created an atmosphere of economic uncertainty. Thus, the volatile nature of the economic transformation in the developing world gives continuous saliency of economic issues during electoral periods. Granted that different regions experienced different forms and degrees of economic shock, the fact still remains that the economy is of greater concern in the developing world.

---

and Hungary along with the newly European Union members are classified as developed economies. The IMF however classifies such countries as developing economies. Although the formulas differ between the two intergovernmental organizations, The Fund refrains from lumping all EU members into the 'developed' category and instead differentiates between member economies. Thus, the Fund provides a substantially accurate portrayal of the groups of nation-states

[3] A country such as China, while an emerging and developing economy, lacks the political characteristics to be considered a developing democracy and is excluded from the study.

Studies have shown that the level of the economy's salience increases during recessionary periods (Singer, 2011). The fact that economic issues tend to rise during periods of economic downturns, furthers the notion that voters use economic-based heuristics in the voting booth. Furthermore, since greater economic volatility leads to increased chances of economic downturns, we expect that the increased number of bad economic times to further increase the chances of the presence of economic voting in the developing world. In addition, historical responses to economic crisis have differed in developing countries from their developed counterparts. Whereas economic crisis in the latter triggered economic models that favor Keynesian-type government intervention, economic crisis in the former led to the opposite effect. Examples such as the 1982 debt crisis in Latin America and the economic collapse of centralized market economics in Eastern Europe and the Soviet Union triggered laissez-faire policies that aimed to decrease the role of government in society and the market. As such, voters in developing countries naturally may very well place economics at the forefront of their voting function in higher levels than voters in developed countries.

Second, the infant nature of political parties combined with the overwhelming presence of electoral volatility in the developing world casts further optimism towards the presence of economic voting. The so-called "Michigan model" notes that the voting function is determined by a combination of both short-term and long-term factors (Lewis-Beck et al., 2009; Nadeau et al., 2013). Whereas economics tends to be included in short-term factors, party identification and ideology are assumed to be long-term factors. This is due to the fact that the influence of the latter tends to be more durable and consistent from election to election. In developed countries long term factors such as party

identification and ideology may influence economic assessments, thus blurring the direct association between economics and electoral outcomes. In fact scholarship critiquing economic theories of voting has noted that one's perception of the economy is influenced by one's political orientation (Evans and Andersen, 2006; Evans and Pickup, 2010). As such, it is politics that causes perceptions in the economy. In developing world the notion of party identification as a long-term, stable indicator is absent due not only to the infant nature of political organizations, but also the electoral volatility present in the political environment. Roberts and Wibbels (1999) trace the presence of electoral volatility in Latin America, noting that the meltdown of party platforms has led to "a volatile situation in which political identities and organizations loyalties are recomposed from one election to the next" (Robert and Wibbels, 575). This then results in the fracturing of the bonds between political parties and social constituencies. Although, concentrating on the explanations of electoral volatility in Latin America, the authors draw parallels with electoral volatility present in the former Soviet bloc territories. In all, the lack of a solid foundation of party identification and a volatile electoral environment, hinder the ability of long-term factors to be substantially influential in developing countries.

Third, many developing countries lack the proper financial capacity and institutional mechanisms to ensure an adequate standard of living for their citizenry, thus resulting in limited social safety nets (Gelineau, 2013). Dani Rodrik (2001) has attributed economic insecurity in Latin America towards the weakening of social insurance institutions in the wake of neoliberal reforms. The fact that developing countries possess greater percentage of poor citizens, makes the citizenry of developing countries demonstrate greater orientation of economic voting (Singer and Gelineau, 2010).

Despite the theoretical optimism of economic voting in the developing world, there are factors that also may impede its presence. Most prominently, the dominance of candidate-centered politics in the developing world combined with the presence of the corruptive voting practices may limit the influence economics may have on the vote function. Instances of voting, based on financial reward has all too often dominated electoral politics in the developing world. For example, voting in the former Soviet republics have been plagued by corruptive practices which includes associates of incumbent parties canvassing for voters who are willing to "trade" their vote for a lump-sum monetary amount. Such practices thus may impede the existence of economic voting.

In addition, voters in developing countries lack the necessary experience with democracy and the overall political process of voting (Fidrmuc, 2000a). The infant democratic nature of developing countries creates weak accountability standards and the inability to cast an economic vote. Voters in developing countries may also lack the sophistication threshold to hold incumbents responsible for economic matters (But see: Benton, 2005). Duch (2001) concludes that individuals possessing low levels of information and trust are less likely to engage in economic voting, while the citizenry with high levels of information and trust are more likely to engage in economic voting. That said, literature on economic voting and the age of democracy is split. While Remmer (1991) finds that age of democracy is not associated with the strength of electoral responsibility to economic conditions, Lewis-Beck and Stegmaier (2009) conclude that CEVT increases with the maturity of democracy.

Developing countries may exhibit "pain tolerance" in which voters may not attribute economic downturns towards the incumbent if it lacks a proper threshold. Indeed Coffey (2013) finds that voters in the Czech Republic demonstrate a level of inflation and unemployment pain tolerance, whereby voters refrain from punishment of the incumbent until inflation reaches thirteen percent and unemployment exceeds eight percent. This speaks volume towards the notion that voters in the developing world may become accustom towards expected economic slumps and fail to readily cast an economic vote, unless there is an unexpected shift in economic indicators.

Finally, there has been substantial work dedicated towards understanding how clarity of responsibility mediates the economic vote (e.g. Powell and Whitten, 1993; Whitten and Palmer, 1999; Royed et al., 2000; Nadeau et al., 2002; Parker-Stephen, 2013). Given that most developing countries contain multiple and complex political parties and alliances, which at times lack a substantial party platform or ideology, voters may be unable to clearly assign responsibility of economic conditions onto the proper incumbent. In other words, if clarity of responsibility is blurred due to complex institutional rules and multiple political parties then economic voting might be limited or simply nonexistent.

To summarize, the verdict is still out on whether the developing world is ripe for economic voting. Optimists note that unlike developed countries which have mature political party systems, thus limiting the role of economics in the voting function, developing countries lack the mature partisan structure. The role of the economy tends to be more salient in developing countries than their developed counterparts due to the fact that the former have witnessed greater levels of economic volatility. These initially

theoretical arguments cast a promising vision, yet despite such heuristics that the presence economic voting may be more salient in developing countries, the infant nature of democracy and complex structure of democratic institutions in such countries may blur the clarity of responsibility that is needed to assign blame and reward by voters. Furthermore, the lack of voter sophistication may further limit the nature of economic voting. All in all, the lack of a clear theoretical promise on the prospects of economic voting in the developing world makes the research a more intriguing case study.

## Is the Even-Handed Approach of Valence Economic Voting Applicable to Developing Countries?

A central tenant of the CEVT is the even-handed approach of punishment and reward. Voters are assumed to reward the incumbent for prosperous economic times and punish the incumbent during recessionary periods in a symmetrical manner. The notion of asymmetric behavior in voting was presented in the American context by the pioneering works of Louis Bean (1940) and Angus Campbell, Philip E. Converse, Warren E. Miller and Donald E. Stokes (1960), and while subsequent works have attempted to empirically test the notion of a symmetric distribution of punishment and reward within the economic voting realm, the overall idea of whether economic voting is asymmetric has largely been neglected. Of the works dedicated to asymmetric economic voting, most have concentrated on developed countries. Scholarship in this area has not been able to settle the question whether economic voting is symmetric (Kiewiet, 1983; Lewis-Beck, 1988) or asymmetric (Bean, 1940; Mueller, 1973; Bloom and Price, 1975; Radcliff, 1994).

An understanding of whether economic voting behavior in developing countries is symmetric or asymmetric is vital to the strength and applicability of CEVT. If voting is symmetric, thus lacking a statistically significant differentiation between economic prosperity and economic downturn, then voters fail to place unequal weight on either positive or negative economic events. If, however, voting is asymmetric, then economic voting in the developing world deviates from the even-handed approach in CEVT. Furthermore, if voting is asymmetric, is it a positive bias or negative bias? A plethora of social psychological research notes that individuals place greater weight on negative events than on positive events (for an exceptional review of the literature on negativity bias see: Rozin and Royzman, 2001). However, the presence of negativity bias is far from being universal (e.g. Matlin and Stang, 1978)

**Overview**

The following study is comprised of six chapters. The second chapter assesses the theoretical foundations of economic voting. Drawing on rational choice theory from economics and democratic theory from political science, economic voting is the byproduct of the fusion of both theoretical frameworks. The chapter traces the theoretical foundations of valence economic voting to VO Key and Anthony Downs, noting that despite popular consensus, the theoretical pillars of classic economic voting lacks completeness. Specifically, the inclusion of prospect theory to economic voting can widen the theoretical scope of the discipline.

The third chapter provides a review of the literature on economic voting with an emphasis on scholarship dedicated towards the developing world. The literature review

divides scholarship on economic voting into three epochs. The first period covers the "methodological infancy period" which lasted from 1920-1970(71) and lacked the methodological depth of econometrics needed to properly model the relationship. The latter moment of the infancy period was dominated by works that provided theoretical assumptions within the economic voting paradigm. The second period, which lasted from 1970 – 1986, was a period dominated by methodological debates. The inclusion of econometric tools allowed scholars of economic voting to widen the methodological spectrum and engage in macro and micro-level analyses. The third-period (1986 – current) gave rise to cross-national assessments of the economic voting, settled the notion of whether economic voting exists in the developed world, and gave way to the application of economic voting in the developing world. From a theoretical perspective, the third period also brought forth various critiques of the main theoretical pillars of CEVT.

Chapter four lays out the methodological framework. The study employs a "hard" methodological dimension[4] including the use of various econometric techniques to gain a proper understanding of how macroeconomic indicators affect the vote for the incumbent party. First, relying on aggregate analyses of the vote function, I employ a multivariate regression in order to assess whether economic voting exists in developing countries, and if so, what economic indicators influence the vote. Second, I rely on individual-level data in order to attempt and establish economic voting at the individual level. Furthermore, I perform a test of asymmetric voting in order to understand whether voters in the

[4] A hard methodological dimension implies the concentration and use of quantitative and econometric statistical techniques aimed at a mathematical interpretation of the particular phenomenon. A soft methodological interpretation focuses on descriptive case studies "that use empirical evidence and logical analysis" (Chilcote 1994, 23).

developing world suffer from the "grievance asymmetry[5]" phenomenon. Using the Latinobarometer and Afrobarometer, I analyze whether individual voters punish and reward in an even-handed manner.

Chapter five provides the results and discussion of macro and micro-level analyses. With regard to the former methodological technique, the results indicate that growth rate has a cross-regional association with the vote for the incumbent. In other words, in a pooled macro-level model of elections, growth rate is the sole economic predictor of incumbent vote. Regionally, growth rate out performs inflation and unemployment. However, both inflation and unemployment seem to be time-dependent variables, in that they influence the vote during a specific moment in time (e.g. inflation during the Latin American debt crisis). At the micro-level, voters assess the economy in a retrospective sociotropic and prospective sociotropic fashion. Despite evidence of both retrospective and prospective dimensions of economic voting, voters in developing countries tend to assume prospective economic evaluations in greater magnitude. This counters CEVT, which assumes a retrospective account of economic voting behavior. With regard to voter asymmetry, while voters do punish and reward incumbent governments, the magnitude of such action differs considerably. Retrospectively, voters dish out more punishment for bad economic times than reward the incumbent for good economic times. However, when voters evaluate the economy prospectively, they tend to reward more than they punish.

[5] First coined by Nanestad and Paldam (1994: 216)

Chapter six summarizes the findings within the greater scope of economic voting. Does economic voting in the developing world adhere to CEVT principles? If not, what are the theoretical tenants of economic voting in the developing world? The answer to the former question is two-fold. While macroeconomic indicators perform in expected fashion, voters in developing countries tend to be more prospective than retrospective. This is partially due to the infant nature of incumbent parties, which theoretically creates prospective voters (Singer and Carlin, 2013). However, as the political platform becomes more stable and party ideology becomes more durable I expect voters to attain retrospective characteristics, thus closely aligning themselves with economic voters in mature democracies.

The thesis widens scope of economic voting in developing countries in several ways. Theoretically, it demonstrates that CEVT is not fully compatible with economic voting in the developing world. The lack of party platform durability and incumbent stability leads voters to assume prospective characteristics in higher probabilities. Furthermore, the paper calls for the inclusion of prospect theory in order to have a "complete" understanding of the economic voter. Methodologically, the thesis demonstrates the prominence of growth rate as a predictor of incumbent vote. Inflation and unemployment are time-dependent and only assume predictability during periods of region-wide economic distress. The thesis also attempts to console the debate on lag structures by demonstrating that lags are feasible during periods of economic stability. The economic voter in the developing world is a sociotropic voter that tends to attain *negativity bias* when assessing the economy retrospectively but assumes a *positivity-bias* when assessing the economy prospectively.

## Chapter 2 – Theoretical Foundation

The theoretical foundation behind economic voting owes its existence to a fusion of the economics-oriented rational theory of choice and the political science-oriented democratic responsibility hypothesis. As such, one may envision the theoretical framework of economic voting as a hybrid of rational choice and democratic theory. Economic voting assumes that if individuals behave rationally in markets, assuming a cost-benefit analysis of events, they also behave in similar fashion making choices among candidates and parties. In order for voters to act in rational fashion, they must have the freedom to do so. This is where democratic theory gains relevance. Reliance on democratic theory, specifically the responsibility hypothesis, has allowed a more complete understanding of valence economic voting.

### From the Marketplace to the Voting Booth: Rational Choice and Economic Voting

The foundations of any scientific theory are its assumptions. Whether rational choice is a theory, a set of theories (Quackenbush, 2004) or a research tradition (Johnson, 1996) is beyond the scope of the paper. Regardless of where one stands on the theoretical applicability of rational choice, there are several key assumptions that its proponents, and critics agree upon. First, rational choice interprets utility maximization as income maximization. In other words, the theory has a strict materialistic interpretation of utility. Second, rational choice theory assumes that individual decision-making takes place under an atmosphere of uncertainty. Third, individuals demonstrate rank-ordered preferences that also assume transitivity. An example of transitivity is when A is preferable to B, B is preferable to C, thus A is preferable to C. Finally, rational choice assumes that

individuals choose a line of action so as to maximize their interests. The totality of such actions takes place within a cost-benefit calculus.

The importation of rational theory of choice from the study of economics occurred during the behavioral revolution by quantitative-oriented social scientists who believed that political science would benefit from the use of rational choice theory. Given the fact that power is a scarce resource, individuals who pursue power would pursue it in a similar fashion as they pursue material utility. Presenting a "coherent and unified theoretical view of politics and economics" (Alt and Shepsle 1990, 1), this theoretical structure aimed at transforming how one approached the study of politics. Political behavior began to be interpreted in utility maximizing terms. Politicians and voters were strategic actors who based their decisions on the expected utility from each and every action.

The influence of rational choice on voting behavior and subsequently economic voting is attributed to Anthony Downs' (1957) *An Economic Theory of Democracy*. Downs presented several assumptions of the voting behavior. First, the rational voter casts his or her vote based on *party differential* under a domain of uncertainty. If voters had perfect information then the rational voter calculus would simply be the difference between the expected utility from the incumbent and the opposition. However, since voters lack the information of the expected utility from the opposition party, they must hypothetically derive the expected utility. By deriving the hypothetical expected utility and subtracting it from the actual utility from the incumbent the voter comes to his or her party differential (Downs, 40). Second, voting in a democratic atmosphere, more often than not, results in information costs outweighing the benefits of voting. As such, the

rational voter may abstain from voting. Since the expected marginal utility from voting in a large election is practically nil, the rational voter abstains. Despite the fact that information costs hinder the prospect of the rational voter, Downs points to several cost-cutting heuristics that the rational voter undertakes. Reliance on ideological cues is perhaps the most important as its logic is directly linked to positional economic voting. As shall be demonstrated below, Downs' "rational voter" perspective laid the groundwork for prospective economic voting.

V.O Key provided the theoretical grounds for retrospective economic voting. In *Politics, Parties, and Pressure Groups (1964)* Key demonstrated that the US electorate behaved in retrospective fashion, thus the vote reflected judgment of the past performance of the incumbent party, rather than the future hypothetical of the opposition. Key's (1966) argument for the rational voter stemmed from the pioneering work, *The American Voter,* in which Campbell et al. (1960) concluded that voters rely heavily on partisan identification, as times unknowingly, on the basis of their vote structure. The argument was a blow to proponents of Downs, who argued that individuals used rational calculus in their vote function. For Key, despite the vast spectrum of individual voter behavior, the electorate as a whole behaved "rationally and responsibly". In short, Key concluded that "voters are not fools" (Key 1966, 7). In assessing the nature of American midterm elections, Key (1964) described the electorate as "a rational god of vengeance and of reward" (Key 1964, 568).

Key's famous passage of voters being "a rational god of vengeance and reward" depicted the theoretical understanding that the electorate was by nature a retrospective protector of democratic accountability through punishment of economic regression and

reward of economic prosperity. Key established the retrospective phenomenon of economic voting. Downs' rational voter was more sophisticated and calculating than Key's, able to compare past incumbent performance with future hypothetical platform of the opposition. Although Downs failed to categorize a vote as either a strictly retrospective or prospective, subsequent literature has attributed prospective economic voting to the Downsian logic.

**Theoretical Assumptions of Valence Economic Voting**

Downs and Key are often attributed to as the theoretical pioneers of economic voting. Key's emphasis on retrospective voting and Downs' prospective, pocketbook-oriented voter created the theoretical backdrop for economic voting literature. The progression of the discipline has recently led to various dimensions of economic voting. Although patrimonial economic voting has assumed that voters base their economic voting decisions on the degree of possession of high and low risk assets, positional economic voting has assumed that voters base their economic vote on ideologically-oriented issues. The most frequently researched and promising field has been valence economic voting. With valence economic voting, the two prominent theoretical assumptions are: (1) incumbency-oriented voting (2) and an even-handed reward-punishment mechanism.

Under valence economic voting, voters assess the role of the economy and orient their action towards the incumbent. If the individual perceives that the economy is in poor shape, the incumbent is punished, but if the economy is viewed as prosperous, the incumbent is rewarded. In other words, valence economic voting hypothesizes that it is

solely the incumbent that is on trial. It also presupposes that voters are solely basing their decision towards the incumbent. This clearly differs in positional economic (or issue-oriented) voting where voters assign action to the political party most close to their issue orientation. Thus, for example, under the incumbency-oriented assumption, it is incumbency-status that determines judgment of a particular political party. However, in positional economic voting, voters target not the incumbent party, but the party "delivering their favored economic policy" (Lewis-Beck and Stegmaier, 2009).

Another theoretical assumption of valence economic voting is the "even-handed" approach towards reward and punishment by voters. Voter punishment and reward is assumed to be symmetrical. This theoretical assumption has been marked by numerous critiques of the even-handed approach. Critics have relied on the negativity bias hypothesis from social psychology to question the fact that voters behave in symmetric fashion. However, evidence that questions the asymmetric effects between reward and punishment has been substantially established in such pioneering works as Kiewiet (1983:49) and Lewis-Beck (1988:79).

**Macro-level**

At the macro-level, valence economic voting presumes that there is a direct association between the vote for the incumbent and macroeconomic indicators. Today, scholars of economic voting acknowledge that such a relationship is also conditioned upon institutional and political contexts among countries. Thus, the reason why economic voting may be more prevalent in the United States and United Kingdom than in Italy is due to the institutional nature of the political system in the respective countries. Such

characteristics as complexity of party coalitions (which are more prevalent in Italy than in United Kingdom) cast a blurring effect over the relationship between economics and incumbent party, thus creating a complexity between macroeconomic conditions and the vote. Since the application of econometrics in economic voting literature, in the early 1970s, scholars have been able to isolate several macroeconomic indicators, that while are unstable, have nonetheless been able to show up in various country studies.

Perhaps the most prominent of such variables is output of goods and services in a particular economy. Output is normally operationalized as either gross national product (GNP) or gross domestic product (GDP). Both GNP and GDP "measure the sum of the market values for all final goods and services produced by the economy in a given period" (Yarbrough and Yarbrough 2000, 558). The year-to-year fluctuations in output are referred to as the growth rate. Growth rate is normally used by economists as a long-term indicator of economic progression (Weil, 2005). The methodological significance of the growth rate in economic voting will be explained in further chapters. However, the theoretical assumption here is that output and growth of output positively affects vote for the incumbent, while reduction in output and growth of output results in vote loss for the incumbent. Growth rate has produced favorable results in past literary works in mature democracies (Fair, 1973; Fair, 1978; Wilkin et al., 1997; Palmer and Whitten, 1999; Singer 2011). Due to the prominence of output as a determinant of economic voting, I hypothesize that:

$$Hypothesis_1: The\ growth\ rate\ will\ be\ positively\ associated\ with\ the\ vote\ percentage\ received\ by\ the\ incumbent\ party$$

A second macroeconomic indicator that is abundant in economic voting research is unemployment. Traditionally, unemployment is defined as the percentage of the labor force that is currently unemployed and seeking employment. Thus it excludes such categories as individuals who are not part of the civilian workforce (e.g. people with medical conditions who are unable to work, institutionalized population, etc) as well as individuals who are underemployed and discouraged from the workforce. Gregory Mankiw defines the latter as "individuals who would like to work but have given up looking for a job" (Mankiw 2004, 197). Such workers are in fact willing to work but are not included as part of the labor pool. Here the theoretical assumption is that increases in the unemployment rate negatively impact the vote for the incumbent, while decreases in the unemployment rate result in incumbent vote gain. Although the theoretical assumption and methodological application of unemployment provides it substantive legitimacy, numerous researchers have critiqued the inclusion of unemployment as an economic measure of the vote. Kramer's (1971) critique of unemployment as a determinant of the vote steams from the fact that during normal levels of unemployment, the unemployed are usually those individuals who tend to be the least politically active, thus having little direct impact on the aggregate vote percentage (Kramer, 139). Furthermore Blount (2002) demonstrates that the measure is an economic as well as a social indicator. Using factor analysis, Blount's results demonstrate that unemployment tends to load more strongly with the same factor as social issues.

On the other hand, unemployment is a unique economic measure due to the fact that it is the statistic that is familiar to most people. Growth rates, GDP and even inflation tend to be an abstract concept for the electorate, while the rate of unemployment is

experienced by many voters who throughout their lifetime may consider themselves unemployed (Conover et al., 1986). Interestingly, research has shown that unemployment tends to impact the lower class more than the upperclass (Hibbs and Vasilatos, 1982; Palmer and Whitten, 2011).

The role of unemployment as a determinant of economic voting in the developing world is mixed. The fact that many less-developed countries have ambiguous unemployment rates casts doubt in the ability to factor the rate of unemployment as an economic determinant of the vote. That said, literature on economic voting in Central and Eastern Europe (CEE) has provided a consensus on the significance of unemployment. However, unemployment in CEE deviates from the assumption in valence economic voting. As shall be described in the next chapter, voters in CEE tend to respond to positional economic voting, as opposed to valence economic voting. Thus, a leftist party benefits, not for its incumbency-status, but for its policy approach. Using Hungary as a case study, Lewis-Beck and Stegmaier (2009) demonstrated that while voters resembled the positional economic voting perspective following end of the Cold War, recent voter behavior has assumed a valence position with leftist parties being punished for high unemployment. In other words, over time, the traditional assumption of leftist parties being more adept at creating low unemployment has eroded and voters assume a classic reward-punishment perspective of incumbent parties. Thus, I hypothesize that

$$Hypothesis_2: the\ rate\ of\ unemployment\ will\ be\ inversely\ associated\ with\ the\ vote\ percentage\ received\ by\ the\ incumbent\ party$$

The third and final macroeconomic indicator associated with economic voting is inflation. Literature on mature democracies has demonstrated that inflation has an inverse relationship with support for the incumbent. In other words, as the level of inflation increases, the incumbent party can expect to be punishment at the polls and vice versa. In the developing world, inflation has been a significant problem in the former Soviet Republics and in Latin America following the debt crisis of 1982. Despite the experience with inflation in the developing world, inflation also tends to have greater impact on the upper class than the lower class (Hibbs and Vasilatos, 1982). This is due to the fact that those with an abundance of monetary instruments are more affected than those with lower levels of income. The abundance of low to middle income earners in the developing may thus limit the influence of inflation as a determinant of the vote. Thus, I hypothesize that

$$Hypothesis_3: the\ rate\ of\ inflation\ will\ be\ inversely\ associated\ with\ the\ vote\ percentage\ received\ by\ the\ incumbent\ party$$

Economic growth, unemployment and inflation are the three prominent macroeconomic indicators used by scholars of economic voting. Although these three variables are perhaps the most widely used in both developed and developing countries, recent studies have began to widen the pool of economic indicators with recent literature experimenting with the stock market (e.g. Fauvelle-Aymar and Stegmaier, 2013) and individual assets such as real estate, bank account and portfolio investment in patrimonial economic voting literature.

**Micro-level**

Valence economic voting takes on several theoretical characteristics at the micro-level. When voters rely on past economic evaluations in order to cast judgment on the incumbent government, they act in a retrospective fashion. Influenced by V.O. Key (1966), voters who act in retrospective fashion engage in the "role of appraiser of past events, past performance and past actions" (Key, 39). The success of the "Keysian" theory stems from the fact that it was applied in Kramer's (1971) seminal work on economic voting, its relative parsimonious nature and the success rate in which it has been applied in numerous studies(e.g. Kramer, 1971[6]; Fiorina, 1981; Kiewiet, 1983 Norpoth, 1996).

The prospective voting model supposes that voters are a concerned with the future economic outlook and thus base their voting decision prospectively on the economic policies expected of the incumbent. This "Downsian" theory largely assumes a more sophisticated assumption of the rational voter by emphasizing the expected voter utility[7]. As opposed to the retrospective voter who might ask, how has the economy performed under *incumbent X*, the prospective voter will anticipate the future economic climate from policies if the incumbent is reelected. MacKuen et al (1992) note that prospective economic voters relate to the rational expectations model (REM). REM notes that voters respond to events when they are anticipated, as opposed to simply waiting until they occur. Although a few studies have successfully tested the hypothesis (MacKuen et al., 1992; 1996; Lockerbie, 1992), prospective economic voting has been less prevalent in the

[6] Though Kramer uses a macro-level methodological framework, he notes that economic voting is essentially retrospective.

[7] Interestingly, one can use Downsian logic to further infer that rational voters tend to be retrospective voters. One of Downs' main arguments is that information has a baring cost. From this logic we can infer that voters attempt to minimize information cost when voting. Compared to prospective voting, retrospective voting requires less sophistication, calculus and information gathering. In other words, a voter only needs to recount the previous tenure of the incumbent and infer judgment.

literature on mature democracies due to the fact that it relies on high levels of voter rationality, including a level of sophistication that accurately forecasts futuristic economic events. Recent research has shed light into the lack of prevalence of prospective economic voting. Michelitch et al (2012) have demonstrated that the presence of prospective economic voting is highly dependent on the "conditional" manner in which the prospective question is being asked in survey studies. Thus, it is measurement error that has prevented a proper understanding of prospective economic voting. The authors conclude that when a prospective question is asked in a conditional manner (i.e. How do you think the economy will perform over the next 12 months, if *candidate X* wins?) then prospective economic voting is a significant predictor of the vote.

Retrospective and Prospective economic voting are not mutually exclusive. In fact, Fiorina (1981) has demonstrated that voters base their prospective judgment on retrospective cues. Furthermore, studies have shown the simultaneous presence of both theoretical assumptions (Miller and Wattenberg, 1985; Clarke and Stewart, 1994). Nadeau and Lewis-Beck (2001) assert that it is the political context that determines whether retrospective or prospective perceptions will be dominant. In presidential elections, when there is an incumbent candidate, voters tend to display retrospective characteristics, due to the fact that the electorate uses a retrospective judgment of the incumbent to assign blame or reward. In the absence of an incumbent candidate, voters tend to engage in prospective behavior.

Based on the theoretical assumptions presented above, I hypothesize that

$$Hypothesis_4: retrospective\ \ economic\ evaluations\ will\ be\ positively\ associated$$

*with the vote intentions for the incumbent.*

$Hypothesis_5$ : *Prospective perceptions will not have a impact on vote intentions for the incumbent*

Another theoretical dimension of micro-level economic voting is that voters are assumed to be either pocketbook or sociotropic voters. Here again we see the influence of Downs. Downs' hypothesized the rational voter, as concerned with one's own utility income, basis his or her voting decision on the maximization that utility income (Downs, 39). As such, for Downs the rational voter is a pocketbook voter. Given that information has a cost-bearing association to the voter, and that sociotropic voting involves greater information costs, it is not only the sole reliance on utility income, but also the increasing cost of information under sociotropic voting, that a Downsian voter will solely be a pocketbook voter. Thus, pocketbook economic voting dictates that voters assess their personal economic wellbeing and base their vote on whether their personal economic situation has progressed or regressed during the incumbents' tenure.

Sociotropic economic voting dictates that voters place emphasis on the wellbeing of the overall, national economy (rather than their personal wellbeing) when assessing the economic situation. Based on the influence of rational choice theory on economic voting, initial hypotheses noted that voters would be egotropic due to the fact that egotropic evaluations demand minimal expertise on political issues and directly relate to the maximization of one's utility function. The application of egotropic economic voting in early studies did not find support (e.g. Kinder and Kiewiet, 1979; Kinder and Kiewiet,

1981)[8]. Further studies have solidified the presence of sociotropic economic voting, although its universality is still inappropriate to assume, given the presence of an outlier: Denmark (Nannestad and Paldam, 1995; 1997a; 1997b; But See Stubager et al., 2014).

$$Hypothesis_6: Sociotropic\ evaluations\ of\ the\ economy\ will\ be\ positively\ associated\ with\ the\ vote\ for\ the\ incumbent.$$

$$Hypothesis_7: pocketbook\ evaluations\ will\ fail\ to\ have\ an\ impact\ on\ the\ vote\ for\ the\ incumbent$$

The mutual exclusivity of pocketbook and sociotropic, and retrospective and prospective evaluations has been challenged by recent scholarship (Clarke and Stewart, 1994; Alvarez and Nagler, 1995; Nadeau and Lewis-Beck, 2001). Such studies have demonstrated that subjective economic evaluations can simultaneously take on a retrospective and prospective approach and a pocketbook and sociotropic approach. That said, CEVT assumes that economic voting takes place within a retrospective mindset with voters using perceptions of the national economy to cast judgment on the incumbent. Thus, the seven hypotheses stated above are the tenants of CEVT and will be applied towards developing countries to see whether CEVT embodies a world-wide pool of economic voting.

**Grievance Asymmetry and the Importation of Prospect Theory towards Economic Voting**

[8] At issue is whether sociotropic economic voting is altruistic. While Lewin (1991) dismisses the notion that a sociotropic economic voter basis his/her vote out of self-interest, recent analysis by Kiewiet and Lewis-Beck (2011) has argued that sociotropic voters act out of self interest.

A central tenant of CEVT is the even-handed approach of punishment and reward. The fact that voters reward and punish "even-handedly" has erroneously been interpreted by the literature as evidence of voter symmetry. When voters punish the incumbent for economic downturns and reward it for periods of economic prosperity, voters may be engaging in reward and punishment "even-handedly", but an even-handed approach doesn't necessarily translate into a symmetric action of punishment and reward. In fact, voters may act in an even-handed manner, but the magnitude of punishment may be greater than the magnitude of reward. In other words, voters may punish more for bad economic times than they reward for a flourishing economy.

Unfortunately, the magnitude of the relationship between punishment and reward has seldom been tested. In cases in which the asymmetry of the vote was assessed, the asymmetry of the vote was defined in a conservative manner. The asymmetry of the vote implied that voters punished the incumbent during economic downturns but failed to reward the incumbent during economic upswings. Such an interpretation of the asymmetry of the vote fails to consider instances where both punishment and reward may be present, but with differing magnitudes. Relaxing the definition of the asymmetry of the vote, this thesis associates the concept with the latter definition.

In order to empirically assess whether the asymmetry of voting exists in the developing context, we need to first have a theoretical structure from which we can associate possible asymmetric effects. Looking at rational choice theory, it becomes evident that the theoretical framework is ill-equipped at explaining asymmetric behavior. In fact, choice theory assumes that the cost of obtaining an item should be similar to the

cost of giving it up. Here we see that choice theory interprets an action in a symmetrical manner. Choice theory also assumes risk-neutrality in decision-making.

In behavioral economics, Kahneman and Tversky's (1979) work critiqued expected utility theory of the rational choice model for its inability to properly account for decision-making within the realm of certainty and uncertainty. The expected utility model stated that preference order lacks change within different probability models. That is, when preference A is preferred to B, the change in the probability mixture of preference A would not change its success rate. Kahneman and Tversky disputed the claim by demonstrating that decision-making changes under conditions of certainty and uncertainty. When faced with certainty, individual decision-making becomes more risk averse. However, when faced with uncertainty individual decision-making becomes more risk seeking (Kahneman and Tversky, 266).

Additionally, Kahnemann and Tversky demonstrated that decision-making was asymmetrical as opposed to symmetrical, with individuals placing emphasis on loss aversion (Kahneman and Tversky, 1991; Tversky and Kahneman, 1992). In other words, the negative impact of losses exceeded the positive impact of gains. The loss-aversion assumption (also referred to as the cost-orientation hypothesis) notes that individuals place more emphasis on avoidance of costs than approachment to gains (Soroka 2006, 373). For Kahnemann and Tversky, when individuals operate within a domain of gains, decision-making becomes more risk-averse. In contrast, decision-making in a domain of losses become more risk-seeking[9].

[9] Rational choice presumes risk aversion independent of the reference point (the reference point being whether an individual is operating under the domain of gains and losses). Prospect theory diverges from

The application of prospect theory in comparative political economy of the developing world was applied by Kurt Weyland's (1996) work on the theoretical behavioral determinants of Latin American presidents during the region's experimentation with neoliberal economics[10]. Weyland attempted to understand why elected leaders enacted shock therapy policies given the fact that such policies risked their political careers. In comparing choice theory with prospect theory, Weyland noted that the latter provided a more concrete explanation of elite policy proposals. According to choice theory, presidents such as Carlos Menem (of Argentina), Fernando Collor (of Brazil), Alberto Fujimori (of Peru) and Carlos Perez (of Venezuela) would refrain from enacting neoliberal policies due to fear of political backlash. However, despite the volatile political and economic climate, and contrary to choice theory, all four leaders went ahead with shock therapy of their respective countries' economy. According to Weyland, Prospect theory provided a more accurate theoretical explanation as to the behavioral traits of Latin American presidents. In facing a domain of losses during the debt crisis, the executives became risk-seeking (thus instituting shock therapy instead of a gradual economic policy).

While Weyland's work concentrated on the analysis of Latin American leaders and voters, the majority of the work was dedicated to the actions of various elites.

---

this assumption by noting that the reference point determines individual behavior. When a individual is operating under a domain of gains he or she will be risk averse, but when under a domain of losses he or she will become risk seeking. (Quattrone and Tversky, 1988).

[10] Biglaiser and DeRouen (2004) expanded on Weyland's application of prospect theory in Latin American by empirically testing for the determinants of the deepening of neoliberal reforms in the face of growing economic disparity. Their model negated both institutional and political explanations and concluded that economic factors, the inflation rate, was a determinant of whether one continues down the shock therapy path of neoliberal reforms. The authors incorporated prospect theory by noting that when faced with a domain of losses (e.g. higher inflation), Latin American leaders would engage in risk-seeking (continue with neoliberal reforms).

Weyland's critique of rational choice theory as a theoretical understanding of Latin American elites and voters can also be applied within the context of economic voting. Historically, economic voting has relied on choice theory to further it claims on the behavioral traits of voters. Initial reliance on choice theory proved unsuccessful with egotropic voting failing to resonate with the U.S. electorate. As early works of economic voting realized the inability of egotropic perceptions to account for voting behavior, scholars revised assumptions of economic voting to demonstrate that sociotropic voting too was a rationally-oriented decision.

Prospect theory potentially offers more coherent explanation of economic voting than its counterpart. Using rational choice theory as an underlying theoretical framework of economic voting would assume that voters not only maximize absolute utility but are also risk-neutral regardless of a reference point. However, in developing countries when voters punish the incumbent under bad economic times and vote for the hypothetical economic policies of the opposition, they are essentially engaging in risk-seeking behavior, in that the hypothetical economic policies are of greater risk than the known policies of the incumbent[11]. Thus, economic voter behavior under an economic downturn exemplifies risk-seeking behavior. The rational choice situation that minimizes risk

[11] Given the infancy and volatility of the party system in the developing world, it is not uncommon to see opposition candidates revert back from their electoral platform and enact policies that staunchly differ from their campaign promises. Notable examples include President Alberto Fujimori of Peru and President Luiz da Siva of Brazil. Fujimori's presidential candidacy promised to scale back on neoliberal reforms. However, upon ascending to the presidency, Fujimori not only reneged on his campaign promises but further implemented neoliberal reforms. In Brazil, candidate de Silva emphasized the fight against poverty and highlighted that the poverty-stricken poor would be given top priority in his administration (Smith, 2005). However, as president, de Silva's administration pushed for greater foreign investment in Brazil, advanced Brazil's role in the BRICS, and rejuvenated the domestic capital structure in Brazil. His campaign promise of eradicating the *favelas* was simply abandoned in favor of state-led economic development. Thus, due to the volatile party systems in the developing world (which tend to be candidate-centered and lack a durable party platform) voting for the opposition's hypothetical economic policies is the riskier approach.

would be to stick with the known policies of the incumbent, rather than risk the implementation of the unknown policies of the opposition. This parallels Weyland's account of the behavior traits of Latin American presidents. The rational choice model noted that elites would stay the course of gradual development, while the prospect theory-oriented model noted that elites would institute shock therapy, despite negative voter reaction. Thus, by not staying the course with the incumbent and instead punishing him or her in favor of the hypothetical and more risky policies of the opposition, voter behavior traits within a domain of losses is evidenced by risk-seeking.

Prospect theory is also better apt at describing the magnitude of asymmetry in reward-punishment mechanism of valence economic voting. Through the cost-oriented assumption, prospect theory assumes that greater weight on decision-making is placed when voters operate within a domain of losses than in the domain of gains. This essentially provides the theoretical backdrop of inferring voting asymmetry. If, according to prospect theory, individuals place greater weight in domain of losses than they do on domain of gains then decision-making under the domain of losses outweighs decision-making under the domain of gains. Paralleling domain of losses to economic downturns and domain of gain to economic upswings, I propose that the magnitude of economic voting is not only asymmetrical but demonstrates greater weight in bad economic times, as opposed to good ones.

Prospect theory demonstrates not only a alternative account of the reward-punishment mechanism, but also provides the theoretical structures to infer an asymmetric relationship between punishment and reward. If voters are found to behave in

asymmetric manners, then by default rational choice theory becomes ill-equipped at explaining voter asymmetry.

Importing the cost-oriented assumption of economic voting to decision-making within a voting booth, I hypothesize that

$$Hypothesis_8: when\ voters\ perceive\ they\ are\ faced\ with\ economic\ downturns\ (domain\ of\ losses),$$

$$they\ will\ punish\ the\ incumbent\ in\ greater\ magnitude\ than\ they\ reward\ the\ incumbent$$

$$when\ they\ perceive\ economic\ prosperity\ (domain\ of\ gains)$$

In other words, voters will demonstrate a *negativity bias* when engaging in economic voting.

**Conclusion**

In summary, the tenants of CEVT have been strictly influenced by case studies involving developed countries. In outlining the theoretical constructs (the hypotheses) of CEVT, the chapter laid out the seven hypotheses that will be tested against a cross-national pool of developing countries in order to understand whether the developed country-influenced CEVT is a proper starting-point for understanding economic voting in the developing world.

In the second part of the chapter, I proposed a shift away from rational theory of choice as the underlying foundation of economic voter behavior, and a pivot towards prospect theory. Simply stated, rational theory of choice fails to account for the reference point within which voters operate. It erroneously presumes that economic voting within a risk-neutral mindset. Prospect theory provides a different starting point for assessing

economic voting. It assumes that decision-making is contingent upon a reference point. It also is apt with explaining potential asymmetrical patterns of economic voting behavior. Reliance on prospect theory as a revised starting-point for understanding the reward-punishment mechanism provides an alternative understanding of dichotomous domains in which reward and punishment are distributed. Additionally, it also provides a theoretical reasoning for potential voter asymmetry.

## Chapter 3 – Literature Review

As previously mentioned, in the past couple of decades scholarly attention on economic voting has expanded to several hundred works. And while an overwhelming majority of the scholarship has focused on developed states, works on developing countries have been gradually growing. A comprehensive discussion of the voluminous scholarship in the field is beyond the scope of the research. Instead, the following chapter aims to provide a chronological timeline of the evolution of the research on economic voting by dividing the literature into three distinct, methodologically-oriented epochs, in order to gain a proper understanding of the transitional waves of economic voting scholarship. After a description of the three distinct epochs, the chapter will then address past research on the developing world by examining the following regions: Latin America, Africa, Central and Eastern Europe and Asia. Although the works on the developing world have increased in size, they still dwarf the ink that has been spilled on mature democracies.

### Methodological Infancy Stage (1920s - 1970)

The sociological discipline had an impact on the development of the relationship between economics and elections. Sociologists had attempted to find a correlation between the business cycle and specific social conditions. Influenced by William Ogburn and Dorothy Thomas' (1922) work on the association between economics and social changes, Stuart Rice (1928) set out to assess whether economics (more specifically, the business cycle) had an impact on politics. Rice found that changes in the business cycle led to changes in the popularity of the Republican Party (Rice, 292). His analysis was limited to the state of New Jersey and the methodology was a simple correlation between

time series. Clark Tibbits (1931) replicated Rice's theoretical approach at the national level with research on elections in the House of Representatives. Tibbits concerned himself with whether business conditions were associated with the popularity of political parties during election years. Using the Harvard curve of business activity (1875-1902), and limiting his analysis to nine "industrial" states[12], Tibbits found a correlation between the prosperity of the business cycle and proportion of votes received by the incumbent party. This led Tibbits to conclude that "judging from these data, the party in power is justified in anticipating victory when an election follows a period of business expansion, and is rightly apprehensive when the election falls in a depression year" (Tibbits, 603).

Louis Bean's (1940) *Ballot Behavior* expanded on the relationship between economics and elections. Bean demonstrated that since 1854 the incumbent party in Congress had lost membership seventy-nine percent of the time when a recession preceded elections. However, economics failed to have the expected impact on Congressional elections during presidential election years as economic distress actually resulted in the majority party gaining seats. Perhaps the most significant finding of Bean's work was the asymmetric relationship between economics and elections. Bean concluded that while economic decline hurt the Democratic Party, economic prosperity (a rise in business) failed to bring the Democrats electoral reward. The economic voting asymmetry interpretation that was noted by Bean would go on to be neglected for another three decades until it would be rejuvenated in an extensive methodological manner by Mueller (1970), and Bloom and Price (1975).

[12] In order for Tibbits to "secure a homogeneity of election issues" he limited his study to nine industrial states with a sample size of ninty-four

Lastly, in 1948 F.A. Pearson and W.I. Myers looked at the relationship between rising prices and presidential voting. For Pearson and Myers the decline of prices represented the decline of economic welfare in the citizenry, while rising prices brought economic prosperity. Interestingly, authors interpreted the period 1896 to 1928 as one where the rise of prices brought economic prosperity. The authors observed periods of inflation as the result of growth, thus assigning a positive association between inflation and presidential success at the polls. Using the level of prices and party identification of the presidency, Pearson and Myers concluded that high prices were correlated with Republican control of the White House between 1896 and 1928. Following the Great Depression, the reign of Franklin Roosevelt and Harry S. Truman were marked by high prices. This led Pearson and Myers to conclude that low prices hurt incumbent presidents while high prices helped them.

The theoretical pillars of economic voting began to coalesce with three particular works: Campbell et al.'s *The American Voter* (1960), Anthony Downs' *An Economic Theory of Democracy* (1956) and V.O Key's *Politics, Parties, and Pressure Groups (1942)* and *The Responsible Electorate (1966)*. Campbell et al.'s work provided exceptional theoretical pillars to the study of economic voting. Above all, Campbell et al initiated the distinction between what today is referred to as pocketbook and sociotropic economic evaluations. Although limited to the 1956 election, one of the major takeaways from the book was that those who evaluated the economy through optimistic lenses were more likely to vote for the incumbent. Despite providing evidence of economic voting, the book largely attributed the economic vote to political attitudes: "Partisanship drove both groups of Democrats (those not hurt as well as those hurt) to criticism and pushed

both groups of Republicans (those not hurt as well as those hurt) into positions of support (Campbell et al., 1960:389). While the authors strengthened the pillars of economic voting theory, they also refined the theory by noting that the economic vote was simply a reflection of partisan identification. The "endogeneity" issue would continue to be neglected until the third methodological stage[13].

Anthony Downs' (1956) work on the theoretical assumptions of the rational voter provided further description on the notion of retrospective and prospective voting. Downs' theory became the foundations of prospective economic voting. In fact, in Fiorina's seminal work on economic voting, the author referred to Downs as the theorist behind the idea of prospective voting. What Downs was to prospective economic voting, Key was to retrospective economic voting. Of the three theoretical pioneers, Key provided the lengthiest description of the pillars of economic voting, including, the rationality behind economic voting, retrospective economic voting, the notion of reward/punishment mechanism and the incumbent-oriented hypothesis.

The scholarship on economic voting during the infancy period lacked a rigorous methodological foundation, due to the fact that advanced econometric tools were not widely available. While Tibbits relied on cross-sectional data, Bean and Pearson and Myers favored longitudinal data. Their works lacked sophisticated econometric tools aimed at assessing the role of economics in electoral decision-making. What the infancy staged lacked methodologically, it made up for it theoretically. The works of Campbell et al., Downs and Key provided the necessary description for various theoretical constructs

[13] The issue of endogeneity in economic voting stems from the fact that voter perceptions about the economy is simply a result of their political identification. In this sense the causality arrow is from political attribution to economic perceptions.

to take-off. Despite progression in theory, literature on economic voting lacked a sizable attention. It wasn't until the "behavioral revolution" that research on economic voting began to expand.

**Methodological Innovation Stage (1970 – 1986)**

The behavioral revolution, which in the late 1960s began importing econometric modeling from economics, made its way to economic voting with three pioneering works. Goodhart and Bhansali's (1970) study on the popularity of British political parties and party leaders brought forth the relevance of economic indicators as factors influencing the popularity of political parties and leaders. Using various statistical techniques, Goodhart and Bhansali were able to demonstrate that political popularity is dependent upon such economic indicators as inflation and unemployment. Furthermore, the authors were able to establish that the conservative Torrey Party was more sensitive to changes in economic conditions than the liberal Labour Party.

John Mueller's (1970) work addressed the popularity of U.S presidents in the post-1945 era. Relying on Gallup polling and multiple regression analysis, Mueller tested the popularity of an incumbent president on several explanatory variables, including coalition of minorities effect, rally around the flag effect, economic slump and the war effect. Mueller operationalized economic slump with the unemployment rate. Specifically, he subtracted the effects of the unemployment rate at the beginning of the incumbent's term from the unemployment rate at the time the poll was taken to create a unique unemployment indicator. With regard to economic voting, Mueller found that for each percentage point increase in the unemployment rate from the time the incumbent

took office, presidential popularity decreased about three percentage points (Mueller, 28). That said, when the unemployment rate increased, the popularity of the president failed to positively correspond to the increase. Thus, in the case of economic voting, Mueller concluded that voters punished but failed to reward[14].

The third (and most cited) pioneering work that set the stage for a plethora of economic voting literature was Gerald Kramer's (1971) study on Congressional voting behavior in the United States. Kramer critiqued past economic voting literature for its simplistic statistical modeling (Kramer, 133). Kramer instituted a macro-level multivariate analysis of congressional voting based on various economic indicators. The findings suggested that a ten percent decrease in real income per capita cost the incumbent party between four to five percentage points of the vote.

Kramer's substantive findings resulted in both a successful replication (e.g. Fair, 1973) and negation (e.g. Stigler, 1973) of his methodology. George Stigler critiqued Kramer's work for its omission of periods of war in his model and Kramer's inability to address problematic multicollinearity. Stigler pointed out that once omitted years were included in the study, the model was no longer statistically significant. Furthermore, Stigler demonstrated that different forms of measurement of economic indicators (absolute versus percentage change) resulted in different results. The association between the economy and the incumbent party led scholars to question whether the incumbent party could control economic indicators prior to elections for its economic benefit? Arcelus and Meltzer's (1975) findings negated the idea that incumbent presidents helped

[14] Methodologically Mueller's work was refuted by Hibbs (1973) who demonstrated that Mueller's case suffered from serial autocorrelation. Thus, the so-called economic slump effect "is a spurious artifact of autocorrelation" (Hibbs Jr., 288). After controlling for autocorrelation Mueller's economic slump indicator and argument is refuted.

their party ticket increase support for in-party candidates by reducing unemployment or increasing growth of real income.

These three pioneering works became the backdrop for future economic voting research. In fact, the so-called voter-popularity, or VP function gained its framework from the three studies. The VP function, as theorized by Martin Paldam (1981), derived its acronym from the vote function and the popularity function. According to Paldam, the vote function is a function that explains election results, while a popularity function is a function that explains the results of a popularity poll. Given the fact that the two functions are closely related, Paldam termed them the "VP function" for essentially explaining short-run dynamics of the economy. The three works also differentiated in terms of the methodological analysis used. While Goodhard and Bhansali (1970) and Mueller (1970) relied on micro-level survey analysis, Kramer's work (1971) resorted towards aggregate level voter and economic analysis. The different methodological approaches created a much needed debate as to what was the proper level of measurement of economic voting.

Initial scholarship sided with Kramer as works began to rely on aggregate-level indicators. In 1978, Morris Fiorina attempted to use microlevel analysis to demonstrate economic voting in both Congressional and Presidential elections. Using the Michigan Survey Research Center (SRC) Survey, Fiorina overall found little support for retrospective voting in the United States. While Presidential elections demonstrated some evidence of economic retrospective voting, inquiry in congressional elections and congressional midterms found little or no support for economic retrospective voting.

Despite Fiorina's mediocre results, his work shifted the methodological tide towards micro-level economic voting.

Klorman's (1978) work expanded micro-level analysis towards pocketbook and sociotropic evaluations. Theoretically, homo-economicus is a person whose sole concern is the maximization of his or her utility curve. Furthermore, since information is costly, voters are assumed to be pocketbook-oriented, since pocketbook voting required minimal political and economic expertise. As such, it was probable to suspect that the rational voter was a pocketbook voter. Such was the underlying theoretical assumption prior to empirical tests of the pocketbook voter. Using data from the CPS/SRC national election studies (1956-1974), Klorman demonstrated that personal finances (pocketbook) had a negligible effect on the vote[15]. Kinder and Kiewiet's (1979; 1981) works further deepened scholarship towards the dismissal of pocketbook voting, and demonstrated that contrary to the theoretical assumption, voters were sociotropic voters (but see: Kuklinski and West, 1981).

Despite the not so promising results of microlevel analysis, survey-oriented research progressed with sociotropic voting. The question that arose from the wave of micro-level research was why, contrary to theoretical assumptions, pocketbook voting lacked in U.S. economic voting literature. Several scholars (Kinder and Kiewiet, 1979; Lewis-Beck, 1983) noted that the lack of pocketbook voting in the American polity was due to the individualist nature of the American "culture". The presence of a strong sense of individualism within American voters leads the electorate to place blame within

[15] In the elections of 1964, 1966 and 1974, Klorman demonstrates that those whose financial situation worsened either matched the incumbent support of those whose situation had improved, or exceeded them.

themselves, instead of the incumbent party, for their personal economic misfortune. This self-blame attitude leads the American electorate to forego the connection between personal economic grievances and the incumbent government.

The second methodological stage also included works attempting to understand the asymmetrical relationship between economics and the vote[16]. Bloom and Price's (1973) work reinterpreted the notion of asymmetry of voting to include cases where both punishment and reward were present, though the magnitude was asymmetric[17]. Regressing the percentage change in real per capita income in the year preceding the election on the Republican share of the vote in the House of Representatives, Bloom and Price noted that while voters punished incumbent parties for economic downturns, economic prosperity failed to produce voter reward. Bloom and Price's conclusion of punishment but no reward sparked a theoretical and methodological debate with regard to asymmetry of the vote. The theoretical assumption within the asymmetry of the vote revolved around the saliency of the economy. It was noted that the economy mattered more during times of crisis. As such, based on the time periods when the economy would become salient, punishment would outweigh reward.

[16] The asymmetry of voting derives its theoretical structure from the school of social psychology. Nehemiah Jordan's (1965) review of literature on the asymmetry of positive and negative events noted that within the individual thought process, existed an asymmetrical scale between positive and negative events. Feldman's (1966) research on the asymmetry of individual description found that negative adjectives outweigh positive adjectives. By 1970, scholarship in social psychology had established the presence of a "negativity bias" in various events and characterizations (Kanouse and Hanson Jr., 1972). John Mueller's (1970; 1973) work on presidential popularity and asymmetrical evaluations was the first quantitatively-oriented work on presidential popularity and evaluation asymmetry. Mueller attempted to identify the determinants of presidential popularity, using among others, an economic slump indicator. Mueller operationalized it as the rate of unemployment. The results suggested that while a sluggish economy harmed presidential popularity, an improving economy failed to boost the president's ratings. The verdict was clear: voters dished out punishment during an economic regression but failed to reward the president during periods of economic prosperity.

[17] Mueller's analysis of the asymmetry of voting demonstrated a case where there was punishment but no reward. Bloom and Price expanded the scope of the concept to include instances where both punishment and reward exist, but the degree of punishment outweighs reward

Samuel Kernell's (1977) thesis on negative voting critiqued the "surge and decline" model for its inability to resonate with the data on election turnout. Kernell applied an alternative theoretical approach towards modeling midterm elections. The notion of negative voting assumed that voters voted against something, not for it (Kernell, 51). Testing a set of four hypotheses on the idea that negativity reinforces voter behavior, Kernell demonstrated disapproval of the president resulted in greater tendency to act than approval. In all, Kernell concluded that the effects of presidential approval and disapproval were asymmetric.

Steven Rosenstone (1982) expanded the theoretical foundation of asymmetry of voting by describing three forms of response during economic adversity. Economic adversity either produced mobilization, withdrawal, or no effect. The mobilization perspective noted that economic adversity led voters to mobilize thus dishing out punishment in greater numbers. On the other hand, withdrawal signaled a reduction in voter capacity to participate in elections during economic adversity. The withdrawal syndrome was a clear negation of the so-called "grievance asymmetry hypothesis" and corresponded with a positive bias of voting (as in reward but no punishment). Rosenstone found that voters in 1974 exhibited the withdrawal syndrome. In other words, contrary to Mueller's, Bloom and Price's, and even Kernell's findings, Rosenstone concluded that voters who were worse off financially were less likely to vote.

By the end of the 1970s, the economic voting disciple began witnessing its first methodological debate between applications of macro-level versus micro-level analyses. Kramer's (1983) critique of micro-level analysis provided the necessary evidence as to why the majority of scholarship on economic voting was oriented towards macro-level

analysis. Kramer suggested that micro-level studies were inherently unstable (e.g. Fiorina, 1978) and suffered from measurement error and response bias. Furthermore, subjective assessment of macroeconomic conditions based on retrospective judgments was "either partisan rationalization or perpetual noise" (Conover et al., 1986). Thus, individual-level analysis lacked the proper methodological mechanisms to propose stable inferences. Kramer's critique of micro-level analysis was countered by Kiewiet and Rivers (1984) critique of the use of aggregate methodology. Kiewiet and Rivers noted that macro-level methodology suffered from either a short time series or "the data extend over a period of time so long that the stability of the regression function becomes questionable" (Kiewiet and Rivers, 372).

The methodological debate provided an unprecedented wave of scholarship on economic voting. Despite the growth of the research program, scholarship within the second methodological stage solely addressed economic voting in advanced industrial societies. While the overwhelming majority of initial studies were aimed towards the United States and Britain, by the 1980s studies on France (e.g. Lewis-Beck, 1980; Hibbs Jr. and Vasilatos, 1981; Lewis-Beck and Bellucci, 1982; Lewis-Beck, 1983; Lafay, 1984), Italy (e.g. Lewis-Beck and Bellucci, 1982), and Japan (e.g. Reed and Brunk, 1984) began appearing. The widening of the scope of cases led to the ability to deviate from single-country studies and perform cross-national observations.

**Methodological Progression Stage (1986 – Current)**

By the end of the 1980s the state of the scholarship on economic voting was "methodologically troubling" (Powell Jr. 1987, 256). At issue was the inconsistency

between macro and micro-level findings[18], the inability of social scientists to fuse the two methods, issues of endogeneity in micro-level models, and instability of economic coefficients across time. Moreover, the overwhelming majority of the works had been single case studies concentrating on the Western world. The third methodological stage, though unable to solve the micro-macro divide, expanded the scope of study by attempting cross-national studies of economic voting. The results demonstrated the inconsistency of economic voting across time and nations.

Lewis-Beck's (1986) comparative study of economic voting in Europe set the stage for cross-national works. Using the Eurobarometer survey, Lewis-Beck demonstrated that while economic voting was present in Britain, France, Germany, and Italy, the degree of strength differed substantially between countries. While Britain displayed the strongest degree of economic voting, Italy had the lowest. Although Lewis-Beck's cross-sectional study was a snapshot of the influence of economics, the questions asked by him set the stage for an explanation as to why the degree of economic voting differed country by country. Paldam's (1991) cross-national study on seventeen mature democracies further cast criticism on the instability of the VP function across countries and time periods. Concluding that only a handful of countries and time periods demonstrated economic voting, Paldam's work casted a doubt on the universality of CEVT and rejuvenated the theoretical debate of economic voting.

[18] Kramer's critique of micro-level modeling also steamed from the fact that such an approach tended to be (1) cross-sectional, thus unwilling to be generalizable across time and (2) the subjective nature of the sociotropic variable which led it to be influenced by exogenous variables. Gregory Markus (1988; 1992) addressed the "Kramer issue" by including national economic evaluations within individual-level vote functions and using a pooled cross sectional data.

The increased inconsistency of cross-national studies led Powell and Whitten (1993) to coin the concept "clarity of responsibility." Building on the notion that cross-national analyses of economic voting were plagued by inconsistent results, Powell and Whitten suggested that the instable resulting across countries was due to the differing electoral context. Thus, the linkage of voter punishment or reward with the incumbent government was mediated by the electoral context. "The greater the perceived unified control of policymaking by incumbent government, the more likely is a citizen to assign responsibility" (Powell and Whitten, 398). The authors noted that a bicameral opposition, minority government and a coalition government were all variables that negatively affected the clarity of responsibility and thus blurred the relationship between economics and incumbent responsibility. Creating an index of clarity of responsibility, the authors divided countries between high clarity of responsibility and low clarity of responsibility. Subsequent research proved the vital aspect of clarity of responsibility (Whitten and Palmer, 1999). Powell and Whitten's theoretical framework, while providing a new avenue of economic voting, assumed that voters were knowledgeable and thus could properly identify whether a party was part of a coalition and more importantly the assignment of committee chairmanships in parliament (Tucker, 2001). Although critiques of Powell and Whitten's hypothesis has casted doubt on the significance of the political context (Royed et al., 2000; Hellwig and Samuels, 2008; but see Palmer and Whitten, 2003), the central theorem of the mediating relationship between economics and the vote has gathered general consensus.

With regard to the asymmetry of the vote, the third methodological stage continued to quantitatively assess whether the asymmetrical results of Bloom and Price

could be replicated and broadened in different contexts. Clagget's (1986) work furthered the proposition of negative bias by successfully replicating Bloom and Price's hypothesis by widening the scope of observation from 1872-1982. However, a study on the British electorate negated Bloom and Price's notion of economic voting asymmetry (Headrick and Lanoue, 1991). Additionally, Kernell's thesis was also subject to replication. While critics centered on methodological issues (e.g. Gant and Davis, 1984; Born, 1990), proponents successfully replicated (e.g. Lau, 1982; 1985) and revised (Fiorina and Shepsle, 1989) Kernell's notion of "negative voting." Importing Rosenstone's theoretical framework, Radcliff (1992) found a distinction between voter reaction in developed and developing countries. While the former exhibited withdrawal symptoms, the latter demonstrated symptoms of mobilization. Thus, one would assume the notion of grievance asymmetry to be evident in the developing country studies (Indeed, in a later work by Pacek and Radcliff (1995), the authors found that exact mobilization effect in the developing world)[19].

Since the inception of the four pioneering works on the asymmetry of voting, scholarship has lacked a definitive account of whether voters behave in asymmetric fashion and whether such behavior is predominantly negative and rooted in economic perceptions. Lewis-Beck's *Economics and Elections (1988)* debunked the grievance asymmetry hypothesis by demonstrating its absence at the microlevel. In fact, from Lewis-Beck's output one could infer that voters may actually be positive biased. Further proof of positive bias was provided by Radcliff (1994) in US presidential elections.

[19] Mobilization of the electorate during economic downturns in the developing world was also noted by Aguilar and Pacek (2000) who found that a declining economy increases voter turnout for working-class/economically disadvantaged (WCED) parties.

While both Lewis-Beck and Radcliff critiqued the application of grievance asymmetry, Nannestad and Paldam (1997) work on grievance asymmetry within the Danish electorate[20] rejuvenated the hypothesis.

Unfortunately, grievance asymmetry has not been prone to the level of scholarly attention since Nannestad and Paldam's work. Despite a call on further research by scholars of economic voting (Nezi, 2012), the subject matter has largely been neglected. This is an unsettling manner, given the fact that prior literature has been unable to quintessentially establish a general consensus on the presence of asymmetric voting and the conditions that mediate it. Scholarship has presented the theoretical grounds for grievance asymmetry. If the economy matters only when it is salient (Singer, 2011; Singer, 2013), or during times of economic volatility, then economic voting will be more prominent during recessionary periods. As such, there will be greater magnitude of punishment than reward.

The third methodological stage also brought forth a wave of CEVT critiques. Although works which critiqued the application of CEVT had existed in the past (e.g. Norpoth and Yantek, 1983), their scope was limited to producing null results. In the third methodological wave, critiques of CEVT appeared both theoretically and methodologically. Theoretically, scholarship critiqued the reductionist view of the theory due to the fact that CEVT had taken on a retrospective-oriented application and neglected the possibility of asymmetry of the vote (Wilkin et al., 1997). Methodologically, criticism was aimed at CEVT for the fact that economic evaluations were marked by subjective

[20] Interestingly, the Danish electorate may be the ultimate outlier of economic voting. It has consistently demonstrated a pocketbook-oriented approach, contrary to an overwhelming amount of literature proving the superiority of sociotropic evaluations. Additionally, the fact that the Danish electorate exhibited patterns of grievance asymmetry only increases the marginalization of economic voting in Denmark.

(instead of objective) factors, which produced systematic variations across cases (Duch et al., 2000), and the causal chain of events economic voting presumed (Evans and Andersen, 2006; Evans and Pickup, 2010; Palmer and Whitten, 2011). The latter criticized CEVT for its presumption that economic evaluations caused political evaluations. Observing the British electorate, Evans and Andersen found that sociotropic economic evaluations were influenced by partisan identification. Furthermore, party ID systematically influenced economic perceptions (But see: Lewis-Beck, 2006).

The overwhelming evidence of economic voting in mature democracies led scholars to draw parallels with countries in the developing world. Pacek and Radcliff (1995) set out to apply Kramer's methodology to eight developing countries. Despite a sample size of only fifty-two elections, Pacek and Radcliff found that economic voting in the developing world failed to fit the classic reward-punishment model, evident in mature democracies. Specifically, voters punished the incumbent for economic downturns but failed to reward them during prosperous economic times. The results forced Pacek and Radcliff to conclude that the notion of grievance asymmetry was indeed an issue with developing countries. Anderson et al. (2003) used a micro-level approach to model economic perceptions on political support. Critiquing the use of "western" survey research models, the authors negated the use of party identification, ideology, social and cultural issues, by simply testing economic evaluations with the inclusion of a "satisfaction with revolution" indicator. Basing the study off of the 1990 Nicaraguan presidential elections and the 1994 Hungarian parliamentary elections, they concluded that voters in both countries exhibited both retrospective and prospective evaluations, but that the former explained a larger percentage of the vote than the latter. Gelineau's (2013)

comprehensive study of economic voting at the micro-level incorporated all the "barometer" datasets in order to assess the degree of economic perceptions on presidential popularity. The author concluded that "in the vast majority of cases, it appears that economic assessments are directly linked to incumbent support" (Gelineau, 421).

The Great Recession rejuvenated scholarship on economic voting with empirical tests once again concentrating on mature democracies, despite the fact that developing countries faced the brunt of the crisis. Anderson and Hecht (2012) used the German 2009 legislative election to assess the role of the economy on the vote during the economic crisis. Ironically, the authors found that the global economic turmoil produced limited effects of economic voting in Germany. The authors concluded that this was due to the fact that the German electorate assessed the crisis as an exogenous shock and thus failed to blame the incumbent coalition government. Freire and Santana-Pereira (2012) found similar results with 2009 Portuguese elections, one in which the role of the economy failed to get prominence due to the exogenous nature of the crisis. Nezi (2012) observed economic voting in Greece and found a relationship between retrospective, sociotropic perceptions and the vote for the incumbent. Martinsson's observation of economic voting in Sweden found that amidst the global recession, "no significant punishment" was dished out by Swedish voters (Martinsson, 474). Ultimately, the wave of scholarship that followed the great recession proved the instability of economic voting. While in some areas economics heightened the impact on the vote, in other areas it did not.

The theoretical and methodological application of valence economic voting is largely settled in developed countries. Recent works in mature democracies has either

ventured into patrimonial and positional economic voting or have attempted to gain a "complete" understanding of economic voting by empirically assessing the relationship within a valence, patrimonial and positional theoretical setting (e.g. Nadeau et al., 2011; Lewis-Beck and Nadeau, 2012; Lewis-Beck et al., 2012, Clarke and Whitten, 2013; Fraile and Lewis-Beck, 2013). The "methodological progression stage" expanded scholarly attention towards developing countries. Despite an increased share of research, scholarship on developing countries lacks a proper non-western theoretical framework, a proper methodological approach and a historical assessment of the applicability of economic voting in certain electoral settings. Through a review of the literature on economic voting in the developing world, I will demonstrate why the western theoretical framework of the economic voter (as envisioned by CEVT) is not necessarily applicable to the developing country context.

**Economic Voting in Developing Countries**

Scholarship on developing countries has dwarfed its developed-country counterpart. Although recent research has picked up in the developing world, it is by no means equally distributed across regions. The overwhelming majority of the works have concentrated on Latin American and Central and Eastern Europe, with only a fraction of works addressing economic voting in Africa and Asia. The common excuse has much to do with data availability, both in macro and micro terms. While the scarcity of macroeconomic data can be a warranted excuse, surveys such as the Afrobarometer and the Asianbarometer have provided the necessary tools to properly understand the economic voter.

### Latin America

Historically single country case studies have dominated scholarship in Latin America with Peru being the most abundant country study. The skewness of research towards Peru is due to the fact that the country provides academics with an opportunity to test the effect of political violence in economic voting models. The consistent implementation of neoliberal programs by subsequent presidents, combined with the political threat presented by the "shining path" has resulted in a bundle of scholarship aimed at understanding the predictors of presidential popularity (e.g. Stokes, 1996; Weyland, 2000; Kelly, 2003; Arce, 2003). Research on economic voting in Peru has predominately taken a micro-level methodological approach due to the specific interests in the relationship between economics, political violence and presidential popularity. The results however have lacked a consistent economic determinant of the vote. Stokes (1996) found that higher inflation decreased support for both neoliberal reform and President Fujimori, while higher unemployment actually increased support for the incumbent (Stokes, 559-561). Weyland (2000) concluded that the growth rate had a significant effect on the popularity of the incumbent. Perhaps more important is the fact that political violence lacked statistical significance on presidential popularity. Kelly (2003) found that Peruvians were prospective voters who failed to associate GDP and inflation with presidential popularity, Arce (2003) concluded that higher inflation and unemployment decreased presidential popularity.

Similar to Peru, economic voting literature in Venezuela also has concentrated on the popularity of the executive (e.g. Weyland, 1998; Weyland, 2003; Nadeau et al., 2013). Weyland's (1998) application of the peasant and banker analogy (See: MacKuen

et al., 1992) in Venezuela demonstrated that during the tenure of President Perez, Venezuelans were prospective and pocketbook voters. Upon the ascendance of power by Hugo Chavez, Weyland's (2003) follow-up piece concluded that while voters maintained the prospective orientation, though they now assumed a sociotropic characteristic. Perhaps more important was Weyland's critique of CEVT for failing to account for psychological processes of the electorate. Weyland demonstrated that economic discontent created an atmosphere of electoral withdrawal, resulted in those unhappy with the economy to refrain from voting (See: Radcliff, 1994). Weyland's prospective Venezuelan economic voter was challenged by Nadeau et al. (2013) findings which concluded that once accounting for party identification and other long-term factors, voters demonstrated a retrospective orientation. Contrary to the Michigan model, the authors concluded that voter support for Chavez relied more on short-term factors than long-term factors.

Economic voting in Mexico provides an interesting case study due to the longevity of the *Partido Revolucionario Institucional* (PRI)[21]. Brophy-Baermann (1994) study on the relationship between macroeconomic indicators and the vote for leftist opposition parties found that voters in Mexico are policy-oriented, rather than incumbency-oriented. Brophy-Baermann concludes that "what we see in Mexico is not a simple case of punishing the incumbent by voting for the out parties. Rather, we see that anti-incumbent voting has a heavy policy component in favor of the left" (Brophy-Baermann, 132). Buendia's (1996) work reached a different conclusion by noting that

[21] The PRI held power in Mexico since 1929 and until 2000 when the ascendance of National Action Party's (PAN) Vincente Fox marked the first time in seventy-one years that political power in Mexico that PRI descended from the role of government

Mexican voters resemble the classic reward-punishment mechanism of CEVT. Regressing economic indicators on presidential approval, Buendia found that when inflation and unemployment rose, voters were less likely to support the incumbent, President Salinas. In terms of subjective economic evaluations, Dominguez and McCann (1995) concluded that voters in the 1988 election demonstrated prospective and pocketbook economic perceptions. Germano's (2013) work has demonstrated that economic voting in conditioned upon remittance. In other words, those who receive remittances are less likely to hold the incumbent responsible and engage in economic voting.

As shown above, single country studies in Latin America have generally focused only on Peru, Venezuela and Mexico. Recent scholarship has expanded towards modeling the relationship in Argentina (e.g. Canton and Jorrat, 2002; Remmer and Gelineau, 2003), and demonstrated a sociotropic, retrospective nature of economic evaluations (Canton and Jorrat, 2002). Of the works, a clear majority demonstrates that scholarship has relied on a micro-level interpretation of economic voting. In terms of the determinants of the economic vote, inflation seems to be a prominent variable. This is not surprising given the hyperinflationary period that dominated most of Latin American countries in the 1980s. In the area of subjective economic perceptions, scholarship finds that, surprisingly, voters tend to assume a prospective characteristic. This is quite different from the retrospective-dominated perceptions evident in advanced democracies (see Appendix A).

Cross-national studies of Latin America are scarce in economic voting literature. Until recently, Remmer's (1991) seminal work was the sole study. Remmer's study

demonstrated that contrary to past literature, new democracies were not more vulnerable to economic crisis. Instead, "the relationship between economic conditions and aggregate electoral results was mediated principally by party system structure" (Remmer, 794). Using a cross-nation sample of twenty-one presidential elections from twelve Latin American countries, Remmer concluded that inflation and a depreciating exchange rate decreased support for the incumbent. Cross-national studies began to expand in the twenty-first century. Latin American voters demonstrated a longer time horizon of economic voting by punishing both current and past incumbents (Benton, 2005) and seemed to adhere to the notion that economic voting is mediated by institutional context (Benton, 2005; Johnson and Schwindt-Bayer, 2009). Interestingly, one of the conclusions that Johnson and Schweindt-Bayer reached was that during a bad economy, support for the president was reduced only under a divided government. The finding counters the theoretical assumption of clarity of responsibility, due to the fact that it notes that a minority government fails to blur clarity of responsibility.

Cross-national studies of Latin American countries have paved the way for a breadth of economic voting research questions. For example, Johnson and Ryu (2010) examine whether presidential broken promises can condition the economic vote. The authors find that while president are not rewarded for keeping campaign promises, voters do take broken promises into account and thus economic voting is more important for promise breakers. Furthermore, voters are willing to support a president if broken promises can produce economic gains (Johnson and Ryu, 16). Singer and Gelineau (2010) examine whether voters respond to economic changes in a heterogeneous manner. Using the Latinobarometer (1995-2005) the authors conclude that economic voters are

heterogeneous voters. First the elderly are the least likely to base their vote on economics. Second, women are more likely to base their opinion of the incumbent on the unemployment rate. Finally, the unemployment rate is salient for the poor, while the rich focus on inflation.

Economic voting in Latin America has defied the traditional theoretical framework present in developed countries. While the latter has assumed a predominately retrospective, sociotropic orientation at the micro-level, economic voting in Latin America has demonstrated to be prospective. While single-country studies suffer from a lack of case study breadth, cross-national studies have expanded economic voting research in unprecedented ways.

### Central and Eastern Europe

After the fall of the Soviet Union and the iron curtain, CEE countries began their democratization through a wave of electoral victories by pro-reform parties. These "democratic" parties placed emphasis on economic reforms and implemented various measures of shock therapy. The result was a reduction of standard of living of its citizenry, who had grown accustom to the state-socialist programs of full employment, public housing, and other subsidies. The illusionary promises by pro-reform parties combined with economic regression created a "withdrawal effect" in the electorate as voter turnout fell sharply throughout CEE. More importantly, it created a climate whereby the newly created leftist parties were able to capitalize on the economic sorrow of the public and gain electoral victories in such countries as Poland, Bulgaria, Lithuania and Hungary. The "new left" too placed emphasis on democratization, while

simultaneously promoting a return to the social welfare system. The success of the "new left" was partly due to the fact that voters attributed its socialist roots as a heuristic for full employment and partly due to the fractionalization of pro-reform parties. In this sense, CEE voters, in their early stages, defied incumbency-oriented economic voting by engaging in positional (or transitional) economic voting[22] (e.g. Wade et al., 1993; Fidrmuc, 2000a; Fidrmuc, 2000b; Lewis-Beck and Stegmaier, 2009; Owen and Tucker, 2010).

The sudden downfall of state-socialist regimes combined with a hastily move towards privatization creates an intriguing case study for economic voting. A survey of works on economic voting in CEE denotes the prominence of unemployment as a determinant of the economic vote. This is not surprising, considering the socialist past of the region. A closer explanation of the literature demonstrates that single country works are prevalent in the region. An overwhelming majority of scholarship has concentrated towards Russia and Poland (Appendix A). At the cross-nation level, the majority of countries under observation are central European states. This is due to the relative successful democratization and economic transition of central Europe compared to its eastern neighbor.

[22] Tucker's (2006) work on economic voting in transitional economies critiqued the application of CEVT in newly democratized countries with a socialist past. Tucker pointed out that the electorate based its voting on whether the party was a "new regime" or reformist party, or whether it was a "old regime" or anti-reformist party. Furthermore, he demonstrated that new regime party success correlated with the success of economic conditions. In other words, in areas where the economy improved, new regime parties benefited. The opposite was true in the case of old regime parties, who benefited from the economy being worse. Thus, economic voting of post-communist countries defied the incumbency-oriented approach of CEVT. Voters instead based their vote on the ideological nature of the party, whether it represented the "new regime" or the "old regime". Tucker termed this phenomenon as the "transitional identity model" of economic voting.

Macro-level works on Russia suffer from the *autocracy dilemma of economic voting,* or the inability to properly measure economic voting at the macro-level due to the authoritarian nature of elections. For example, despite its neglect by western scholars, the 1996 presidential reelection of incumbent Boris Yeltsin is a clear example of elections that lack freedom and fairness. The fact that the main opposition was a Communist candidate, Gennedy Zuganov, combined with the control of media outlets by pro-Yeltsin Russian oligarchs and various ballot manipulations completely blur the ability to rely on objective voting percentages for the incumbent. Needless to say, scholarship has taken mostly a microlevel approach (Colton, 1996; Hesli and Bashkirova, 2001; Mishler and Willerton, 2003; Richter, 2006)[23]. Of the microlevel works, there lacks a consensus as to which economic variable determines voter behavior. Russian voters intake a wide spectrum of economic behavior: sociotropic (Colton, 1996), pocketbook (Hesli and Bashkirova, 2001), retrospective (Mishler and Willerton, 2003), prospective (Hesli and Bashkirova), inflation (Mishler and Willerton, 2003), unemployment (Colton, 1996), wage arrears (Konitzer-Smirnov, 2003) and real wages (Richter, 2006) appear to influence the economic vote.

Scholarship on economic voting in Poland paints a clearer picture than its Eastern neighbor. The successful implementation of democracy in Poland has brought an almost equal share of macro (Wade et al., 1993; Gibson and Cielecka, 1995; Przeworski, 1996; Bell, 1997) and micro-level data (Powers and Cox, 1997; Bielasiak and Blunck, 2002; Owen and Tucker, 2010). Unemployment serves as the primary determinant of economic voting in an overwhelming majority of scholarship (see appendix A; but see Wade et al.,

[23] Micro-level works on Russia get around the autocracy dilemma of economic voting by measuring individual perceptions instead of tainted macro-level vote results

1995). The significance of unemployment is consistent with theoretical assumptions of economic voting in CEE. Within the Polish electorate we begin to see the first signs of positional economic voting. The significance of unemployment also resonates in Hungary (Lewis-Beck and Stegmaier, 2009) and Czech Republic (Coffey, 2013).

Cross-national studies have also demonstrated the significance of unemployment as a determinant of economic voting (see appendix A). Pacek's (1994) study concluded that higher unemployment rate not only lowers the vote for pro-reform parties (incumbents) but also dampens voter turnout. The failure of pro-reform parties to bring about economic prosperities in such countries as Lithuania, Poland, Hungary and Bulgaria caused the disengagement of politics by the citizenry. The failure of pro-reform parties to stabilize macroeconomic indicators led the electorate to seek new-leftist political parties. Economic voting in CEE takes place within a high number of political parties. According to Powell and Whitten's hypothesis this should substantially blur the clarity of responsibility which in turn should limit the presence of economic voting. However, Tucker's (2001) results demonstrate that prosperous economic conditions are beneficial to "primary incumbents" than to "other incumbents". Thus, voters are able to differentiate between "degrees of incumbency" and assign greater responsibility to primary incumbents, despite the abundance of coalition governments in CEE.

Fidrmuc (2000a; 2000b) demonstrates that voters in CEE base their economic vote on the position of economic reform. In other words, economic voting is not incumbency-oriented, but on the party position of reforms (Fidrmuc, 2000a). As such, the existence of economic voting in CEE lacks the incumbency-oriented status of reward and punishment. This is further solidified with the positive relationship between

unemployment and leftist political parties (Fidrmuc, 2000b). Roberts' (2008) work provides further empirical grounds of the significance of unemployment. However, more important is the fact that Roberts finds that voters dish out more punishment than reward.

### Sub-Saharan Africa

Of all the regions, Sub-Saharan Africa continues to receive the least scholarly attention on the relationship between economics and elections (see appendix A). According to Posner and Simon (2002), the reason for a lack of research can be attributed to the continuous infant and volatile nature of democracy in Africa. In addition, macroeconomic data limitations substantially paralyze the ability to perform reliable scholarship on economic voting in Africa. While the scarcity of macroeconomic data provides an explanation as to the potential reason of scholarly neglect at the macro-level, the introduction of the Afrobarometer dataset has failed to gather scholarly attention.

Economic voting in Africa is unique in that the determinant of the vote is substantially impacted by ethnicity (Posner and Simon, 2002; Youde, 2005; Bratton et al., 2012). Thus, any empirical scholarship has to account for ethnic affiliation as a control mechanism. Posner and Simon (2002) observe the relationship between economics and elections in the 1991 and 1996 Zambian election using a combination of individual level surveys and district-level electoral data. Controlling for ethnic background, age, gender and urban residence, the authors find that voters in 1996 based their vote on perceptions of the economy. At the macro-level, the economy was operationalized as the poverty rate and depth, and only reached significance when observed as a change from 1991 to 1996. Despite the presence of economic voting, Posner and Simon conclude ethnic affiliation

and territorial location explain the "lions share" of the vote. Additionally, Posner and Simon demonstrate that punishment of the incumbent occurred through "withdrawal", an abstention process. Youde's (2005) work on economic voting in Ghana, concludes that "prospective economic evaluations are almost twice as important as retrospective ones in determining a given person's support for the government" (Youde, 11). In demonstrating the presence of economic perceptions on the vote, Youde too finds the significant impact of ethnicity. Tche (2009) compares the GDP growth rate with the percentage of the electoral vote during the 1992, 1997 and 2004 presidential elections in Cameroon. Tche's methodology lacks the use of regression techniques; he concludes that higher GDP growth was associated with higher percentage of the vote for the incumbent, Paul Biya. Michelitch et al., (2012) study draws a comparison between "conditional" prospective economic voting questions in the United States and Ghana. Although the authors motive is to demonstrate the improper understanding of prospective economic voting questions, their results confirm that voters acted on prospective intentions when assessing the 2008 Ghanaian presidential elections

Bratton et al. (2012) is the sole work in the cross-national context. The authors make use of the Afrobarometer dataset in order to test the prominent determinants of the vote: ethnicity, economy and party. The study confirms earlier results of single country studies: that African voters simultaneously engage in both ethnic and economic voting. Specifically, within the context of economic voting, voters are prospective and sociotropic. The prominence of prospective economic voting parallels results in Latin America and Central and Eastern Europe.

**Asia**

Research on economic voting in Asia focuses on South and East Asia. This comes as no surprise given that the two sub-regions contain many of the democratic regimes in the area. Although scarce in Central Asia and the Middle East, scholarship has began to evolve in the latter with recent works demonstrating economic voting in Turkey (Carkoglu, 1997; Hazama, 2006; Akarca and Tansel, 2006; 2007) and Israel (Sheafer, 2008). Throughout the continent there seems to be a direct correlation between a country's level of democracy and the scholarly attention it receives with respect to economic voting. This again is of little surprise as democratization is a precondition to empirically test any determinant of voting at the macro-level.

Economic voting in the Middle East has thus far been strictly single country studies of Turkey and Israel. While Israel has had an institutionalized government for half a century, Turkey has been marked by numerous military coups which result in the banning of parties, only to reappear with rebranding years later. Despite having a volatile quasi-democracy, scholarship on Turkey has exceeded academic expectations. Having a predominately macro-level nature, research has demonstrated that growth rate (Akarca and Tansel, 2006; 2007) and inflation (Carkoglu, 1997; Akarca and Tansel, 2006) are predictors of the Turkish vote. At the microlevel, Hazama (2006) found that when voters act in retrospective fashion, they do so through a pocketbook lens and when voters assess the economic prospectively, they do so with a sociotropic lens. Economic voting in Turkey also demonstrates that Turkish voters dish out reward and punishment to the primary incumbent party (Akarca and Tansel, 2006; 2007), a finding that parallels research in the developing world (Wilkin et al., 1997; Tucker, 2001).

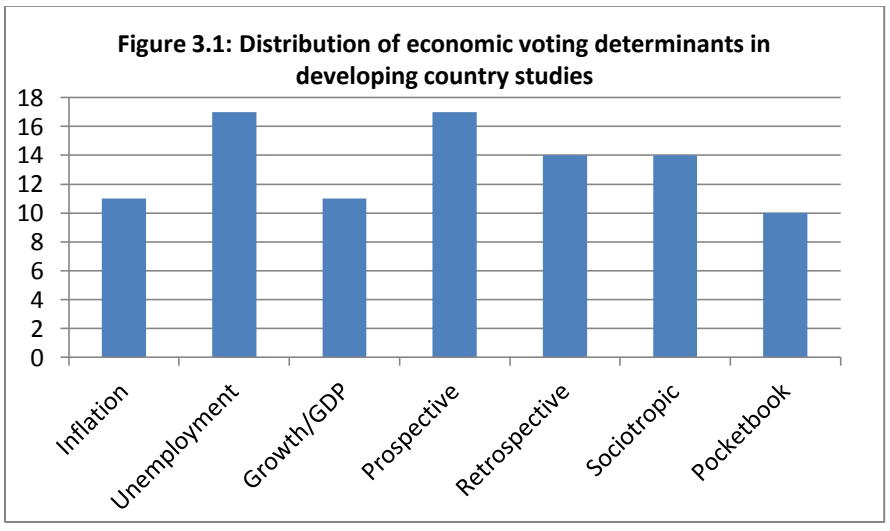
Economic Voting in the south and eastern Asian subcontinent has primarily focused on South Korea (Wade and Kang, 1990; Lee, 2011; Lee and Glasure, 2012) with less work on India (Meyer and Malcolm, 1993; Tandon, 2012) and Taiwan (Hsieh et al., 1998; Choi, 2010). Given the one-party dominant democracy of Taiwan, works have assumed a micro-level approach with vote choice being dependent on prospective (Hseih et al., 1998) and sociotropic (Choi, 2010) economic evaluations. The two works on India lack a consensus on the presence of economic voting. While Meyer and Malcolm (1993) found a relationship between GDP and vote for the incumbent party, Tandon (2012) dismissed tariffs as a determinant of economic voting during tariff reforms in the 1990s. In fact, the author finds that the incumbent party was actually rewarded for the liberalization of tariffs, which negatively impacted domestic industries. Tandon notes of the pattern to reward the incumbent for shock therapy as a sign of voter sophistication.

Within Asia, economic voting in South Korea presents an interesting case study. Historically, scholarship on voting behavior in Korea has demonstrated strong regional orientation (Lee and Glasure, 2012). Despite the "regionalization" of voting, Wade and Kang (1990) were able to evaluate the impact on economics on the 1988 legislative vote using district level data. They included a control variable for region and concluded that the rate of unemployment was inversely associated with the vote for the Democratic Justice Party (DJP). The scarcity of economic voting in Korea changed with the Asian Financial Crisis in 1997 (Lee, 2011; Kang, 2013). As the economy increasingly became a salient issue, Korean voters began demonstrating traces of retrospective and sociotropic orientations (Lee, 2011; Lee and Glasure, 2012). Interestingly, during the 2007 Korean

presidential election, the impact economic voting managed to outweigh regionalism on voter behavior (Lee, 2011).

**State of the Literature**

The extensive literature review provides support for the fact that a CEVT-oriented approach is inconsistent with works on developing countries. First, developing countries provide more dynamic results as to whether voters are pocketbook or sociotropic and retrospective or prospective. Based on Western theoretical pillars, CEVT assumes that voters exhibit retrospective and sociotropic economic perceptions. As evident by the works presented above, micro-level economic perceptions are much more dynamic and thus inconsistent with CEVT assumptions (see graph below). Second, the absence of a strong political preference in voter behavior makes economic voting in developing countries more prominent than in mature democracies. Of the sixty-seven works on developing countries, only six failed to demonstrate patterns of economic voting. With over ninety percent of the works confirming economic voting, it may very well be that economic voting is more abundant in developing countries than in developed ones.



Economic perceptions are more equally distributed in developing countries than in developed countries. Interestingly, voters tend exhibit greater levels of prospective perceptions than retrospective perceptions. Why is this so? An answer may lie in the minimal time horizon of incumbent parties. The fact that party volatility is more prevalent in developing democracies means that parties preside over the country for limited amounts of time. This creates the effect that political parties fail to gain an adequate time horizon to present voters with a retrospective economic record. As such, voters place emphasis on prospective perceptions. The dominance of unemployment stems for its consistent presence in CEE literature. In fact of the seventeen works which identify unemployment as an economic determinant of the vote, eleven come from CEE studies.

In summary, a discussion of the current literature on economic voting in the developing world provides for a contrasting theoretical approach. While the sociotropic pillar of CEVT may be applicable, voters in developing countries tend to be prospectively-oriented. This is due to the infant nature of party systems and political volatility. At the macro-level unemployment is clearly a dominant economic determinant of the vote in CEE and inflation in Latin America. Finally, the ongoing debate on the asymmetry of the vote provides further critique of CEVT as a durable theoretical framework.

## Chapter 4 – Research Design

As noted in chapter three, empirical work on economic voting has been plagued by methodological problems. From the omnipotent ecological fallacy, to the presence of the Kramer problem, the research design of studies has been the most complex and debated aspect of scholarship on economic voting. To avoid erroneously inferring macro-level results to individual voters, this paper implements both a macro and micro-level methodology. At the micro-level, using a large N-size approach can further help to gain leverage over the inferential capability of the study. In both cases the research implements the use of the V-function, instead of the P-function. As noted by Lewis-Beck and Stegmaier (2008), the problem with popularity functions stems from the fact that it lacks a direct relationship with what economic voting is ultimately attempting to understand: the vote.

### Macro-level Methodology: Brief Overview

At the macro level, this study aims to demonstrate a relationship between the incumbent vote and macroeconomic performance. Testing economic voting at the macro-level provides several benefits. First, as Kramer (1983) notes, the bias in aggregate-level data is modest and traceable when compared with its micro counterpart (Kramer, 93). Second, historically evidence from aggregate-level data on economic voting has been more consistent (Jacobson and Kernell, 1981). Third, aggregate-level data provide interpretations of *actual* economic voting. Surveys results simply record views of the citizenry, but fail to show whether such views are actually enforced during an electoral cycle. In other words, surveys may point out the presence of subjective economic

perception, but those perceptions may fail to carry over toward the voting booth. Ultimately, it is the vote that puts the voting in economic voting.

Macro-level methodology, however, isn't without its own set of limitations. According to Lewis-Beck (1986), aggregate time-series models fail to specify when economic voting actually occurs. Second, aggregate models lack the psychological element, present in individual surveys of the vote (MacKuen et al., 1992). Third, macro-level models tend to suffer from small sample size and tend to result in serial correlation (Pacek and Radcliff, 1995; Wilkin et al., 1997). Fourth, measurement at the aggregate fails to account for non-economic variables such as party identification, which may create issues of endogeneity due to omitted political variables (Lewis-Beck, 1986). Finally, macro-level models are unable to create individualistic distinguishing characteristics (e.g. retrospective, prospective, pocketbook, sociotropic, etc.) and aggregate results have to be carefully analyzed so as to avoid the charge of ecological fallacy.

**Macro-level Methodology: Data and Model**

With the following caveats in mind, the macro-level aspect of the research will address the relationship between the incumbent vote and economic conditions in developing countries. As noted in the introduction, to merit inclusion, a developing country must be classified by the IMF as a emerging and developing economy and have (1) competitive multiparty elections and (2) a elected legislature, specifically the lower house[24]. Election cases were then selected based on the democracy score of six and above

[24] One of the criteria for identifying democracies proposed by Cheibub and Przeworski (1999) is that the incumbent yield office. The reason this criteria was not included is due to the fact that the inclusion would omit the country of Botswana, one of the beacons fro democracy in Africa. Although elections are

from Polity IV "*democ"* index. The "six and above" threshold has been widely used to differentiate between degrees of *electoralability* (e.g. Hellwig and Samuels, 2008). The total number of countries included in the study is sixty-six countries with a total election sample size of three hundred thirty one[25]. The time period of the study spans from 1980 until 2012. Given the lack of economic data availability prior to 1980 in databases such as the IMF World Economic Indicators, beginning the time series in 1980 is reasonable. In addition, because most of the developing countries are part of the so-called "third wave" of democratization, using 1980 as a starting point is unavoidable due to data limitations on elections prior to that year.

Dependent Variable. The dependent variable, which is the percentage of votes received by the incumbent party (and alliance)[26], is perhaps the most prominent measure of the *incumbency-oriented* CEVT (e.g., Pacek and Radcliff, 1995). Rather than measuring the change in the incumbent vote, I relied on the absolute measure of the vote[27]. In order to maintain consistency, the data for the dependent variable was obtained from a limited number of sources, prominently from Dieter Nohlen's multivolume set on electoral data and from the International Foundation for Electoral Systems (IFES) "Election guide" website. Nohlen's work is perhaps the most comprehensive account of electoral data ever assembled. The following volumes from Nohlen were used to assemble the data on the incumbent vote: *Elections in Africa: A Data Handbook (1999), Elections in Asia and the Pacific: A Data Handbook Vol. 1 (2001), Elections in Asia and*

---

conducted in a democratic manner, the Botswana Democratic Party (BDP) has won every single national assembly election since 1984, which under Cheibub and Przeworski's criteria would mar its omission.

[25] Haiti was dropped from the study due to the fact that reliable electoral data was unavailable.

[26]

[27] Using the change in incumbent vote would require me to drop the first election of each country (in order to properly measure change, change of the first election would be nil) which would severely limit my sample size

*the Pacific: A Data Handbook Vol. II (2001), Elections in the Americas: A Data Handbook Vol. I (2005), Elections in the Americas: A Data Handbook Vol. II (2005), Elections in Europe: A Data Handbook (2010).*

Electoral data in Africa and the Americas is scarcer than its Central and Eastern European counterparts. Thus in addition to the two sources, electoral data was also obtained from Andy Baker's Latin American election results with party ideology scores and the African Elections Database. Reliance on virtual databases, ensured that the data were up-to-date.

Independent Variables. To control for past elections, I include a lagged dependent variable. Theoretically, inclusion of a lagged dependent variable is due to the "ceiling effect" which states that incumbent support is likely to decline following a gain (Rose and Mackie, 1983). This feeds off the notion of the "cost of ruling", which states that as the number of years in which a incumbent party rules increases, its vote share is likely to decrease due to the "discouraged voter" effect. Thus, I hypothesize that the lagged dependent variable will be inversely related to vote for the incumbent.

The main economic indicator is operationalized as the annual change in real per capita gross domestic product (GDP), or the growth rate during the election year. Pacek and Radcliff (1995) indicate that the growth rate is the best measure of the material well-being of the electorate (Pacek and Radcliff, 750). In fact, in a recent synopsis of the state of affairs in economic voting, Lewis-Beck and Stegmaier (2013) noted that growth is a robust determinant of the vote, while inflation is no longer a primary determinant. Data

for the growth rate was obtained from the IMF's World Economic Indicators and the World Bank's economic database.

The regression equations follow a traditional economic voting equation pattern where,

$$Vote_{ct} = \beta_0 + \beta_1 VoteLag + \beta_2 Growth$$

$$Vote_{ct} = \beta_0 + \beta_1 VoteLag + \beta_2 Growth + \beta_3 Inflation$$

$$Vote_{ct} = \beta_0 + \beta_1 VoteLag + \beta_2 Growth + \beta_3 Unemployment$$

$$LatinVote_{ct} = \beta_0 + \beta_1 VoteLag + \beta_2 Growth + \beta_3 Inflation$$

$$CEEVote_{ct} = \beta_0 + \beta_1 VoteLag + \beta_2 Growth + \beta_3 Unemployment$$

*Vote*[28] is the percentage of votes received by the incumbent during time *t* in country *c*, $\beta_1$ is the lagged dependent variable and $\beta_2$ is the economic indicator. With regard to the Latin American region, the vote function includes an additional macroeconomic determinant. This is due to Latin America's history with hyperinflation and the prevalence of inflation in prior works on Latin America (See appendix A). The vote function for Central and Eastern Europe includes the unemployment determinant

[28] This model assumes that voter turnout is constant throughout the time series and that economic voting is not mediated by the turnout rate. Modeling voter turnout as a mediating covariate between macroeconomic indicators and the vote is beyond the scope of the paper. However, a snapshot of the descriptive statistics on voter turnout rates demonstrates that voter turnout tends to be higher during periods of economic crisis, the so-called mobilization effect. During the hyperinflationary period of the Latin American Debt Crisis (1982-1990) the mean voter turnout was 73.09%. After the end of the crisis, the average declines to 66.02 (1991-2008). In Africa, the period between 1979 and 1999 is generally regarded as fairly crisis prone. The mean voter turnout was 70.61%. In the period 2000 to 2012, the average voter turnout declines o 64.90%. In Central and Eastern Europe, the transition period (1990-96) produced an average voter turnout of 66.61%. Following the transition period, voter turnout declines to 59.76%. Finally, in Asia during the inflationary period of the Asian Financial Crisis (1995-1999) average turnout was 69.07%. Following the AFC, turnout declines to 67.22% (2000-2008). In all cases voter turnout during an region-wide economic crisis increased voter turnout thus creating a "mobilizing effect."

due to CEE's historical experience with state-socialism and full employment. Furthermore, an overwhelming majority of literature on CEE has acknowledged the presence of unemployment as an economic determinant of the vote. The African and Asian model lacks unemployment and inflation indicators for several reasons. First, the scarcity of employment data on African countries prevents the inclusion of the unemployment statistic. Furthermore, Africa has not experienced a period of hyperinflationary pressures. With regard to Asia, scholarship has failed to assess the prominence of inflation or unemployment. Despite the Asian Financial Crisis of 1997 which produced inflationary pressures, the countries in the sample avoided runaway inflation. Finally, including both inflation and unemployment in the same model runs the risk of collinearity (due to the Phillips Curve). However, excluding the "full model" all together will fail to note how the possibility of collinearity will effect either inflation or unemployment. Thus, the "full model" in the next chapter should be assessed with caution.

According to macro-level theory, it is expected that the growth rate will be positively associated with the vote for the incumbent. In other words, the higher the growth, the more likely that incumbent government will be politically rewarded. Both inflation and unemployment are expected to be inversely associated with the vote. A plethora of literature has demonstrated that a rise in inflation and unemployment tends to hurt the incumbent party, as both indicators demonstrate a regressive economy.

Since the data are observations repeated over time across the same units, the model may be described as a cross-sectional time-series or panel data model. Having a panel model not only strengthens the causal inference process (Finkel, 1995), it also

increases leverage of the data. Inclusion of a lagged endogenous covariate (lagged dependent variable or LDV) in the model specifies the nature of the model: *conditional change panel model.* The use of panel data, however, has its drawbacks. Heteroskedasticity and autocorrelation are particularly problematic with cross-sectional time-series (Stimson, 1985; Beck and Katz, 1995). As such, reliance on OLS is problematic due to the fact that the estimates of the standard errors will be anti-conservative[29]. After a White and Breusch-Pagan (BP) test, it was determined that the panel data indeed suffered from heteroskedastcitiy. Thus, relying on Beck and Katz's (1995) remedy, the paper uses panel corrected standard errors (PCSE) to estimate the model. PCSE relaxes the Gauss-Markov assumptions by assuming that the disturbances are heteroskedastic.

Pooled cross-section time series data is also prone to autocorrelation. The issue of serial correlation is controlled for by the inclusion of a lagged dependent variable[30]. Beck and Katz (1996) note that using PCSE with time series cross-sectional data is better apt at addressing the issue of serial correlation than the cross-sectionally heteroskedastic and timewise autocorrelated model (CHTA) proposed by Jan Kmenta (1986). Beck and Katz (1996) critiqued the Kmenta method as correcting for serial correlation, but in the process producing "downwardly biased estimates" (Beck and Katz 1996, 8). The Beck and Katz

[29] Running an OLS model with panel data (time series cross section) gives us inaccurate standard errors. As per Beck and Kats, the model retains OLS parameters, but with panel corrected standard errors.
[30] Critics have asserted that the inclusion of a lagged dependent variable creates a correlation between the variable and the error term. However in Beck and Katz (2011) the authors note that the lagged dependent variable provides similar coefficient estimates as first-order serially correlated error model. See Appendix D for a comparison between LDV and AR1 coefficients.

remedy of including a lagged dependent variable ensures that "residuals are serially independent" (Beck and Katz 1996, 15)[31].

**Microlevel Methodology: Brief Overview**

Reliance on microlevel methodology presents several advantages with respect to inferential capability. First and foremost, according to Lewis-Beck (1986), the proper manner in which to assess the relationship between economics and voters is to study voters themselves. Having individual level data achieves this condition. Second, microlevel allows one to measure the characteristics of the individual economic voter, and specifically the distinctions among retrospective and prospective, and pocketbook and sociotropic. Third, the benefit of survey data is that it tends to be "soft" meaning that it is "not so susceptible to fancy statistical manipulation" (Fiorina 1978, 430). Fourth, using micro-level data allows the empirical assessment of the "grievance asymmetry" issue without risking guilt of the ecological fallacy. Finally, micro-level data allows for the numerous control variables, especially party identification and socio-demographics.

Microlevel data also has its limitations too. The most prominent drawback is its inability to mirror findings of its aggregate counterpart. While much of early works on economic voting at the macro-level found substantial results, microlevel works were unable to imitate the success. Second, there are often discrepancies between the findings of microlevel studies and actual votes. Kuklinski and West (1981) noted that in NES survey based on the 1978 congressional elections, fifty-four percent of the respondents

[31] In testing for autocorrelation, the lack of a lagged dependent variable derives a large – ρ - "rho" estimate which exemplifies serial correlation. With the inclusion of a lagged dependent variable, ρ decreases dramatically, signifying that the lagged dependent variable is controlling for serial correlation.

noted that they had voted in the election, yet the actual vote was thirty-five percent[32]. It is not uncommon in polls to witness inflated numbers for action-prone questions such as voting. Finally, evidence of economic voting at the microlevel doesn't necessarily correspond to actual economic voting. Voters may present subjective perceptions of the economy that leads one to conclude that voters are retrospective, sociotropic but in an actual vote setting, such as an election, citizens may fail to act as economic voters.

**Microlevel Methodology: Data and Model**

The availability of several individual level surveys has allowed microlevel scholarship to expand testing of economic voting theory. Among the various data sets, the "barometer" surveys have consistently provided support for economic voting in Latin America (Singer and Gelineau, 2010; Gelineau, 2013; Lewis-Beck and Ratto, 2013), Central and Eastern Europe (Harper, 2000), Africa (Youde, 2005; Bratton et al., 2012; Gelineau, 2013), and Asia (Lee and Glasure, 2012; Gelineau, 2013). Waves of Latinobarometer and Afrobarometer provide the necessary data to model economic perceptions on the vote. That said, the current wave of the Eurobarometer lacks in-depth questionnaires on political affiliation and voting behavior. In addition, the vote questionnaire in the Asianbarometer assumes a retrospective characteristic (which parties or candidates for president did you vote for?). Thus, a comparative analysis among the four barometers is not possible given the differences in the items in vote choice. As such, the microlevel analysis was limited to the study third and fourth wave of the Afrobarometer and the 2005 and 2008 wave of the Latinobarometer. Despite the

[32] A micro-level study might find a relationship between economic perceptions and vote for the incumbent. However, voters who note they either voted or intend to vote for the incumbent may not resonate at the macro-level. Voters may either have "withdrawal" symptoms of fail to vote on the basis of economics.

omission of Asian and CEE countries, the current dataset includes thirty-two of the sixty-six countries.

$$Vote = Economic\ Perceptions + political\ identification + sociodemographic\ controls$$

Dependent Variable. As previously noted, measurement of the response variable is performed using either vote or popularity function. To get at the core of understanding the association between economics and voting, it is necessary to empirically assess the v-function. The Afro and Latinobarometer both provide a voting questionnaire that measures intention to vote in a hypothetical election. The Afrobarometer specifically asks respondents on voting behavior towards presidential elections: *If a presidential election were held tomorrow, which party's candidate would you vote for?* The Latinobarometer fails to specify the electoral institution by asking: *If there were elections tomorrow, which party would you vote for?* For the purpose of maintaining comparability, the vote questionnaire in the Latinobarometer was applied toward presidential elections. The dependent variable is dichotomous, coded with "1" for respondents who would vote for the incumbent party (and/or alliance), and "0" otherwise.

Independent Variables. Both the Afrobarometer and Latinobarometer include items that measure various perceptions of the economy. Specifically, the Afrobarometer and Latinobarometer include questions that measure individual economic perceptions in a *retrospective egotropic*, *retrospective sociotropic*, *prospective egotropic,* and *prospective sociotropic* manner. Table 4.1 provides an overview of each item. The response is measured on a five-point scale, ranging from economic conditions are much worse, worse, same, better, or much better. Economic voting posits that positive economic

perceptions are associated with intention to vote for the incumbent. Thus, a respondent who perceives the economy as either improving or having been improved is more likely to support the incumbent than one who has a negative evaluation of the economy.

Aside from economic perceptions, several control variables are included in the model in order to properly measure voting behavior. Literature on voting behavior has demonstrating that party identification is a major determinant of the vote in developed countries (Campbell et al., 1960; Lewis-Beck et al., 2009). Although some developing democracies do not yet have institutionalized party systems, including an indicator of party identification can help us understand the nature of the relationship between political association and the vote. Unfortunately, the Latinobarometer lacks a corresponding question on party identification. Thus, an ideology indicator was substituted to preserve the notion that political identification influences the vote. While the lack of a party identification item prevents one from examining its influence in a pooled model, we will be able to observe its effect in the African dataset.

The party identification indicator was coded as a binary variable with "1" representing identification with the incumbent party and "0" representing identification with non-incumbent parties. The "ideology" indicator consists of a scale measuring a typical left-right ideology spectrum with "0" being left and "10" being right. In Latin America, despite the volatile history of political party platforms, party ideology (across a left-right spectrum) has for the most part remained stable. Thus, ideology is a reasonable proxy for party identification in Latin America, as ideologies of political party platforms closely parallel the left-right ideological spectrum.

Table 4.1: Perceptions of the Economy questionnaires

| | | |
|---|---|---|
| Looking back, how do you rate the following compared to twelve months ago: Economic conditions in this country? | Retrospective, Sociotropic | Afrobarometer |
| Looking back, how do you rate the following compared to twelve months ago: Your living conditions? | Retrospective, Egotropic | Afrobarometer |
| Looking ahead, do you expect the following to be better or worse: Economic conditions in this country in twelve months time? | Prospective, Sociotropic | Afrobarometer |
| Looking ahead, do you expect the following to be better or worse: Your living conditions in twelve months time? | Prospective, Egotropic | Afrobarometer |
| Do you consider the country's present economic situation to be much better, a little better, about the same, a little worse or much worse than 12 months ago? | Retrospective, Sociotropic | Latinobarometer |
| Do you consider your economic situation and that of your family to be much better, a little better, about the same, a little worse or much worse than 12 months ago? | Retrospective, Egotropic | Latinobarometer |
| And over the next 12 months do you think that, in general, the country's economic situation will be much better, a little better, about the same, a little worse or much worse than now? | Prospective, Sociotropic | Latinobarometer |
| In the next 12 months, do you think your economic situation and that of your family will be much better, a little better, about the same, a little worse or much worse than now? | Prospective, Egotropic | Latinobarometer |

In addition, the model also includes standard controls for sex, age, and education. Sex was coded as a binary variable with a "1" being male and a "0" being female. Age and education were coded with a series of dichotomous covariates with the reference category being sixteen to thirty-five for age, and no education for the education covariate. At the regional level, controlling for ethnicity and rural residency (in Africa) is important towards properly understanding the effects of economic perceptions on the vote. Prior works on Africa have demonstrated the saliency of ethnic voting. Thus, the model controls for ethnic saliency and whether the respondent hails from an urban or rural setting. Ethnic saliency is operationalized by a questionnaire asking respondents to either

identify with either their ethnicity, national identity, or both[33]. Ethnicity was coded on a five point scale ranging from "-2" to "2". If the respondent identified solely with the ethnic group a score of -2 would be assigned. If the respondent identified solely with the nationality a score of 2 would be assigned. The coding would ensure that if ethnic voting is a significant determinant of the vote, then the coefficient should be negatively associated with the vote. Rural residency was coded as a binary variable assuming a "1" if the respondent resided in a rural setting and 0 otherwise.

The second part of the micro-model attempts to understand whether voter place symmetric weight on good and bad economic times. The paper follows the methodology proposed by Lewis-Beck (1988) to assess the asymmetric effects of voting. In his assessment of economic voting in mature democracies, Lewis-Beck provides an asymmetry of the vote model:

$$Vote = a_1 + b_1R_1 + b_2R_2 + c_1F_1 + c_2F_2 + e$$

Where $R_1$indicates a positive response towards the government effect on the economy last year; $R_2$ indicates a negative response towards the government effect on the economy last year; $F_1$ indicates a positive response towards the government effect on the economy next year; $F_2$ indicates a negative response towards the government effect on the economy next year. All variables are measured in a dichotomous manner. Since the model assumes a "government effect" on the economy, it is naturally a sociotropic phenomenon. Thus, sociotropic retrospective and sociotropic prospective evaluations

[33] The question is as follows: "Let us suppose that you had to choose between being a [Ghanaian/Kenyan/etc.] and being a _____[respondent's identity group]. Which of these two groups do you feel most strongly attached to?" The respondent may choose to identify solely or primarily with the ethnic group, solely or primarily with the nationality or indentify equally with both.

were recoded as "dummy" variables in order to contrast a positive perception from a negative one.

The asymmetry of the vote can occur in several manners. First, voters may punish but fail to reward the incumbent for the economy. Second, voters may act in the opposite manner: they may reward but fail to punish. Third, voters may reward and punish but not towards the same degree. Punishment may exceed reward, or reward may exceed punishment. The presence of both punishment and reward doesn't necessarily mean that voters punish and reward even-handedly. Relaxing the "grievance asymmetry" hypothesis to include both punishment and reward but of varying degrees can help extend the understanding of voter reaction towards the economy.

**Conclusion**

A "dualistic" approach of a macro and micro-level analysis can help increase leverage over inferences made towards understanding economic voting in developing countries. While a macro-level interpretation is necessary towards understanding the relationship between the actual vote for the incumbent and macroeconomic indicators, a micro-level analysis provides an in-depth account of individual perceptions of the economy. Furthermore, individual-level analysis can also reveal whether forms of voter asymmetry are existent in the developing world.

Reliance on a cross-regional sample can simultaneously increase our N-size and provide a world-wide sample of developing countries. Using the v-function (instead of the p-function) helps to "truly" test for the presence of economic voting. At the macro-level, inclusion of a lagged dependent variable helps control for serial correlation while

also testing the "cost of ruling" effect. At the micro-level, inclusion of socio-demographic controls helps to properly understand the effect of economic perceptions on vote intentions. Finally, the presence of socio-demographic variables allows for the analysis of possible interaction effects between perceptions of the economy and age, education and sex.

## Chapter 5 – Empirical Results and Discussion

Economic voting in the developing world has seldom been tested at the cross-regional level. In attempting to fill the vacuum, the following chapter summarizes the results of the macro and micro-level modeling of economic voting, along with whether voting takes place within a symmetrical framework. After presenting the results, the chapter then discusses both the statistical and substantive significance of the various models and the overall application of CEVT in the developing context.

Does economic performance affect voting for the incumbent? To anticipate, the results presented in this chapter suggest that at both the macro and micro-level, voter behavior is influenced by the economy. With macro-level models, we see that voting for the incumbent is predominately influenced by growth rate. While the significance of growth rate fluctuates at the regional level, its association with vote for the incumbent is clearly present in cross-regional models. At the micro-level, I find that voters in developing countries associate themselves with sociotropic evaluations. Although both retrospective and prospective perceptions of the economy are predictors of vote intention, the magnitude of the latter surpasses the former. Finally, the asymmetry voting model provides evidence that voters punish the incumbent for economic downturn and reward it for periods of economic prosperity. However, the magnitude of punishment and reward differs when voters operate within a retrospective and prospective assumption.

### Macro-level Results

Table 5.1 presents the results of the pooled model with observations from all regions. Looking first at the adjusted R-squared in each trial, we see that the trials consistently explains about one-third of the variance in vote for the incumbent. The

variance in the dependent variable of the full model must be interpreted with caution given the potential of collinearity between inflation and unemployment. However, even when unemployment and inflation are omitted in models three and four, the variance of the dependent variable explained by the model continues at approximately one-third.

Table 5.1: Cross-Regional Regression Results [34]

| Dependent Variable: Incumbent share of total legislative vote in national assemblies | | | | |
|---|---|---|---|---|
| Covariate | Model1: Full Model | Model 2: Growth Model | Model 3: Growth + Unemployment | Model 4: Growth + Inflation |
| | | | | |
| Vote Lag | .51***<br>(.06) | .52***<br>(.06) | .49***<br>(.06) | .54***<br>(.06) |
| Growth | .63***<br>(.17) | .50***<br>(.15) | .61***<br>(.16) | .49***<br>(.15) |
| Unemployment | .23*<br>(.14) | | .20<br>(.14) | |
| Inflation | .30<br>(.58) | | | .09<br>(.54) |
| Adj. R-squared<br>n-size | .32<br>210 | .33<br>258 | .31<br>216 | .35<br>250 |
| Panel-corrected standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$ | | | | |

Interestingly, the coefficient for the lagged vote covariate is positive and significant. The magnitude of the coefficient suggests that a unit change in the percentage of the incumbent vote of *t-1* increases the vote for the incumbent by half a percentage point. In all four models, the coefficient for lagged dependent variable is consistently significant and positive. This dispels any account of the "cost of governing" effect in the

[34]Prior to running the current model, I ran estimations of the macro-level data model with dummy variables for each country. I was unable to find countries with summed residuals and residual variance ratios that were above three times the mean of the dependent variable. Thus, re-estimating the model with fixed effects proved to be unnecessary because the diagnostics did not reveal any influential unit (fixed) effects. Running a "xtreg" model in Stata 13 with fixed effects and random effects provided similar results of my macroeconomic covariates as in the stated "xtpcse" model.

developing world. In addition, the lagged vote covariate controls for any autocorrelation in the models (see note 4 in chapter four).

The most significant aspect of the pooled world-wide models is the fact that the coefficient for economic growth consistently achieves statistical significance and is in the predicting direction. Its positive association with the incumbent vote implies that an increase in the growth rate corresponds to an increase in the vote for the incumbent. Specifically, in Model 1, a one percent increase in the growth rate corresponds with a .63 percent increase in the vote for the incumbent party, ceteris peribus. The magnitude of the coefficient in the other trials (models 2-4) is broadly consistent with the results in model 1.

Aside from growth rate, the only other economic indicator that achieves statistical significance is the rate of unemployment in the full model. Surprisingly, the coefficient for unemployment is in the opposite direction in models 1 and 3, implying that unemployment is positively associated with the vote for the incumbent. The coefficient for unemployment in model 3 is not significant, however, which suggests that unemployment is not a robust predictor of incumbent vote.

Finally, the coefficient for inflation fails to achieve significance in any of the trials. This shows that after adjusting for the influence of other covariates in the models, inflation had no effect, on average, on incumbents' vote performance.

**Macro-level Discussion**

The economy is widely held to be an underlying issue towards the success of incumbent parties given the volatile nature of the macroeconomy and the lack of a

durable party system in the developing world. When attempting to further understand the relationship between the economy and elections by analyzing the determinants of the economic vote, the results paint a very telling picture of the influence of the economic performance on incumbent parties in the developing world.

The most promising finding of the world-wide models is the significance of economic growth as a consistent economic determinant of the vote. Similar to the conclusion of a review of the literature produced by Lewis-Beck and Stegmaier (2013), growth in GDP has assumed the role of a prominent indicator in determining the economic vote. Indeed, the significance of growth as a determinant of the vote is in line with numerous works measuring the economic vote. The saliency of the growth rate has been demonstrated in various different contexts including early works on U.S. presidential elections (Fair, 1973; 1978), in advanced industrial countries (Powell and Whitten, 1993), Latin America (Benton, 2005; Singer and Gelineau, 2010), Middle East (Akarca and Tansel, 2006; 2007; Sheafter, 2008) a sample of developed and developing countries (Wilkin et al., 1997) and the overall developing world (Pacek and Radcliff, 1995).

Critics of the significance of growth within economic voting literature point to its abstract-like characteristic as a reason for its exclusion. This may be a point contested at the micro-level, where voters would have a difficult time giving a proper perception. However, at the macro-level, the notion that growth increases vote percentages for the incumbent is in line with the most fundamental understanding of economic voting which posits that voters punish and reward the incumbent in accordance with the regressive and progressive nature of the economy.

The unemployment measure has consistently demonstrated an effect in economic voting literature, specifically in CEE case studies. Thus, the question remains as to why at the world-wide level, does unemployment have the opposite effect on the vote in developing countries. An answer may be found in the understanding of the degree of unemployment in the developing world. Aside from the fact that unemployment may be an ambiguous measure of economic rationality (Blount, 2002), the mean for employment in the sample was 10.3%, a much lower figure than expected. With a lack of social safety nets and work reform programs in the developing world, one would expect to witness a considerably higher unemployment percentage of total workforce. The failure of unemployment to inversely associate with incumbent vote may be due to the fact that unemployment may only matter when its level is unexpectedly high. Palmer and Whitten (1999) demonstrated that voters associate macroeconomic indicators with incumbent vote, only when such indicators are "unexpectedly" high. In other words, voters will not render punishment or reward when "expected" macroeconomic indicators are present. Thus, when macroeconomic variables are within their average then voters simply fail to associate such variables with incumbent performance. This may be the reason as to why unemployment (and inflation) fails to perform in the expected manner.

As noted, inflation fails to achieve significance in all four models. The findings for inflation parallel Lewis-Beck and Stegmaier's (2013) account of the macroeconomic variables determining the economic voting. The authors drop inflation as one of the two main determinants of the vote. The omission of inflation is not so much due to its lack of significance as to the recent prominence of unemployment, especially in CEE. The lack of significance for inflation may stem from the fact that the macroeconomic variable only

relates towards the incumbent when there's a high degree of inflation (i.e., hyperinflation). As shall be demonstrated below, the hypothesis is confirmed within the Latin American same during the debt crisis years.

The variance in incumbent vote shares as explained by the models is approximately thirty-three percent. This parallels general findings within the discipline. In fact, Lewis-Beck and Paldam (2000) note that "economic changes explain about one-third of the change in the vote" (Lewis-Beck and Paldam, 114). Literature on single-country studies naturally has tighter fitted models than their cross-national counterparts. In the developing realm, model variance in cross-national works has varied from an adjusted R-squared of 0.48 (Roberts, 2008) to 0.70 (Benton, 2005). Thus, while the model provides a modest fit, the extent to which model fitness is successful depends on the construction of economic measures and the inclusion of political controls (Lewis-Beck and Stegmaier, 2013).

**Regional Models**

Table 5.2 provides the results for region-specific regressions. Because many economic crises tend to be overwhelmingly regionally-specific (e.g. Latin American debt crisis of 1982; Asian financial crisis of 1997-8; collapse of state-socialism in CEE in 1989-92), it is important to test macroeconomic indicators within regions. While region-specific models can help provide a more coherent understanding of economic voting, regional models are limited by a smaller and more volatile N-size (as exemplified in the table below).

Table 5.2: Regional Regression Results

| Dependent Variable: Incumbent share of total vote in national assemblies | | | | |
|---|---|---|---|---|
| Covariate | Model1: Latin America | Model 2: Africa | Model 3: CEE | Model 4:Asia |
| | | | | |
| Vote Lag | .46***<br>(.09) | .40**<br>.19 | .41***<br>(.13) | .31*<br>(.18) |
| Growth | .47**<br>(.28) | -.25<br>.24 | .73***<br>(.18) | .18<br>(1.1) |
| Unemployment | | | .03<br>(.18) | |
| Inflation | .48<br>(.70) | | | -2.1<br>(3.8) |
| Adj. R-squared<br>n-size | .22<br>119 | .17<br>41 | .26<br>66 | .11<br>27 |
| Panel-corrected standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$ | | | | |

In region specific models, the coefficient for lagged dependent variable continues to be positively associated with the percentage of incumbent vote. This further proves in region-specific models that the "cost of ruling" is absent in developing democracies. While the magnitude of the coefficient varies among regions, one can see that a one percent increase in the previous incumbent vote is associated with between .31 to .46 percentage increase in the current incumbent vote, depending on the region. In terms of statistical significance Latin America and CEE have the lower probability of occurrence due to chance than Africa and Asia.

Although growth rate was consistently significant in the world-wide dataset, table 5.2 demonstrates that the effect of the growth rate as a predictor of incumbent vote is region-specific. In Latin America and CEE, the coefficient for growth is statistically significant and in the expected direction, while in Asia growth rate fails to achieve statistical significance. In Africa, growth lacks not only statistical significance, but is also in the opposite direction. Of the two regions where growth rate performs as expected we

see that the magnitude differs substantially. In Latin America, the magnitude of the coefficient indicates that a one percentage increase in the growth rate results in .47 percentage increase in the vote for the incumbent. In CEE, the effect is substantially larger, with a one percent increase in growth rate corresponding to a .73 percent increase in the vote for the incumbent.

Due to the lack of data and issues of collinearity, the unemployment rate was omitted from the regression for Africa and Asia. With regard to Latin America, Appendix A demonstrates that the significance of unemployment as a determinant of economic voting is strictly limited to presidential elections. Thus, it was determined to omit unemployment and simply rely on its application in CEE where a large amount of previous scholarship has demonstrated a significant, inverse association between unemployment and vote for the incumbent. However, in the CEE model, unemployment fails to gain statistical significance and is in the opposite direction.

Finally, the inflation rate was employed in the regression models for Latin America and Asia context due to the fact that previous literature on Africa and CEE largely has failed to find an association between inflation and the economic vote. With regard to Latin America, we see that the coefficient for inflation is positively associated with the vote for the incumbent and lacks statistical significance. In Asia, inflation is in the expected direction but lacks statistical significance.

**Discussion**

Recalling from chapter two and four, the hypothesis for the Latin American model suggested the inflation rate would be negatively associated with vote for the

incumbent. The results in Table 5.2 do not provide empirical support for the claim that inflation is a significant determinant of the vote. Despite the finding for inflation in the regional models, it would be improper to simply dismiss the influence of inflation. After all, one of the most palpable effects during the Latin Americana debt crisis was hyperinflation felt throughout the region. Thus, it is necessary to further investigate the nature of the relationship between the macroeconomy and the vote in Latin America.

Table 5.3: Latin America, 1980 - 1988

| Dependent Variable: Incumbent share of total vote in national assemblies | |
|---|---|
| Covariate | Model 1: Latin America |
| | |
| Vote Lag | .64***<br>(.12) |
| Growth | .63<br>(.71) |
| Inflation[35] | -.014*<br>(.007) |
| R-squared<br>n-size | .11<br>16 |
| Panel-corrected standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$ | |

Table 5.3 confines the Latin American case study to the years between 1980 and 1988, the period in which the debt crisis reached its climax. In the distinct time period, the coefficient for inflation is not only significant at the .10 level but is also in the expected direction. Thus, for every one percent increase in the inflation rate, the incumbent party stood to lose about one one-hundreth of one percent of the vote. When considering the fact that hyperinflation in Latin America reached to the thousands of percent in such

[35] Inflation is not lagged due to the fact that the period experienced was a economic crisis, which was instantaneously felt by the citizenry. However, when inflation is lagged it no longer becomes significant

countries as Argentina and Bolivia, it is clear that inflationary pressures impacted the vote for incumbent parliamentary parties – despite the small size of the coefficient.

Despite the fact that the effect of unemployment on economic voting has been clearly established in CEE countries, Table 5.2 notes that unemployment is not a statistically significant determinant of the incumbent vote. This is quite unusual given the legacy of state-socialism and full employment, and the ascendance of "new regime" parties brought harsh economic periods through "shock therapy" that ultimately ushered in periods of high unemployment. The failure of the unemployment rate to properly predict the incumbent vote may stem from the fact that the prominence of unemployment has elapsed. In order words, voters who invoke the nostalgia of full employment and vote accordingly are no longer using unemployment cues to cast an economic vote. Does that mean that unemployment doesn't matter to the CEE voter? Unfortunately, the collapse of state-socialism which occurred between 1989 and 1992 lacks an admissible sample size to properly test for the effects of unemployment. The period from 1989 to 1992 includes a sample of four elections in the region and with only two degrees of freedom[36] the model below is highly questionable. Pacek's (1994) cross-national study on economic voting in CEE provides an alternative to understand the role unemployment played from 1990 to 1992. Paralleling the same time period, Pacek examined the 1990 Polish presidential election, 1991 Polish legislative election, 1991 Bulgarian legislative election and the 1992 Czechoslovakian legislative election using interregional, district-level data so as to maximize the N-size.

[36] Degrees of freedom are calculated by subtracting the number of covariates from the sample size

Table 5.4: Central and Eastern Europe, 1990 – 1992

| Dependent Variable: Incumbent share of total vote in national assemblies | |
|---|---|
| Covariate | Model1: Central and Eastern Europe |
| | |
| Vote Lag | -1.72***<br>(.11) |
| Unemployment[37] | -19.88***<br>(1.05) |
| R-squared<br>n-size | .99<br>4 |
| Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$ | |

Pacek's findings suggested that higher unemployment lowered the vote for pro-reform parties (incumbents). Thus, despite the inability to isolate the effects on unemployment during the transition period, Pacek's district-level analysis of Poland, Bulgaria and Czechoslovakia demonstrated that unemployment is negatively associated with vote for the incumbent.

Two theoretical inferences can be established from the Latin American and CEE models. First, both models clearly establish that inflation and unemployment had an effect on voter behavior. However, the effect seems to be time dependent. In other words, inflation and unemployment seem to matter during the debt crisis and transition to a market economy, but both fail to continuously influence the incumbent vote share during a longer time series. Second, with respect to the proper nature of lags in economic variables, the crisis in both regions demonstrated that lag structures are unable to provide an adequate account of the relationship. When measurement of economic voting is limited to periods of economic crisis, lagged covariates for inflation and unemployment

[37] Unemployment is not lagged due to the nature of the economic crisis

fail to achieve statistical significance. The failure of lags during economic crisis is theoretically sound in that most if not all crisis create a sudden change in macroeconomic conditions. This is especially true in the case of Latin America and CEE. Inflation in Latin America increased in volatile fashion. For example, in Bolivia inflation increased from 276 percent (in 1983) to 11, 750 (in 1985), while unemployment in Hungary increased from 2.1percent (in 1990) to 11.3 (in 1993). The sudden volatility of macroeconomic indicators during periods of crisis means that voters react instantly to inflation and/or unemployment.

**Micro-level, Cross-Regional Results**

Next, we examine the micro-level models with data for all regions in the study (Tables 5.6-5.8). The fact that the individual-level data involve four measures of economic perception requires the assessment of a correlation matrix in order to address the degree of possible collinearity. As Table 5.5 demonstrates below, there are significant issues of collinearity between *retrospective sociotropic* and *retrospective egotropic*, and between *prospective sociotropic* and *prospective egotropic.* Including covariates for all four perceptions of the economy in the model runs the risk of producing estimates that are distorted by multicollinearity[38].

[38] Running only egotropic perceptions the model accurately predicts the relationship between egotropic evaluations and vote intention. However, after analyzing the cross-tabulation of egotropic perceptions and vote intention it was determined to omit egotropic perception out of the equation. Future studies should take caution in modeling egotropic, sociotropic, retrospective, and prospective perceptions as problematic multicollinearity may exist.

Table 5.5: Micro-level economic voting correlation matrix

| | RetroS~2 | RetroE~2 | ProSoc~2 | ProEgo2 | Sex2 | Ethnic~2 | Rural2 | AgeCat~y | EducFi~l |
|---|---|---|---|---|---|---|---|---|---|
| RetroSocio2 | 1.0000 | | | | | | | | |
| RetroEgo2 | 0.6897 | 1.0000 | | | | | | | |
| ProSocio2 | 0.3519 | 0.3011 | 1.0000 | | | | | | |
| ProEgo2 | 0.2854 | 0.3427 | 0.7822 | 1.0000 | | | | | |
| Sex2 | 0.0228 | 0.0177 | 0.0182 | 0.0196 | 1.0000 | | | | |
| Ethnicity2 | 0.0224 | 0.0103 | 0.0419 | 0.0393 | 0.0238 | 1.0000 | | | |
| Rural2 | -0.0298 | -0.0598 | -0.0405 | -0.0721 | 0.0109 | -0.0748 | 1.0000 | | |
| AgeCategory | -0.0266 | -0.0509 | -0.0267 | -0.0724 | 0.0913 | 0.0116 | 0.0701 | 1.0000 | |
| EducFinal | 0.0750 | 0.1102 | 0.0278 | 0.0690 | 0.0858 | 0.0745 | -0.2813 | -0.2613 | 1.0000 |

The cross-regional micro-level analysis provides three distinct models: (1) cross-regional economic voting, (2) cross-regional voter heterogeneity and (3) a multi-level analysis. Looking at Tables 5.6 and 5.7, one can see that the significance of LR $x^2$ suggests that all the coefficients in the model are significantly different from zero. The percentage of observations that are correctly predicted averages around sixty percent for both models, with percentage of error reduction in the model averaging about nineteen percent.

The coefficients for retrospective sociotropic and prospective sociotropic perceptions in Table 5.6 are both statistically significant, across various models, and are also in the expected direction[39]. Given the positive coefficients, we can infer that as the "degree of wellbeing" increases in retrospective sociotropic and prospective sociotropic evaluations, the probability that individuals vote for the incumbent is greater. In other words, there's a positive association between degree of wellbeing in retrospective sociotropic and prospective sociotropic economic perceptions and vote intention. In order

[39] In a logit model we are interested in understanding how our covariates impact the probability of getting 1 or 0, thus the interpretation of coefficients are severely limited to: (1) the direction of the relationship and (2) the statistical significance of the relationship. The coefficients fail to explain the magnitude of the relationship (See :Golder)

to properly interpret the effect of economic perceptions on vote intention and to understand whether any particular differences exist between the magnitudes of such perceptions, it is necessary to look at the marginal effects, a probabilistic computation. The marginal effects are based on the trimmed "sociotropic" model, which omits egotropic evaluations, due to collinearity, as discussed previously.

Looking the marginal effects[40] in Table 5.6, a one unit increase in the scale of retrospective, sociotropic evaluations translates into a .05 increase in the probability for vote intention for the incumbent, holding all other covariates at their mean. The marginal effects for prospective sociotropic economic well-being are also substantively important. The marginal effects indicate that for prospective, sociotropic evaluations, a one unit change in the covariate increases the probability of vote for the incumbent by .07.

The results for the remaining control variables are fairly straightforward. It is important to recall that the covariate for both age and education are catregorized[41] in the model in Table 5.6. The reference category for education is "no education" while for age, the reference is "16 – 35." The coefficient for age suggests that in comparison to the reference category, there is a diminishing affect between age and incumbent vote intention up to the category for individuals 65 and older (Table 5.6).

The coefficient for sex (male = 1, 0 = otherwise) suggests that females are more likely to vote for the incumbent than males. Specifically, the marginal effects suggest that being a male reduces the probability of voting for the incumbent by two percent. With

[40] Marginal effects demonstrates the change in probability given a unit increase in the independent variable
[41] Education is categorized in the following manner: 0 = no education; 1 = informal schooling (religious schooling; 2 = some/complete primary school; 3 = some/complete secondary schooling; 4 = some/complete university; 5 = post graduate. Age is categorized in the following manner: 1 = 16-35; 2 = 36-49; 3=50-64; 4= 65 and above.

regard to education, Table 5.6 demonstrates that level of education has only a moderate influence on economic voting. The only education coefficients which achieve significances are those with university experience and post-graduate education (as well as informal education). The marginal effects demonstrate that in comparison to the reference category, individuals who have either some or have completed post-secondary education reduces the probability of voting for the incumbent by .08. The marginal effect for those who have post-graduate education experience is -.14.

### Voter Heterogeneity in the Developing World

Despite the fact that past scholarly work has critiqued the use of interaction effects within binary response models (Barry and Barry, 1999)[42], the present thesis assumes that the relationship between economic perceptions and intention to vote for the incumbent is conditional on socio-demographic variables. In other words, the effect of economic perceptions on the probability of intending to vote for the incumbent depends on one's sex, age, and level of education. Table 5.7 presents the results for voter heterogeneity. Again with a binary response model, the coefficients provide limited inferential capability. Looking at the coefficients in the sociotropic model, one can see that all but the multiplicative term between economic perceptions and sex are statistically significant. The direction of the interaction terms are in the expected direction. When

[42] The authors essentially note that non-linear models essentially produce interactionary relationships between independent variables.

Table 5.6: Cross-regional, micro-level economic voting

| Variables | Full model | Sociotropic Model | Odds Ratio | Marginal Effects |
|---|---|---|---|---|
| Retrospective, Sociotropic | .21*** (.01) | .20*** (.01) | 1.22*** (.01) | .05*** (.00) |
| Retrospective, Egotropic | -.03* (.01) | | | |
| Prospective, Sociotropic | .30*** (.01) | .29*** (.01) | 1.33*** (.01) | .07*** (.00) |
| Prospective, Egotropic | -.02 (.01) | | | |
| Sex | -.07*** (.02) | -.07*** (.02) | .93*** (.02) | -.02*** (.01) |
| Age Category | | | | |
| 36 – 49 | .09*** (.02) | .09*** (.02) | 1.10*** (.03) | .02*** (.01) |
| 50 – 64 | .13*** (.03) | .12*** (.03) | 1.13*** (.03) | .03*** (.01) |
| 65 and above | .07* (.04) | .09** (.04) | 1.09** (.04) | .02** (.01) |
| Education | | | | |
| Informal schooling | .14* (.07) | .14* (.07) | 1.15* (.09) | .03* (.02) |
| Some/completed primary school | .04 (.04) | .04 (.04) | 1.04 (.04) | .01 (.01) |
| Some/completed secondary school | .02 (.03) | .01 (.03) | 1.01 (.03) | .00 (.01) |
| Some/completed university | -.29*** (.05) | -.31*** (.05) | .73*** (.03) | -.08*** (.01) |
| Post-graduate | -.58*** (.22) | -.59*** (.21) | .56*** (.12) | -.14*** (.05) |
| N | 40, 521 | 41, 857 | 41,857 | 41,857 |
| Percentage predicted correctly | 59.91% | 60.03% | 60.03% | |
| Percentage error reduction | 18.65% | 18.98% | 18.98% | |
| Log Likelihood | -27,045.82 | -27,926.70 | -27,926.70 | |
| LR $x^2$ | 2,074.00*** | 2,165.37*** | 2,165.37*** | |
| Pseudo $R^2$ | .037 | .037 | .037 | |

Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$

models include interaction variables, the interpretation of additive terms becomes somewhat tricky. Thus, attention is given to multiplicative terms to understand the conditional effects. Looking at Table 5.7 we first notice that sex fails to have a significant conditional relationship on economics and vote intention. Economic voting at the micro-level is not conditional on one's sex. The multiplicative term of education and retrospective economic perceptions is not only significant but also in the expected direction. The marginal effects are very similar in magnitude across both education and age. For all the interaction terms, the marginal effect is .01

### Economic Voting Within a Hierarchical Model

Hierarchical modeling of micro-level economic voting is becoming more common (for example, see Bratton el al., 2012; Singer and Gelineau, 2012). The purpose of a multi-level approach is to "account for variation in a dependent variable that is measured at the lowest level of analysis by considering information from multiple levels of analysis" (Steenbergen and Jones, 2002). Steenbergen and Jones (2002) note that a multi-level analysis allows the researcher to (1) produce a single comprehensive model, (2) explore causal heterogeneity, and (3) increase generalizability of the inferences. Hierarchical modeling assumes a nesting process whereby the lowest level of analysis is nested within the higher level analysis, and so forth. Thus, multilevel models can take on several levels, although two and three-level models are the most common.

With the study of economic voting, a multilevel model answers the question as to whether support for the incumbent party at the individual-level varies while adjusting for

Table 5.7: Individual-level Voter Heterogeneity

| Variables | Sociotropic Model | Odds Ratio | Marginal Effects |
|---|---|---|---|
| Retrospective, Sociotropic | .09** (.04) | 1.09** (.04) | .02** (.01) |
| Prospective, Sociotropic | .09** (.03) | 1.09** (.04) | .02** (.01) |
| Sex | -.08*** (.02) | .92*** (.02) | -.02*** (.01) |
| Age Category | .04*** (.01) | 1.04*** (.01) | .01*** (.00) |
| Education Category | -.05*** (.01) | .95*** (.02) | .01*** (.00) |
| Retrospective, Sociotropic * Age (Categorical) | .02** (.01) | 1.02** (.01) | .01** (.00) |
| Prospective, Sociotropic * Age (Categorical) | .03*** (.01) | 1.03*** (.01) | .01*** (.00) |
| Retrospective, Sociotropic * Education (Categorical) | .03*** (.01) | 1.03*** (.01) | .01*** (.00) |
| Prospective, Sociotropic * Education (Categorical) | .06*** (.01) | 1.06*** (.01) | .01*** (.00) |
| Retrospective, Sociotropic * Sex (Categorical) | .01 (.02) | 1.01 (.02) | .00 (.01) |
| Prospective, Sociotropic * Sex (Categorical) | .02 (.02) | 1.02 (.02) | .00 (.00) |
| N | 41,857 | 41,857 | 41,857 |
| Percentage predicted correctly | 59.98 | 59.98 | |
| Percentage error reduction | 18.88% | 18.88% | |
| Log Likelihood | -27,928.09 | -27,928.09 | |
| LR $x^2$ | 2,162.53*** | 2,162.53*** | |
| Pseudo $R^2$ | .04 | .04 | |

Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$

Table 5.8: Multi-level Economic Voting

| Variables | Sociotropic Model | Odds Ratio | Growth Model |
|---|---|---|---|
| Retrospective, Sociotropic | .18*** (.01) | 1.19*** (.01) | |
| Prospective, Sociotropic | .24*** (.01) | 1.27*** (.01) | |
| Sex | -.07*** (.01) | .93*** (.02) | |
| Age Category | | | |
| 36-49 | .05* (.03) | 1.05* (.03) | |
| 50-64 | .05 (.03) | 1.05 (.03) | |
| 65 and above | -.05 (.04) | .96 (.04) | |
| Education | | | |
| Informal schooling | .09 (.09) | 1.09 (.09) | |
| Some/completed primary school | -.03 (.04) | .97 (.04) | |
| Some/completed secondary school | -.19*** (.04) | .83*** (.03) | |
| Some/completed university | -.36*** (.05) | .70*** (.04) | |
| Post-graduate | -1.37*** (.22) | .25*** (.06) | |
| Level-Two (random intercept estimates) | | | |
| Growth Rate | .26 (.04)[43] | | 1.44 (.20) |
| Inflation | .17 (.05)[44] | | |
| Unemployment | .27 (.05)[45] | | |
| N | 41,857 | 41,857 | 41,857 |
| Percentage predicted correctly | | | |
| Percentage error reduction | 19.94% | | |
| Log Likelihood | -24,717.64 | | |
| Wald $x^2$ | 1,126.21*** | | |
| LR Chi2 | 6,445.30*** | | |

Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$

[43] Variance components for the random intercept
[44] Variance components for the random intercept
[45] Variance components for the random intercept

an aggregate[46] or macro-level influence. Table 5.8 shows the results for the hierarchical model for the full world-wide model. The multi-level model behaves in the predicted manner as evidenced by two statistical outputs. First, we can infer that the multi-level model provides a better fit than a single-level logistic regression model. This is evident by significance of the LR test. Second, using the interclass correlation coefficient (ICC) we can infer whether our model violates the assumption that our predictors are uncorrelated with any random component. Looking at the ICC, we see that country random effects parameter comprises approximately thirty-three percent of the total residual variance. A high interclass correlation coefficient translates into a greater likelihood that the variation in the sample occurs in the higher level (Baumlet et al. 2003: 125).

Having demonstrated that a multi-level analysis provides a "better" approach towards understanding micro-level economic voting, we next move to examination of the results for specific covariates in the model. It is not surprising to see that the coefficients for both retrospective sociotropic and prospective sociotropic perceptions are statistically significant and in the expected direction, after adjusting for level-2 (country-level) effects of growth, inflation and unemployment. Looking at the odds ratio, we see a similar pattern of prospective sociotropic evaluations have stringer effects in magnitude compared to retrospective sociotropic evaluations.

The control variables perform as in previous models. The coefficient for sex is negatively associated with incumbent vote intention and retains its statistical significance,

[46] In a multi-level mixed effected model, the level one covariates along with the constant term are the fixed effects and at level two we specify the random effects.

suggesting that males are less likely to vote for incumbents. The relationship between age and vote intention is only statistically significant for voters who are between the ages of thirty-six and forty-nine. Finally, education too behaves in the manner demonstrated previously. As an individual level of education increases, he or she becomes less likely to intend to vote for the incumbent.

**Region-Specific Results**

Region-specific models allow us to provide political controls in order to better understand how economic perceptions affect vote intention. The likelihood ratio for the model chi-square suggests that both the Latin American and African models are significant. Africa also has a very high percentage of observations that are correctly predicted, measuring at 95.3 percent. The percentage of error reduction in the Africa model is approximately 88.8 percent. The error reduction for the Latin America model is 15.4%.

The coefficients for retrospective sociotropic and prospective sociotropic evaluations continue to remain statistically significant and in the expected direction in both models (Tables 5.9 and 5.10). For Latin American voters, the marginal effect for retrospective sociotropic evaluations shows that a one unit change in the scale increases the probability of voting for the incumbent by .06. The marginal effect for this covariate in the Africa model is .03, suggesting that the influence of retrospective sociotropic evaluations is stronger in Latin America in comparison to the African sample.

Looking at prospective sociotropic evaluations, we see that they are higher in magnitude than retrospective sociotropic evaluations for both African and Latin

American voters. Here too we see that the marginal effects are larger in the Latin American sample (.08) than for African voters (.05). In short, the relationship between economic evaluations and incumbent vote intention are stronger in magnitude within the Latin American electorate than the African electorate.

The socio-demographic control variables illustrate further differences between African and Latin American voters. First, while Latin American men are less likely to support the incumbent party, the coefficient for sex in the African model fails to achieve statistical significance. Second, while age in the Latin American model is not significant, in the Africa model older respondents are more likely to intend to vote for the incumbent. Finally, education provides another difference between African and Latin American voters. Latin American respondents with university experience are less likely to intend to vote for the incumbent. In the Africa model, education fails to achieve statistical significance.

Despite the fact that the Afrobarometer and Latinobarometer lack a common item to measure political allegiance, partisan identification and ideology are measurable proxies to provide an understanding of how political controls affect incumbent vote intention. In the Latin American context, right-wing ideology is inversely associated with vote intention. Specifically for each unit change towards the right, the odds of intending to vote for the incumbent decreases by one-tenth of one percent.

Table 5.9: Micro-level Latin American economic voting

| Variables | Sociotropic Model | Odds Ratio | Marginal Effect |
|---|---|---|---|
| Retrospective, Sociotropic | .23*** (.02) | 1.26*** (.02) | .06*** (.00) |
| Prospective, Sociotropic | .31*** (.02) | 1.36*** (.02) | .08*** (.00) |
| Sex | -.06** (.03) | .94** (.03) | -.02** (.01) |
| Age Category | | | |
| 36 – 49 | .03 (.03) | 1.03 (.04) | .01 (.01) |
| 50 – 64 | .04 (.04) | 1.04 (.04) | .01 (.01) |
| 65 and above | .02 (.05) | 1.02 (.04) | .004 (.01) |
| Education | | | |
| Some/completed primary school | -.05 (.06) | .95 (.05) | -.01 (.01) |
| Some/completed secondary school | -.002 (.05) | .998 (.05) | -.001 (.01) |
| Some/completed university | -.29*** (.06) | .75*** (.05) | -.07*** (.02) |
| Ideology | -.002*** (.00) | .998*** (.00) | .001*** (.00) |
| N | 21, 114 | 21, 114 | 21, 114 |
| Percentage predicted correctly | 61.51% | 61.51% | |
| Percentage error reduction | 15.36% | 15.36% | |
| Log Likelihood | -13,930.054 | -13,930.054 | |
| LR $x^2$ | 1,237.09*** | 1,237.09*** | |
| Pseudo $R^2$ | .04 | .04 | |

Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$

Table 5.10: Micro-level African economic voting

| Variables | Sociotropic Model | Odds Ratio | Marginal Effect |
|---|---|---|---|
| Retrospective, Sociotropic | .15*** (.04) | 1.16*** (.05) | .03*** (.01) |
| Prospective, Sociotropic | .21*** (.04) | 1.24*** (.05) | .05*** (.01) |
| Sex | .02 (.08) | 1.02 (.09) | .005 (.02) |
| Age Category | | | |
| 36 – 49 | .18* (.10) | 1.20* (.12) | .04* (.02) |
| 50 – 64 | .20 (.13) | 1.22 (.16) | .05 (.03) |
| 65 and above | .31* (.18) | 1.36* (.24) | .07* (.04) |
| Education | | | |
| Informal schooling | .20 (.22) | 1.22 (.27) | .04 (.05) |
| Some/completed primary school | .08 (.13) | 1.08 (.15) | .02 (.03) |
| Some/completed secondary school | .08 (.14) | 1.08 (.15) | .02 (.03) |
| Some/completed university | .07 (.26) | 1.08 (.28) | .02 (.06) |
| Post-graduate | -.60 (.60) | .55 (.33) | -.15 (.15) |
| Ethnicity | .12*** (.04) | 1.13*** (.04) | .03*** (.01) |
| Rural | .01 (.09) | 1.01 | .003 (.02) |
| Party ID | 5.97*** (.08) | 390.84*** (32.65) | 1.35*** (.02) |
| N | 13,313 | 13, 313 | 13, 313 |
| Percentage predicted correctly | 95.30% | 95.30% | |
| Percentage error reduction | 88.75% | 88.75% | |
| Log Likelihood | -2,473.9906 | -2,473.9906 | |
| LR $x^2$ | 13,148.18*** | 13,148.18*** | |
| Pseudo $R^2$ | .73 | .73 | |

Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$

The African model includes a greater number of controls, including ethnicity, rural setting and political identification. With regard to ethnic saliency, we see that the coefficient is statistically significant in the expected direction. The positive association between ethnic saliency and incumbent vote intention signals that respondents who consider themselves primarily and completely within their national identity as more likely to intend to vote for the incumbent than those individuals who identify solely or primarily with their ethnic group. Looking at the marginal effects, we see that identifying with one's national identity increases the probability of intending to vote for the incumbent by three percentage points. The coefficient for rural setting, fails to reach statistical significance. This suggests that residing in a rural area had no influence on likelihood of intending to vote for the incumbent.

Finally, the results suggest that partisan identification has a large effect on vote intention. The covariate for partisan identification is positively associated with vote intention and is statistically significant at the .01 level. The positive association means that individuals associated with the incumbent party were more likely to intend to vote for that party in comparison to respondents affiliated with other parties. Looking at the marginal effect, we see that moving from the nonincumbent to incumbent party (i.e. a change from 0 to 1) increases the probability of intending to vote for the incumbent by 1.35, a very large effect. Relatively speaking, the marginal effects are the largest in the present study, suggesting that party identification in Africa is clearly the prominent voter determinant.

**Discussion**

In the previous section, the various micro-level models demonstrated that prospective sociotropic economic perceptions have a stronger effect than retrospective sociotropic perceptions. Why is that so? Previous research on the relationship between retrospective and prospective economic perceptions has demonstrated that they are linked to the incumbency-status of a party (Nadeau and Lewis-Beck, 2001; Singer and Carlin, 2013). If the incumbent party either lacks a proper time horizon, or if the candidate is not running for reelection then the voters, in the absence of information (governing record), tend to be prospective. However, if the incumbent party has accumulated a large amount of time in office, then voters tend to be retrospective. The fact that the marginal effects for the prospective tendencies are larger than retrospective ones is in line with the literature on political parties in the developing world, which demonstrate their volatile nature in terms of platforms and durability.

In Table 5.7 it was noted that socio-demographic variables cast a mediating affect between economic perceptions and vote intention. The presence of voter heterogeneity in the developing world is in line with prior works (Gomez and Wilson, 2006; Singer and Gelineau, 2010). Within Latin America and Africa, economic voter heterogeneity implies that age and education have a positive conditional impact on the relationship between economic perceptions and vote intention. Specifically, those who are elderly and with higher levels of education are more likely to vote for the incumbent based on a positive retrospective sociotropic, and prospective sociotropic, assessment of economic wellbeing.

The fact that more educated voters are more likely to engage in economic voting signals that economic voting in the developing world is dependent upon level of education. In order to properly associate one's vote with sociotropic perceptions, one

must possess knowledge of conditions in the local or national economy. Thus, if an individual lacks the proper educational tools then basing vote intention off of sociotropic perceptions becomes ever more difficult. Interestingly, when the level of education is not interacted with economic perceptions, we see a negative association between education and vote intention. Why is this so? One explanation is that individuals that lack proper educational tools also have lower income. Furthermore, lacking a durable means of income makes individuals more susceptible to form of patronage. If voting for the incumbent is due to patronage then those with higher education will be less likely to vote for incumbent as their economic needs are more likely satisfied than those without proper forms of education. In short, those who are more educated are less likely to vote for the incumbent, but when education is interacted with economic perceptions, the educated are more likely to base their intention to vote on economic perceptions.

Aside from education, age also has a mediating effect on the economic vote. An explanation of the mediating effect of age can be based on the fact that the developing world often lacks a functioning social safety net. As noted previously, the lack of social safety nets was one of the factors that might produce greater effects of economic voting. Indeed, the mediating effect of age and economic perceptions can be the result of the fact that a lack of social safety nets causes individuals to increasingly base their vote on economics as they age. In a country without proper social safety nets, the elderly become the most economically vulnerable citizens. Thus, we can expect the elderly to increasingly rely on economics as a source of voting behavior.

In the Latin American context, the negative association between ideology (when higher scores are associated with right self-placement) and vote intention implies that an

individual who identifies himself or herself with the "left" is more likely to vote for the incumbent. This is of little surprise given the abundance of "left" leaning incumbents in Latin America

In the African context, ethnic saliency is negatively associated with vote intention. This is not surprising as Bratton et al. (2012) found that ethnic saliency was negatively associated with intention to vote for the ruling party. Respondents who identified themselves primarily in ethnic heuristics were less likely to vote for the incumbent. Table 5.10 confirms Bratton et al.'s results with a positive association between national self-identity and vote for the incumbent. Specifically, the change in probability for intention to vote for one unit change in ethnic saliency is three percentage points.

Perhaps the most unusual result of African economic voting models is the association between party identification and the vote. The lack of a durable party system in developing countries have been noted by scholars as a reason to approach the study of voting behavior in a different theoretical perspective. However, in the African context we see that party identification is a strong predictor of vote intention. Although the model includes only two survey waves (2005 and 2008), the results demonstrate that political affiliation is the leading predictor of the vote. A correlation matrix (not shown here) demonstrates a correlation effect of .90 between vote and party identification. The strength of party ID is also exemplified in a large McFadden's pseudo R-squared of .73.

Overall, the micro-level methodological framework provides a breadth of information on individual economic voting behavioral traits. Cross-regionally, voters

place more emphasis on prospective sociotropic evaluations than retrospective ones. In the developing world, economic voter behavior is heterogeneous with age and education contributing to higher levels of the economic vote. The inclusion of a hierarchical model provides evidence that the modeling of individual-level economic voting should take place within a multi-level model, accounting for level-two – aggregate – indicators. Region-specific models allows for the inclusion of political controls which then allow for a much proper understanding of the economic motives in voter behavior. Political preference controls behave in the expected manner and in Africa is a prominent predictor of the vote. In short, the models demonstrate that economic voting takes place in Latin America and Africa, with an emphasis on prospective sociotropic perceptions.

**Asymmetry of Voting**

Do voters punish incumbent for economic downturns and reward incumbents for a prosperous economy? Table 5.11 demonstrates that voters do, in fact, punish incumbents for economic regressions and reward for economic progressions. The coefficients for bad economic times are negatively associated with incumbent vote intention, demonstrating the punishment mechanism of economic voting. The coefficients for good economic times are positively associated with incumbent vote intention, demonstrating the reward mechanism of economic voting.

While the results provide evidence for a reward-punishment approach to economic voting, the magnitude and probability of punishment and reward differs. We see when voters assess the economy retrospective they tend to place more weight on punishment than reward. Thus, voters are more critical of the economy in retrospective fashion. The marginal effect for retrospective-good translates into a .05 increase in the

probability of voting for the incumbent. But the change in probability for the intention to vote for the incumbent under a regressing economy is negative eight percentage points. Thus, the probability of punishment under what is perceived as a bad economy is almost double than reward under a good economy. In short, retrospective voters tend to exhibit a *negativity bias*.

Table 5.11: Asymmetry of Voting

| Dependent Variable: Incumbent share of total vote in national assemblies | | |
|---|---|---|
| Covariate | Coefficients | Marginal Effects |
| | | |
| Retrospective-Sociotropic Good | .21***<br>(.03) | .05***<br>(.01) |
| Retrospective-Sociotropic Bad | -.33***<br>(.03) | -.08***<br>(.01) |
| Prospective-Soctiotropic Good | .51***<br>(.03) | .13***<br>(.01) |
| Prospective-Sociotropic Bad | -.26***<br>(.03) | -.07***<br>(.01) |
| n-size<br>Percentage predicted correctly<br>Percentage error reduction<br>Log Likelihood<br>LR $x^2$<br>Pseudo R-squared | 42,038<br>59.73%<br>18.39%<br>-28,065.964<br>2,137.97***<br>.04 | 42,038 |
| Standard errors are in parentheses; ***$p < 0.01$, **$p < 0.05$, *$p < .10$ | | |

A prospective economic outlook provides varying results. When voters assess the economy prospectively, they tend to reward more than punishment. Looking at the margin effect, we see that change in probability for intention to vote for the incumbent under an improving economic is thirteen percentage points. But the change in probability for the intention to vote for the incumbent under a regressing economy is negative seven percentage points. Prospective voter seem to be demonstrated a case of *positivity* bias.

The results parallel works on asymmetry of behavior. While there is a clear skewness of scholarship demonstrating a negativity bias, the scope with which such experiments take place are either hypothetical or retrospective. People tend to place more weight on negative events, but individuals also demonstrate optimism for the future.

## Conclusion

The present chapter demonstrated that economic voting in developing countries exists both at the macro and micro-level. The incumbency does pay a price or reap the benefits of macroeconomic fluctuations. The study also found that in macro-level models, growth is a prominent determinant of the economic vote. The influence of inflation and unemployment, while present, is strictly time dependent. Within regional economic voting, the significance of growth rate varied and was not present in Africa. These two findings add to the wider account of economic voting as being unstable and specific to certain time periods.

With regard to micro-level economic voting, the chapter confirms the saliency of retrospective sociotropic and prospective sociotropic evaluations. With regard to CEVT hypotheses, while the presence of retrospective sociotropic evaluations is confirmed in developing countries, voters tend to also demonstrate prospective sociotropic evaluations, in greater magnitude. This may be primarily due to the fact that incumbent parties are constantly being reformed, rebranded and replaced, created a prospective-oriented electorate. The micro-level study also demonstrates that voters are heterogeneous in their support for the incumbent.

Economic voting in the developing world differs in magnitude. The last part of the chapter demonstrated that voters tend engage in negativity bias when evaluating the economy retrospectively. However, in prospective evaluations, voters exhibited a positivity bias. Relying on the study of social psychology puts the results in perspective. While there is a plethora of studies that show individuals place greater weight on negative (as opposed to positive) information and events, people also tend to be positive-minded, or optimistic, about prospective events. Individuals tend to retrospectively remember bad events than good events. Thus, voters too place greater emphasis on negative economic events than positive ones. However, voters also demonstrate positive-mindedness about future economic prospects.

Unfortunately, prospect theory only partially explains the asymmetry of voting in the developing world. While its cost-oriented assumption accurately predicts retrospective voting behavior, it is unable to explain the positivity bias associated with prospective voting.

# Chapter 6 – Conclusion

The application of economic voting in the form of CEVT has produced a great deal of scholarship that supports the theory in various developed countries. Indeed, the issue of whether economic cognitive heuristics are part of the vote function in developed states is considered a settled research debate within the study of comparative politics. Voters, for the most part, act in typical CEVT-oriented fashion, in that they assume a retrospective sociotropic-orientation, are incumbent-oriented in their vote, engage in a punishment-reward calculus of the incumbent and dish out reward and punishment in an even-handed manner. Voters in developed countries tend to also demonstrate symptoms of "withdrawal" in voter turnout during epochs of economic downturns (Radcliff, 1992). Despite the overwhelming evidence, economic voting in developed countries varies significantly across national contexts and over time (Duch and Stevenson, 2006). Such variation has been primarily attributed to varying political systems between countries.

## Summary of the Findings

The present thesis demonstrated theoretically and empirically that voters in developing countries partially diverge from the CEVT type of voting behavior. Voters in developing countries have demonstrated greater dynamism in their perceptions of the economy, a pattern which challenges the current theory. Chapter two outlined the varying economic perceptions voters undertake in their assessment of the incumbent. While voters in developed countries are said to be of retrospective and sociotropic type, voting behavior in developing countries is much more mixed, with prospective economic voting being a formidable method of economic evaluations. The hypotheses tested derived from

CEVT were partially applicable to developing countries in that voters were sociotropic agents. However, voters in developing countries are displayed prospective characteristics, and with greater magnitude in probabilistic outcomes.

Furthermore the underlying theoretical logic of CEVT – utility expectations theory (UET) – presupposes an "absolute" maximization of individual utility. The notion of decision-making under an "absolutist" framework has been criticized by such behavioral economists as Amos Tversky and Daniel Kahnemann (1979), who demonstrate that individual decision-making is marked by "relative" gains and losses in utility. As such, from a theoretical standpoint, the findings called into question the application of UET in economic voting behavior, noting that behavior in the voting booth – the intuition to punish or reward the incumbent – is perhaps more accurately interpreted by the relativist, cost-oriented assumption of prospect theory than by notion of absolute utility maximization.

Methodologically, the thesis presented a mixed approach to the study of economic voting. Indeed, in order to properly assess the impact of economics on elections, a combination of macro and micro-level frameworks are required in order to gain a "complete" understanding of the impact of economics, both at the state-level and at the individual-level. In order to avoid the pitfall of ecological fallacy, it was determined to approach the issue of voter asymmetry solely from a micro standpoint. Finally, a cross-level methodological framework was instituted so as to understand the relationship between individual-level and state-level economic predictors of the vote.

Empirically, the thesis provided several underlying elements of economic voting in the developing world. First, both macro and micro-level regression models demonstrated a relationship between economics and the vote. At the macro-level, the growth rate served a paramount indicator of economic voting behavior, triumphing inflation and unemployment. The significance of growth rate in a cross-regional analysis was also noted by Wilkin et al. (1997) in their cross-sectional assessment of economic voting in a world-wide sample[47]. Second, while inflation was also a predictor of the economic vote, its significance was time-specific. In other words, inflation seemed to matter during periods of economic crisis.

At the micro-level, voters in developing countries parallel themselves with their counterparts in developed countries by assessing economic perceptions in sociotropic fashion. However, voters diverge from CEVT by reacting in both a retrospective and prospective fashion, though the marginal effect of the latter seems to be higher than the former both cross-regionally and within Latin America and Africa. While lack of a comparable indicator for political affiliation prevents me from controlling for politics at the cross-regional level, political preferences in the form of ideology or party identification provide significant controls of voting behavior, especially within the African region, where party ID seems to be the dominant predictor of the vote. The significance of political affiliations in Africa and Latin America calls into question the perspective that party identification lacks significance in the developing world. Although the present study demonstrated the significance of political affiliation, the source of such

[47] Wilkin et al. (1997) used a cross-sectional observation on thirty-eight countries. They avoided pooled country elections due to the fact that a time sequence results in the issue of autocorrelation. Thus, the authors relied on one election per country to avoid cases of serial correlation.

affiliation (whether it's platform-based or patronage-based) is in question and beyond the scope of the thesis.

Fourth, voters in developing countries behave in a heterogeneous fashion. Voter heterogeneity in economic voting has been affirmed in prior works on developing countries (e.g. Duch, 2001; Singer & Gelineau, 2010). The present thesis has demonstrated that elder and more educated voters tend to rely more on economic perception-based heuristics when assessing their intention to vote for the incumbent.

Finally, while voters do reward and punish the incumbent for economic prosperity and downturns, the magnitude of the punishment and reward is asymmetrical. Voter behavior in asymmetrical fashion has been documented in both retrospective and prospective. Specifically, when voters assess the economy in a retrospective manner, they tend to assign greater magnitudes of punishment than reward. This may be attributable to the fact that individuals tend to place greater negative weight to events in the immediate past. Individuals tend to recall negative events at a more frequent pace than positive events. In the political economy realm, it is probable to assume that voters will more readily recall negative retrospective economic event than a positive. However, when assessing the role of the economy prospectively, voters tend to be more positively-oriented, in that they assign greater magnitude of reward than punishment. This may be due to the fact that voters tend to optimistic about the future.

This thesis demonstrated that the choice theory-inspired CEVT is ill-equipped at providing a theoretical setting in the developing country context. Voters not only place emphasis on prospective perceptions in greater magnitudes, but also exhibit patterns of

voter asymmetry. Those patterns vary when assessment of the economy occurs in retrospective fashion than in prospective fashion. Retrospectively, voters engage in negativity bias, while prospectively they assume traits of positivity bias.

While prospect theory provides a more complete understanding of economic voting than its counterpart, its limitation is its inability to explain the positive bias of voters when assessing the economy prospectively.

**Limitations of the Study**

The following thesis attempted to provide a comprehensive account of economic voting in the developing world. In doing so, the paper overlooked several key issues that merit further empirical study including endogeneity, assessment of party coalitions heterogeneously and the influence of the media. All these issues have not been addressed much in studies of developed countries, much less in developing countries. In assuming that economic perceptions are predictors of voting behavior, research has overlooked as to how individual perceptions are formed, and whether they are influenced by the media. In developed countries, the scarce amount of literature that has tackled the issue of media effects in economic voting has failed to reach a consensus on the impact of media on economic perceptions. Of the extent works, many have concentrated on popularity functions. While evidence that the media mediates the economic vote has been demonstrated in the 1992 U.S. presidential election (Edwards III et al., 1995; Hetherington, 1996), other works have demonstrated mixed results in the issue of the mediation of the media (Malhotra and Krosnick, 2007).

Concentration on the effects of the media can improve understanding of the relationship between economics and the vote. Media networks tend to give greater news coverage towards negative economic news during non-elections years (Harrington, 1989). If negative economic news events dominate the airwaves, then the individuals who obtain their information of the economy through media outlets are more likely to remember and recall negative economic events over positive ones, thus impacting their economic vote.

In the developing world, the empirical assessment of the media's role in the economic vote is more complex. It is not surprising to find media outlets in Eastern Europe and Central Asia dominated by incumbent-aligned oligarchs whose control of economic information is heavily skewed towards positive-based news. Thus, it is much more difficult to find an "impartial spectator" news outlet that can provide objective economic news reels.

In addition, the current thesis' treatment of party coalitions as a monolithic group is an oversimplification. Although differentiation of coalition members (e.g. primary coalition party v. other coalition parties) is beyond the scope of the research, it is vital to point out that literature in the field has established the fact that the economic vote is not distributed to coalition members in equal fashion (Tucker, 2001; Akarca and Tansel, 2007). Voters seem to target primary coalition members, or the largest party within an incumbent coalition, while failing to equally assess responsibility to secondary members.

Likewise, the analysis in chapter 5 assumes that the arrow of causality flows from economic perceptions to political behavior. This, however, is a contentious point in

economic voting research. Previous studies have suggested that economic perceptions are endogenous to partisan ideology. Thus, a Republican voter will present a subjective, biased and different interpretation of the economy when there is a Democratic administration, then when a Republican is president. Such evidence casts a paralyzing effect on the inferential capability of economic voting. The verdict is still out on the arrow of causality between economics and political behavior.

Finally, the thesis may not have adequately controlled for the institutional context at the macro-level. In chapter 3, I described how literature has shown that a proper cross-national study at the macro-level needs to adjust for institutional differences, referred to in the literature as "clarity of responsibility." The current aim of the thesis was to test CEVT within the developing world. Unfortunately, timeliness did not allow for proper controls of the institutional differences. However, subsequent research on the applicability of the clarity of responsibility thesis within the developing world will provide greater depth on institutional differences between developing countries.

**What We Know and Where Do We Go From Here**

Since 1970 the study of economic voting has evolved into one of the most voluminous research areas within disciplines of comparative political economy and voter behavior. The prominence of the research agenda stems from the fact that economic volatility – which has occurred more frequently – is a potentially influential determinant of the vote. Furthermore, economic indicators such as inflation, unemployment and economic growth have been found to be a consistent influence of voting in comparison to other determinants. As noted by Lewis-Beck and Stegmaier (2000), the volatility of

economic factors creates a greater likelihood that the demise of a particular government comes from economic factors rather than party realignments. Although economic voting in mature democracies is all but settled, the relationship economics and elections in the developing world is still in its scholarly infancy.

With respect to mature democracies, scholarship has produced various inferential conclusions about economic voting. First, as noted, economic voting has been demonstrated throughout both single-country and cross-national studies. Second, despite the overwhelming evidence of economic voting within various countries, the economic voting function is inherently unstable within individuals, countries, and time periods. In other words, its degree of importance varies significantly among individuals, time periods and countries. Third, economic voters are heterogeneous voters.

Despite the fact that research in mature democracies is all but settled, future scholarship can concentrate on the significance of *regionalism* on the economic vote. Lobo and Lewis-Beck (2012) provided us with an exceptional starting point in modeling the influence of EU-*ization* on national economic evaluations. The authors found that when voters analyzed the EU as the responsible party for economic policy within a country, they were less likely to tie economics to the vote. Will the growth of regionalism threaten the durability of the economic vote function? At present, this remains an open question.

The current thesis contributed to the study of economic voting in the following manner. Theoretically, it casts doubt in the applicability of choice theory in the study of economic voting, showing through an analysis of developing countries that prospect

theory provides a more convincing theoretical account of asymmetrical voting. Methodologically, it shows that subsequent micro-level studies must either take place within a hierarchical model or control for the possibility variances between different levels of measurement. Empirically, the findings demonstrated that the developed country-inspired CEVT is not fully applicable to the developing country context. In fact, voters in developing countries not only exhibit prospective evaluations, they also behave in asymmetric fashion. The thesis concludes with a call for future research to address some of the limitations noted above.

| Single-Country Studies in Latin America | | | | | | |
|---|---|---|---|---|---|---|
| **Author(s)** | **Country** | **Time Period** | **Sample n-size** | **Methodology** | **President/ Parties** | **Significant Economic Variables** |
| Stokes, 1996 | Peru | 1990-95 | 41 (p46) | Micro-level | Fujimori | Inflation |
| Weyland, 2000 | Peru | 1992-97 | 24 | Macro-level | Fujimori | Growth |
| Arce, 2003 | Peru | 1985-1997 | 147 (Garcia=59; Fujimori = 88) | Micro-level | Garcia, Fujimori | Inflation & Unemployment |
| Kelly, 2003 | Peru | 1991-2000 | 100 | Micro-level | Fujimori | Prospective |
| Weyland, 1998 | Venezuela | 1989-1993 | 1500 | Micro-level | Perez | Prospective, Pocketbook |
| Weyland, 2003 | Venezuela | 1998 | 847 | Micro-level | Chavez | Prospective, Sociotropic |
| Nadeua et al., 2013 | Venezuela | 2010 | 612 | Micro-level | Chavez | Retrospective |
| Brophy-Baermann, 1994 | Mexico | 1946-1988 | 8 | Macro-level | Leftist parties | Inflation & Income |
| Buendia, 1996 | Mexico | 1988-1993 | 3,500<br>2,500<br>2,000 | Micro-level | Salinas | Inflation & Unemployment |
| Dominguez & McCann, 1995 | Mexico | 1988-1991 | 1988: 1,426<br>1991: 1,766 | Micro-level | PRI, PAN | Prospective, pocketbook |
| Germano, 2013 | Mexico | | 767 | Micro-level | Vote participation | - |
| Canton & Jorrat, 2002 | Argentina | 1995-1999 | 1995: 246<br>1999: 906 | Micro-level | Menem (PJ) | Retrospective, sociotropic |
| Remmer & Gelineau, 2003 | Argentina | 1983-1989 | Prov. Gov: 86<br>Prov. Dep: 106<br>Nat. Dep: 174 | Macro-level | incumbent | Inflation |
| Anderson et al., 2003 | Nicaragua | 1990 | 3841 | Micro-level | Incumbent | Retrospective (++) and prospective (+) |
| Panzer and Paredes, 1991 | Chile | 1988 | 24 | Macro-level | Presidential Referendum | Unemployment |

| Cross-National Studies in Latin America | | | | | |
|---|---|---|---|---|---|
| **Author(s)** | **Country** | **Time** | **Sample n-size** | **Methodology** | **SEV[48]** |
| Remmer, 1991 | Argentina, Bolivia, Colombia, Costa Rice, Dominican Republic, Ecuador, El Salvador, Honduras, Nicaragua, Peru, Uruguay, Venezuela | 1982-1990 | 21 presidential elections | Macro-level | Inflation, exchange rate |
| Roberts & Wibbels, 1999 | Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rice, Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela | 1980-1997 | 101 (58 legislative elections; 43 presidential elections) | Macro-level | Growth rate |
| Benton, 2005 | Argentina, Bolivia, Brazil, Colombia, Costa Rice, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Peru, Uruguay, Venezuela | 1988-2003 | 39 presidential elections | Macro-level | GDP per capita |
| Johnson & Schwindt Bayer, 2009 | Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama | 1979-2007 | 338 observations | Micro-level | Inflation |
| Johnson & Ryu, 2010 | Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rice, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela | 1980-2006 | 96 presidential elections | Macro-level | Inflation, growth rate |
| Singer & Gelineau, 2010 | Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rice, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela | 1995-2005 | 162 country years 104,435 sample size | Micro-level | GDP Growth |
| Lewis-Beck & Ratto, 2013 | Argentina, Bolivia, Chile, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela. | 1996, 2000, 2004 | 7792, 7591, 7520 | Micro-level | Retrospective, sociotropic |
| Singer & Carlin, 2013 | Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rice, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela | 1995 – 2009 | 152, 630 | Micro-level | SR, SP, ER, EP[49]; Context matters |

[48] Significant economic variables

[49] SR: Sociotropic Retrospective; SP: Sociotropic Prospective; ER: Egotropic Retrospective; EP: Egotropic Prospective

| Single-Country Studies in Central and Eastern Europe | | | | | | |
|---|---|---|---|---|---|---|
| **Author(s)** | **Country** | **Time Period** | **Sample n-size** | **Methodology** | **President/ elections/ Parties** | **Theoretically and Methodologically Significant Economic Variables** |
| Colton, 1996 | Russia | 1995 | 2800 | Micro-level | Parliamentary | Sociotropic, unemployment |
| Warner, 2001 | Russia | 1995 | 72 | Macro-level | Reform parties | - |
| Hesli & Bashkirova, 2001 | Russia | 1991-1997 | 10812 | Micro-level | Yeltsin | Prospective, pocketbook |
| Mishler & Willerton, 2003 | Russia | 1991-2001 | 114 | Micro-level | Yeltsin,Putin | Retrospective, inflation |
| Konitzer-Smirnov, 2003 | Russia | 1996-1997<br>2001-2001 | 35<br>31 | Macro-level | Oblast elections | Real Wages and Real Pensions |
| Richter, 2006 | Russia | 1996 | 1122 | Micro-level | Yeltsin | Wage Arrears (pocketbook) |
| Wade et al., 1993 | Poland | 1991 | 37 | Marco-level | Parliamentary | Unemployment |
| Gibson & Cielecka, 1995 | Poland | 1993 | 49 | Macro-level | Parliamentary | Unemployment |
| Wade et al., 1995 | Poland | 1993 | 49 | Macro-level | Parliamentary | - |
| Przeworski, 1996 | Poland | 1989-1991 | 20 | Macro-level | Reform Plan | Unemployment |
| Bell, 1997 | Poland | 1990-1995 | 49 | Macro-level | 2 pres./ 2 parl. Elections | Unemployment, Income |
| Powers & Cox, 1997 | Poland | 1993 | 1702 | Micro-level | Parliamentary | - |
| Bielasiak & Blunck, 2002 | Poland | 1993 | 854 | Micro-level | Parliamentary | Pocketbook |
| Owen & Tucker, 2010 | Poland | 1997, 2001, 2005 | 1006 | Micro-level | Parliamentary | Retrospective |
| Anderson et al., 2003 | Hungary | 1994 | 700 | Micro-level | Parliamentary | Retrospective (++), prospective (+) |
| Lewis-Beck & Stegmaier, 2009 | Hungary | 1998-2010 | 1998: 26<br>2010: 28 | Macro-level<br>Micro-level | Socialist (MSZP) Party | Unemployment |
| Lippenyi et al., 2013 | Hungary | 1998-2008 | 52503 | Micro-level | Parliamentary | Retrospective, Prospective; Educated voters tend to be pocketbook |
| Coffey, 2013 | Czech Republic | 1995-2008 | 168 | Macro-level | Parliamentary | Unemployment, wages |

| Cross-National Studies in Central and Eastern Europe | | | | | |
|---|---|---|---|---|---|
| **Authors** | **Country** | **Time** | **Sample n-size** | **Methodology** | **Significant economic variables** |
| Pacek, 1994 | Poland, Bulgaria, Czechoslovakia | 1990-1992 | Poland, 1990: 49<br>Poland, 1991: 32<br>Bulgar., 1991: 28<br>Czecho, 1992: 12 | Macro-level | Unemployment |
| Duch, 1995 | USSR, Poland, Hungary, Czechoslovakia | 1990-1991 | USSR: 1561<br>Czechoslovakia: 899<br>Hungary:964<br>Poland: 1462 | Micro-level | Prospective |
| Fidrmuc[50], 2000 | Czech Republic, Hungary, Poland, Slovakia | 1992-1998 | 442 | Macro-level | Prospective |
| Fidemuc[51], 2000 | Czech Republic, Hungary, Poland, Slovakia | 1992-1998 | Czech Republic: 76<br>Slovakia: 38<br>Hungary: 20<br>Poland: 49 | Macro-level | Prospective, Unemployment |
| Harper, 2000 | Lithuania, Bulgaria, Hungary, | 1992-1994 | Lithuania, 1992: 770<br>Hungary, 1993: 582<br>Bulgaria, 1994: 719 | Micro-level | Pocketbook[52] |
| Tucker, 2001 | Russia, Poland, Hungary, Slovakia, Czech Republic | 1990-1996 | 32 | Macro-level | Unemployment, income, industrial growth |
| Duch, 2001 | Hungary & Poland | 1997 | Hungary, 1997: 1498<br>Poland, 1997: 1199 | Micro-level | RS & PS[53] |
| Roberts, 2008 | Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia | 1992-2006 | 34 | Macro-level | Unemployment |

[50] "Economics of Voting in Post-Communist Countries"

[51] "Political Support for Reforms: Economics of Voting in Transition Countries"

[52] In Lithuania (1992), voters were both retrospective pocketbook and prospective pocketbook (although coefficient for the former was higher). Hungarian regression failed to achieve significance and Bulgarian voters were prospective pocketbook (retrospective pocketbook was significant but in the wrong sign). Interestingly, unemployment failed to gain statistical significance but for the post part was in the predicted direction. Aside from Lithuania 1992, sociotropic evaluations were not tested (Harper, 2000:1212).

[53] Economics perceptions are significant with trust and political information (Interaction effect) for Hungary only

| Single-Country Studies in Africa | | | | | | |
|---|---|---|---|---|---|---|
| **Author(s)** | **Country** | **Time Period** | **Sample n-size** | **Methodology** | **President/ elections/ Parties** | **Theoretically and Methodologically Significant Economic Variables** |
| Posner, 2002 | Zambia | 1991,1996 | Macro: 39 | Macro/Micro | Kaunda & Chiluba | poverty |
| Youde, 2005 | Ghana | 1999 | 1957 | Micro-level | NDC | Prospective |
| Tche, 2009 | Cameroon | 1982-2006 | 3 | Macro-level | Paul Biya | GDP growth |

| Cross-National Studies in Africa | | | | | |
|---|---|---|---|---|---|
| **Authors** | **Country** | **Time Period** | **Sample n-size** | **Methodology** | **Significant economic variables** |
| Bratton et al., 2012 | Benin, Botswana, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Namibia, Nigeria, Senegal, South Africa, Tanzania, Uganda, Zambia | 2005 | 23,039 | Micro-level | Prospective, sociotropic |

| Single-Country Studies in Asia | | | | | | |
|---|---|---|---|---|---|---|
| **Author(s)** | **Country** | **Time Period** | **Sample n-size** | **Methodology** | **President/ elections/ Parties** | **Theoretically and Methodologically Significant Economic Variables** |
| Meyer & Malcolm, 1993 | India | 1957-1984 | State: 83<br>National: 7 | Macro-level | Parliamentary | GDP |
| Tandon, 2010 | India | 1991-1996<br>1991-2004 | 472 | Micro-level | Parliamentary | Tariff |
| Wade & Kang, 1990 | Korea | 1988 | 224 | Macro-level | Parliamentary | Unemployment |
| Lee, 2011 | Korea | 2007 | Macro: 5<br>Micro:945 | Macro-level & Micro-level | Presidential | Retrospective & Sociotropic |
| Lee & Glasure, 2012 | Korea | 2003 | 1498-1500 | Micro-level | - | Retrospective & Sociotropic |
| Kang, 2013 | Korea | 2007 | 2206 | Micro-level | Presidential | Sociotropic |
| Hsieh et al., 1998 | Taiwan | 1996 | 1003 | Micro-level | Presidential | Prospective |
| Choi, 2012 | Taiwan | 1996,2004 | 1996: 890<br>2004:1172 | Micro-level | Presidential | Sociotropic (++), pocketbook (+) |
| Carkoglu, 1997 | Turkey | 1950-1995 | 21 | Macro-level | Parliamentary, local | Inflation, unemployment |
| Esmer, 2002 | Turkey | 1999 | 1741 | Micro-level | Parliamentary | No economic voting |
| Hazama, 2006 | Turkey | 2002 | 1807 | Micro-level | Parliamentary | Pocketbook-Retrospective and sociotropic-prospective |
| Akarca & Tansel, 2006 | Turkey | 1950-2004 | 27 | Macro-level | Parliamentary, local | Growth Rate, Inflation |
| Akarca & Tansel, 2007 | Turkey | 1995 | 62 | Macro-level | Parliamentary | Growth Rate |
| Sheafter, 2008 | Israel | 1955-2003 | V function: 14<br>P function: 7-10 | Macro-level | Parliamentary | Growth Rate, unemployment |

## Appendix B: Tabulation between Vote Intention and Economic Perceptions

Tabulation between vote and retrospective-sociotropic

| RetroSocio2 | Vote Intention 0 | 1 | Total |
|---|---|---|---|
| -2 | 3,136 | 1,889 | 5,025 |
| | 62.41 | 37.59 | 100.00 |
| -1 | 6,567 | 4,880 | 11,447 |
| | 57.37 | 42.63 | 100.00 |
| 0 | 6,659 | 7,217 | 13,876 |
| | 47.99 | 52.01 | 100.00 |
| 1 | 5,332 | 7,967 | 13,299 |
| | 40.09 | 59.91 | 100.00 |
| 2 | 901 | 1,338 | 2,239 |
| | 40.24 | 59.76 | 100.00 |
| Total | 22,595 | 23,291 | 45,886 |
| | 49.24 | 50.76 | 100.00 |

Tabulation between vote and prospective-sociotropic

| ProSocio2 | Vote Intention 0 | 1 | Total |
|---|---|---|---|
| -2 | 2,433 | 1,303 | 3,736 |
| | 65.12 | 34.88 | 100.00 |
| -1 | 4,058 | 2,412 | 6,470 |
| | 62.72 | 37.28 | 100.00 |
| 0 | 5,663 | 4,736 | 10,399 |
| | 54.46 | 45.54 | 100.00 |
| 1 | 6,899 | 9,688 | 16,587 |
| | 41.59 | 58.41 | 100.00 |
| 2 | 1,831 | 3,310 | 5,141 |
| | 35.62 | 64.38 | 100.00 |
| Total | 20,884 | 21,449 | 42,333 |
| | 49.33 | 50.67 | 100.00 |

Tabulation between vote and prospective-egotropic

| ProEgo2 | Vote Intention 0 | 1 | Total |
|---|---|---|---|
| -2 | 1,414 | 970 | 2,384 |
| | 59.31 | 40.69 | 100.00 |
| -1 | 2,862 | 1,909 | 4,771 |
| | 59.99 | 40.01 | 100.00 |
| 0 | 6,027 | 5,241 | 11,268 |
| | 53.49 | 46.51 | 100.00 |
| 1 | 8,166 | 10,115 | 18,281 |
| | 44.67 | 55.33 | 100.00 |
| 2 | 2,525 | 3,387 | 5,912 |
| | 42.71 | 57.29 | 100.00 |
| Total | 20,994 | 21,622 | 42,616 |
| | 49.26 | 50.74 | 100.00 |

Tabulation between vote and retrospective-egotropic

| RetroEgo2 | Vote Intention 0 | 1 | Total |
|---|---|---|---|
| -2 | 1,831 | 1,446 | 3,277 |
| | 55.87 | 44.13 | 100.00 |
| -1 | 5,318 | 4,259 | 9,577 |
| | 55.53 | 44.47 | 100.00 |
| 0 | 8,472 | 8,784 | 17,256 |
| | 49.10 | 50.90 | 100.00 |
| 1 | 5,991 | 7,623 | 13,614 |
| | 44.01 | 55.99 | 100.00 |
| 2 | 1,112 | 1,352 | 2,464 |
| | 45.13 | 54.87 | 100.00 |
| Total | 22,724 | 23,464 | 46,188 |
| | 49.20 | 50.80 | 100.00 |

A tabulation of perceptions of the economy and the vote demonstrates that, for the most part, economic perceptions behave in the predicted manner with vote intention. However,

with respect to *retrospective egotropic* evaluations (table 4.6) higher evaluation of personal economic well being doesn't necessarily result in greater probability of incumbent vote. In fact, as positive evaluations of retrospective personal economic well-being increases the likelihood of vote intention actually decreases! Specifically, the probability of voting for the incumbent party (given better economic well-being) is .56, while the probability of voting for the incumbent party (given much better economic well-being is .55. The diminishing effect is strictly limited to *positive* evaluations of personal evaluations of economic well-being, with negative evaluations demonstrating the intended effect.

Furthermore, the coefficients for egotropic evaluations in the full model (table 5.7) are in the wrong direction. Thus, in order to properly identify (and not overestimate) the association between economic perceptions and the vote, it is necessary to omit egotropic evaluations for several reasons. First, egotropic evaluations display an unusual high collinearity with other economic perceptions. Second, egotropic evaluations behave in the opposite manner. Finally, an increase in retrospective, egotropic perceptions doesn't necessarily correspond with higher probability of incumbent vote.

## Appendix C: Country and Election Samples

| **Macro-level data** | |
|---|---|
| **Country** | **Elections Observed** |
| Albania | 2005,2009 |
| Argentina | 1983,1985,1987,1989,1991,1993,1995,1997,1999,2001,2003,2005,2007,2009, 2011 |
| Armenia | 1999 |
| Bangladesh | 1991,1996,2001 |
| Benin | 1991,1995,1999,2003,2007,2011 |
| Bolivia | 1985,1989,1993,1997,2002,2005,2009 |
| Botswana | 1984,1989,1994,1999,2004,2009 |
| Brazil | 1986, 1990, 1994, 1998, 2002, 2006, 2010 |
| Bulgaria | 1991, 1994, 1997, 2001, 2005, 2009 |
| Burundi | 2005, 2010 |
| Cape Verde | 1991, 1995, 2001, 2006, 2011 |
| Chile | 1989, 1993, 1997, 2001, 2005, 2009 |
| Colombia | 1982, 1986, 1990, 1991, 1994, 1998, 2002, 2006, 2010 |
| Costa Rica | 1982, 1986, 1990, 1994, 1998, 2002, 2006, 2010 |
| Croatia | 2000, 2003, 2007, 2011 |
| Dominican Republic | 1982, 1986, 1990, 1994, 1998, 2002, 2006, 2010 |
| Ecuador | 1984, 1986, 1988, 1990, 1992, 1994, 1996, 1998, 2002, 2006 |
| El Salvador | 1985, 1988, 1991, 1994, 1997, 2000, 2003, 2006, 2009, 2012 |
| Gambia | 1982, 1987, 1992 |
| Georgia | 2004, 2008, 2012 |
| Ghana | 2004, 2008, 2012 |
| Guatemala | 1999, 2003, 2007, 2011 |
| Honduras | 1989, 1993, 1997, 2001, 2005, 2009 |
| Hungary | 1990, 1994, 1998, 2002, 2006, 2010 |
| India | 1980, 1984, 1989, 1991, 1996,1999, 2004, 2009 |
| Indonesia | 1999, 2004, 2009 |
| Jamaica | 1980, 1983, 1989, 1993, 1997, 2002, 2007, 2011 |
| Kenya | 2002, 2007 |
| Kosovo | 2010 |
| Latvia | 1993, 1995, 1998, 2002, 2006, 2010, 2011 |
| Lebanon | 2005, 2009 |
| Lesotho | 1993, 2002, 2007, 2012 |
| Liberia | 2011 |
| Lithuania | 1992, 1996, 2000, 2004, 2008, 2012 |
| Macedonia | 1994, 1998, 2002, 2006, 2008, 2011 |
| Madagascar | 1993, 1998, 2002, 2007 |
| Malawi | 1994, 1999, 2004, 2009 |
| Malaysia | 2008 |
| Mali | 1992, 1997, 2002, 2007 |
| Mauritius | 1982, 1983, 1987, 1991, 1995, 2000, 2005, 2010 |
| Mexico | 1997, 2000, 2003, 2006, 2009, 2012 |
| Moldova | 1994, 1998, 2001, 2005, 2008, 2009, 2010 |
| Mongolia | 1992, 1996, 2000, 2004, 2008, 2012 |

| | |
|---|---|
| Montenegro | 2006, 2009, 2012 |
| Namibia | 1994, 1999, 2004, 2009 |
| Nepal | 1999, 2008 |
| Nicaragua | 1990, 1996, 2001, 2006, 2011 |
| Pakistan | 1988, 1990, 1993, 1997 |
| Panama | 1989, 1994, 1999, 2004, 2009 |
| Paraguay | 1993, 1998, 2003, 2008 |
| Peru | 1980, 1985, 1990, 2000, 2001, 2006, 2011 |
| Philippines | 1987, 1992, 1995, 1998, 2001, 2004, 2007, 2010 |
| Poland | 1991. 1993, 1997, 2001, 2005, 2007, 2011 |
| Romania | 1996,2000, 2004, 2008, 2012 |
| Russia | 2003 |
| Senegal | 2001, 2007, 2012 |
| Serbia | 2007, 2008, 2012 |
| Sierra Leone | 2007, 2012 |
| South Africa | 1994, 1999, 2004, 2009 |
| Sri Lanka | 2001 |
| Thailand | 1991, 1992, 1995, 1996, 2001, 2005, 2011 |
| Turkey | 1983, 1987, 1991, 1995, 1999, 2002, 2007, 2011 |
| Ukraine | 1994, 1998, 2002, 2006, 2007, 2012 |
| Uruguay | 1989, 1994, 1999, 2004, 2009 |
| Venezuela | 1983, 1988, 1993, 1998, 2000, 2005 |
| Zambia | 1991, 2008 |

| Micro-level Data | |
|---|---|
| **Country** | **Barometer** |
| Argentina | Latino2005; Latino2008 |
| Benin | Afro 3; Afro 4 |
| Bolivia | Latino2005; Latino2008 |
| Botswana | Afro 3; Afro 4 |
| Brazil | Latino2005; Latino2008 |
| Cape Verde | Afro 3; Afro 4 |
| Chile | Latino2005; Latino2008 |
| Colombia | Latino2005; Latino2008 |
| Costa Rica | Latino2005; Latino2008 |
| Dominican Republic | Latino2005; Latino2008 |
| Ecuador | Latino2005; Latino2008 |
| El Salvador | Latino2005; Latino2008 |
| Ghana | Afro3; Afro 4 |
| Guatemala | Latino2005; Latino2008 |
| Honduras | Latino2005; Latino2008 |
| Kenya | Afro 3; Afro 4 |
| Lesotho | Afro 3; Afro 4 |
| Liberia | Afro 4 |
| Madagascar | Afro 3; Afro 4 |
| Malawi | Afro 3; Afro 4 |
| Mali | Afro 3; Afro 4 |
| Mexico | Latino2005; Latino2008 |
| Namibia | Afro 3; Afro 4 |
| Nicaragua | Latino2005; Latino2008 |
| Panama | Latino2005; Latino2008 |
| Paraguay | Latino2005; Latino2008 |
| Peru | Latino2005; Latino2008 |
| Senegal | Afro 3; Afro 4 |
| South Africa | Afro 3; Afro 4 |
| Uruguay | Latino2005; Latino2008 |
| Venezuela | Latino2005; Latino2008 |
| Zambia | Afro 3; Afro 4 |

Significance of macro-level economic covariates in all trials

| | Cross-Regional Models | | | | Region-Specific Models | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Full Model | Growth Model | Growth & Unemployment Model | Growth & Inflation Model | Latin America Model | Africa Model | CEE Model | Asia Model | Latin America (1980-88) |
| Covariates | | | | | | | | | |
| Growth | .63*** | .50*** | .61*** | .49*** | .47** | -.25 | .73*** | .18 | .63 |
| Unemployment | .23* | | .20 | | | | .03 | | -.014* |
| Inflation | .30 | | | .09 | .48 | | | -2.1 | |



Significance of micro-level economic covariates in all trials

| | Cross-Regional Models | | | | Region-Specific Models | |
|---|---|---|---|---|---|---|
| | Full Model | Sociotropic Model | Voter Heterogeneity Model | Multi-level Model | Latin America Model | Africa Model |
| Covariates | | | | | | |
| Retrospective, Sociotropic | .21*** | .20*** | .09** | .18*** | .23*** | .15*** |
| Retrospective, Egotropic | -.03* | | | | | |
| Prospective, Sociotropic | .30*** | .29*** | .09** | .24*** | .31*** | .21*** |
| Prospective, Egotropic | -.02 | | | | | |

***$p < 0.01$, **$p < 0.05$, *$p < .10$

## Appendix E. Comparison of LDV and AR1 Methods

| | Cross-Regional Models | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Full Model | | Growth Model | | Growth + Unemployment Model | | Growth + Inflation Model | |
| | LDV | AR1 | LDV | AR1 | LDV | AR1 | LDV | AR1 |
| Covariates | | | | | | | | |
| Growth | .63*** | .68*** | .50*** | .62*** | .61*** | .64*** | .49*** | .61*** |
| Unemployment | .23* | .33* | | | .20 | .27 | | |
| Inflation | .30 | .17 | | | | | .09 | -.25 |

| | Region-Specific Models | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Latin America Model | | Africa Model | | CEE Model | | Asia Model | |
| | LDV | AR1 | LDV | AR1 | LDV | AR1 | LDV | AR1 |
| Covariates | | | | | | | | |
| Growth | .46** | .49* | -.25 | .08 | .73*** | .62*** | .18 | .23 |
| Unemployment | | | | | .03 | .15 | | |
| Inflation | .48 | -.04 | | | | | -2.1 | .996 |

***$p < 0.01$, **$p < 0.05$, *$p < 0.10$

References

Acock, Alan C. 2012. *A Gentle Introduction to Stata* (3rd edition). Texas: Stata Press

African Elections Database. 2012. Retrieved from http://africanelections.tripod.com/index.html (Accessed: October 21, 2013).

Aguilar, Edwin Eloy and Alexander Pacek. 2000. "Macroeconomic Conditions, Voter Turnout, and the Working-Class/Economically Disadvantaged Party Vote in Developing Countries." *Comparative Political Studies.* 33(8): 995-1017.

Akarca, Ali T. and Aysit Tansel. 2006. "Economic Performance and Political Outcomes: An Analysis of the Turkish Parliamentary and Local Election Results between 1950 and 2004" *Public Choice.* 129(1/2): 77-105.

Akarca, Ali T. and Aysit Tansel. 2007. "Social and Economic Determinants of Turkish Voter Choice in the 1995 Parliamentary Election" *Electoral Studies.* 26(3): 633-647.

Alt, James E. and Kenneth A. Shepsle. 1990. "Editor's Introduction" *Perspectives on Positive Political Economy* eds. James E. Alt and Kenneth A. Shepsle. New York: Cambridge University Press.

Alvarez, R. Michael and Jonathan Nagler. 1995. "Economics, Issues and the Perot Candidacy: Vote Choice in the 1992 Presidential Election." *American Journal of Political Science.* 39(3): 714-744.

Anderson, Christopher and Jason Hecht. 2012. "Voting When the Economy Goes Bad, Everyone is in Charge and No One is to Blame: The Case of the 2009 German Election." *Electoral Studies.* 31(1): 5-19.

Anderson, Lawrence, Michael S. Lewis-Beck and Mary Stegmaier. 2003 "Post-Socialist Democratization: A Comparative Political Economy Model of the Vote for Hungary and Nicaragua." *Electoral Studies*. 22(3): 469-484.

Arce, Moises. 2003. "Political Violence and Presidential Approval in Peru" *The Journal of Politics.* 65(2): 572-583.

Arcelus, Francisco and Allan Meltzer. 1975. "The Effect of Aggregate Economic Variables on Congressional Elections" *The American Political Science Review.* 69(4): 1232-1239.

Baker, Andy. "Latin American Election Results with Party Ideology Scores." Retrieved from http://spot.colorado.edu/~bakerab/data.html (Accessed November 3, 2013).

Baron, Reuben M. and David A. Kenny. 1986. "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology.* 51(6): 1173-1182.

Baumler, Elizabeth R., Ronald B. Harrist, and Scott Carvajal. 2003. "Analysis of Repeated Measure Data." In *Multilevel Modeling: Methodological Advances, Issues, and Applications* eds. Steven P. Reise and Naihua Duan. New Jersey: Lawrence Erlbaum Associates, Inc.

Bean, Louis H. 1940. *Ballot Behavior: A Study of Presidential Elections.* Washington, DC: American Council on Public Affairs.

Beck, Nathaniel and Jonathan N. Katz. 1995. "What to do (and not to do) With Time-Series Cross-Section Data." *The American Political Science Review.* 89(3): 634-647.

Beck, Nathaniel and Jonathan N. Katz. 1996. "Nuisance vs. Substance: Specifying and Estimating Time-Series-Cross-Section Model." *Political Analysis.* 6: 1-36.

Beck, Nathaniel and Jonathan N. Katz. 2011. "Modeling Dynamics in Time-Series-Cross-Section Political Economy Data." *Annual Review of Political Science.* 14(1): 331-352.

Bell, Janice. 1997. "Unemployment Matters: Voting Patterns During the Economic Transition in Poland, 1990-95." *Europe-Asia Studies*. 49(7): 1263-1291

Benton, Allyson Lucinda. 2005. "Dissatisfied Democrats or Retrospective Voters? Economic Hardship, Political Institutions and Voting Behavior in Latin America." *Comparative Political Studies.* 38(4): 417-442

Berry, Frances Stokes and William D. Berry. 1991. "Specifying a Model of State Policy Innovation." *The American Political Science Review.* 85(2): 571-579.

Bielasiak, Jack and David Blunck. 2002. "Past and Present in Transitional Voting: Electoral Choices in Post-Communist Europe." *Party Politics*. 8(5): 563-585.

Biglaiser, Glen and Karl DeRouen Jr. 2004. "The Expansion of Neoliberal Economic Reforms in Latin America." *International Studies Quarterly.* 48(3): 561-578.

Bloom, Howard and Douglas Price. 1975. "Voter Response to Short-Run Economic Conditions: The Asymmetric Effect of Prosperity and Recession." *The American Political Science Review.* 69(4): 1240-1254.

Blount, Simon. 2002. “Unemployment and Economic Voting.” *Electoral Studies.* 21(1): 91-100.

Born, Richard. 1990. “Surge and Decline, Negative Voting, and the Midterm Loss Phenomenon: A Simultaneous Choice Analysis.” *American Journal of Political Science.* 34(3): 615-645.

Bratton, Michael, Ravi Bhavnani, and Tse-Hsin. 2012. “Voting Intentions in Africa: Ethnic, Economic or Partisan.” *Commonwealth & Comparative Politics.* 50(1): 27-52.

Brophy-Baermann, Michelle. 1994. “Economics and Elections: The Mexican Case.” *Social Science Quarterly.* 75(1): 125-135.

Buendia, Jorge. 1996. “Economic Reform, Public Opinion and Presidential Approval in Mexico, 1988-93.” *Comparative Political Studies.* 29(5): 566-591.

Campbell, Angus, Philip E. Converse, Warren E. Miller and Donald E Stokes. 1960. *The American Voter.* New York: John Wiley & Sons.

Canton, Dario and Jorge Jorrat. 2002. “Economic Evaluations, Partisanship and Social Bases of Presidential Voting in Argentina, 1995 and 1999.” *International Journal of Public Opinion Research.* 14(4): 413-427.

Carkoglu, Ali. 1997. “Macroeconomic Determinants of Electoral Support for Incumbents in Turkey, 1950-1995.” *New Perspectives on Turkey.* 17(2): 75-96.

Cheibub, Jose Antonio and Adam Przeworski. 1999. “Democracy Elections, and Accountability for Economic Outcomes.” In *Democracy, Accountability and Representation* eds. Adam Przeworski, Susan C. Stokes, and Bernard Manin. New York: Cambridge University Press.

Choi, Eunjung. 2010. “Economic Voting in Taiwan: The Significance of Education and Lifetime Economic Experience.” *Asian Survey.* 50(5): 990-1010.

Claggett, William. 1986. “A Reexamination of the Asymmetry Hypothesis: Economic Expansion, Contraction and Congressional Elections.” *The Western Political Science Quarterly.* 39(4): 623-633.

Clarke, Harold D. and Marianne C. Stewart. 1994. “Prospections, Retrospections, and Rationality: The “Bankers” Model of Presidential Approval Reconsidered.” *American Journal of Political Science*. 38(4): 1104-1123.

Clarke, Harold D. and Guy D. Whitten. 2013. “Hard Choices in Hard Times: Valence Voting in Germany.” *Electoral Studies.* 32(3): 445-451.

Coffey, Eva. 2013. “Pain Tolerance: Economic Voting in the Czech Republic.” *Electoral Studies.* 32(3): 432-437.

Colton, Timothy. 1996. “Economics and Voting in Russia.” *Post-Soviet Affairs.* 12(4): 289-317.

Conover, Pamela Johnston, Stanley Feldman and Kathleen Knight. 1986. “Judging Inflation and Unemployment: The Origins of Retrospective Evaluations.” *The Journal of Politics.* 48(3): 565-588.

Dominguez, Jorge and James McCann. 1995. “Shaping Mexico’s Electoral Arena: The Construction of Partisan Cleavages in the 1988 and 1991 National Elections.” *The American Political Science Review.* 89(1): 34-48.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. Boston: Addison Wesley.

Duch, Raymond. 1995. “Economic Chaos and the Fragility of Democratic Transition in Former Communist Regimes.” *The Journal of Politics.* 57(1): 121-158

Duch, Raymond. 2001. “A Developmental Model of Heterogeneous Economic Voting in New Democracies.” *The American Political Science Review.* 95(4): 895-910.

Duch, Raymond and Randy Stevenson. 2006. “Assessing the Magnitude of the Economic Vote over Time and Across Nations.” *Electoral Studies.* 25(3): 528-547.

Duch, Raymond, Harvey Palmer and Christopher Anderson. 2000. “Heterogeneity in Perceptions of National Economic Conditions.” *American Journal of Political Science.* 44(4): 635-652.

Edwards III, Gorge C., William Mitchell, and Reed Welch. 1995. “Explaining Presidential Approval: The Significance of Issue Salience.” *American Journal of Political Science.* 39(1): 108-134.

Esmer, Yilmaz. 2002. “At the Ballot Box: Determinants of Voting Behavior” In. *Politics, Parties and Elections in Turkey* eds. Sabri Sayari and Yilmaz Esmer. Colorado: Rienner.

Evans, Geoffrey and Robert Andersen. 2006. “The Political Conditioning of Economic Perceptions.” *The Journal of Politics.* 68(1): 194-207.

Evans, Geoffrey and Mark Pickup. 2010. “Reversing the Causal Arrow: The Political Conditioning of Economic Perceptions in the 2000-2004 U.S. Presidential Election Cycle.” *The Journal of Politics.* 72(4): 1236-1251.

Fair, Ray. 1975. “On Controlling the Economy to Win Elections.” *Cowles Foundation Discussion Paper* No. 397.

Fair, Ray. 1978. “The Effect of Economic Events on Votes for President.” *The Review of Economics and Statistics.* 60(2): 159-173.

Fauvelle-Aymar, Christine and Mary Stegmaier. 2013. “The Stock Market and US Presidential Approval.” *Electoral Studies.* 32(2): 411-417.

Feldman, Stanley. 1966. “Motivational Aspects of Attitudinal Elements and Their Place in Cognitive Interaction.” In *Cognitive consistency*. eds. Stanley Feldman. San Diego, CA: Academic Press.

Fidrmuc, Jan. 2000a. “Economics of Voting in Post-Communist Countries.” *Electoral Studies.* 19(2/3): 199-217.

Fidrmuc, Jan. 2000b. “Political Support for Reforms: Economics of Voting in Transitional Countries.” *European Economic Review.* 44(8): 1491-1513.

Findel, Steven E. 1995. *Causal Analysis with Panel Data.* Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-105. Thousand Oaks, CA: Sage.

Fiorina, Morris P. 1978. “Economic Retrospective Voting- in American National Elections: A Micro-Analysis.” *American Journal of Political Science.* 22(2): 426-443.

Fiorina, Morris P. and Kenneth Shepsle. 1989. “Is Negative Voting an Artifact?” *American Journal of Political Science.* 33(2): 423-439.

Foucault, Martial, Richard Nadeau, and Michael S. Lewis-Beck. 2013. “Patrimonial Voting: Refining the Measures.” *Electoral Studies.* 32(3): 557-562.

Fraile, Marta and Michael S. Lewis-Beck. 2013. “Multi-Dimensional Economic Voting in Spain: The 2008 Election.” *Electoral Studies.* 32(3): 465-469.

Freire, Andre and Jose Santana-Pereira. 2012. “Economic Voting in Portugal, 2002-2009.” *Electoral Studies.* 31(3): 506-512.

Gant, Michael and Dwight Davis. 1984. “Negative Voter Support in Presidential Elections.” *Political Research Quarterly*. 37(2): 272-290.

Gelineau, Francois. 2013. “Electoral Accountability in the Developing World.” *Electoral Studies* 32(3): 418-424.

Germano, Roy. 2013. "Migrants' Remittances and Economic Voting in the Mexican Countryside." *Electoral Behavior*. 32(4): 875-885.

Gibson, John and Anna Cielecka. 1995. "Economic Influences on the Political Support for Market Reform in Post-Communist Transitions: Some Evidence from the 1993 Polish Parliamentary Elections." *Europe-Asia Studies.* 47(5): 765-785.

Golden, David G. and James M. Poterba. 1980. "The Price of Popularity: The Political Business Cycle Reexamined." *American Journal of Political Science.* 24(4): 696-714.

Golder, Matt. "Binary Response Models." https://files.nyu.edu/mrg217/public/binaryresponse.pdf. (Accessed on: July 8th, 2014).

Gomez, Brad T. and J. Matthew Wilson. 2006. "Cognitive Heterogeneity and Economic Voting: A Comparative Analysis of Four Democratic Electorates." *American Journal of Political Science.* 50(1): 127-145.

Goodhart, C. A. E. and R. J. Bhansali. 1971. "Political Economy." *Political Studies.* 18(1): 43-106.

Harper, Marcus. 2000. "Economic Voting in Postcommunist Eastern Europe" *Comparative Political Studies.* 47(7): 1191-1227.

Harrington, David. 1989. "Economic News on Television: The Determinants of Coverage." *The Public Opinion Quarterly.* 53(1): 17-40.

Hazama, Yasushi. 2006. "Retrospective Voting in Turkey: Macro and Micro Perspectives." *Institute of Developing Economies*. Discussion Paper No. 46.

Headrick, Barbara and David J. Lanoue. 1991. "Attention, Asymmetry and Government Popularity in Britain." *Political Research Quarterly.* 44(1): 67-86.

Hellwig, Timothy and David Samuels. 2008. "Electoral Accountability and the Variety of Democratic Regimes." *British Journal of Political Science.* 38(1): 65-90.

Hesli, Vicki and Elena Bashkirova. 2001. "The Impact of Time and Economic Circumstances on Popular Evaluations on Russia's President." *International Political Science Review.* 22(4): 379-398.

Hetherington, Marc J. 1996. "The Media's Role in Forming Voters' National Economic Evaluations in 1992." *American Journal of Political Science.* 40(2): 372-395.

Hibbs Jr., Douglas A. 1973. "Problems of Statistical Estimation and Causal Inference in Time-Series Regression Models." *Sociological Methodology.* 5: 252-308.

Hibbs Jr., Douglas A. and Nicolas Vasilatos. 1981. "Economics and Politics in France: Economic Performance and Political Support for Presidents Pompidou and Giscard d'Estraing." *European Journal of Political Research.* 9: 133-145.

Hsieh, John Fuh-Sheng, Dean Lacy, and Emerson Niou. 1998. "Retrospective and Prospective Voting in a One-Party Dominant Democracy: Taiwan's 1996 Presidential Election." *Public Choice.* 97(3): 383-399.

Hu, Bo, Jun Shao, and Mari Palta. 2006. "Pseudo-R2 In Logistic Regression Model." *Statistica Sinica.*16: 847-860.

IFES. *International Foundation for Electoral Systems*. http://www.ifes.org/ (Date Accessed: January 11, 2014).

International Monetary Fund. " IMF World Economic Outlook Database List." http://www.imf.org/external/ns/cs.aspx?id=28 (Date accessed: January 21-28, 2014).

Jacobson, Gary C. and Samuel Kernell. 1981. *Strategy and Choice in Congressional Elections.* New Haven: Yale University Press.

Johnson, Gregg and Leslie Schwindt-Bayer. 2009. "Economic Accountability in Central America." *Journal of Politics in Latin America.* 1(3): 33-56.

Johnson, Gregg and Sooh-Rhee Ryu. 2010. "Repudiating or Rewarding Neoliberalism? How Broken Campaign Promises Condition Economic Voting in Latin America." *Latin American Politics and Society.* 52(4): 1-24.

Johnson, James. 1996. "How Not to Criticize Rational Choice Theory: Pathologies of "Common Sense." *Philosophy of the Social Sciences.* 26(1): 77-91.

Jordan, Nehemiah. 1965. "The Asymmetry of Liking and Disliking: A Phenomenon Meriting Further Reflection and Research." *The Public Opinion Quarterly.* 29(2): 315-322.

Kahneman, Daniel and Amos Tversky. 1979. "Prospect Theory: An Analysis of Decision Under Risk." *Econometrica.* 47(2): 263-291.

Kahneman, Daniel and Amos Tversky. 1991. "Loss Aversion in Riskless Choice: A Reference-Dependent Model." *The Quarterly Journal of Economics.* 106(4): 1039-1061.

Kang, Woo Jin. 2013. “Regional Party System, Causal Attribution, and Economic Voting in New Democracies: The Case of the 2007 Korean Presidential Election.” *International Political Science Review.* 34(2): 173-190.

Kanouse, David and L. Reid Hanson Jr. 1972. *Negativity in Evaluations.* New Jersey: General :Learning Press.

Kernell, Samuel. 1977. “Presidential Popularity and Negative Voting: An Alternative Explanation of the Midterm Congressional Decline of the President’s Party.” *The American Political Science Review.* 71(1): 44-66.

Kelly, Jana. 2003. “Counting on the Past or Investing in the Future? Economic and Political Accountability in Fujimori’s Peru.” *The Journal of Politics.* 65(3): 864-880.

Key,V.O. 1964. *Politics, Parties, and Pressure Groups.* New York: Thomas Y. Cromwell Company.

Key, V.O. 1966. *The Responsible Electorate.* Cambridge: Harvard University Press.

Kiewiet, D. Roderick. 1983. *Macroeconomics and Micropolitics: The Electoral Effects of Economic Issues.* Chicago: University of Chicago Press.

Kiewiet, D. Roderick. 1984. “A Retrospective on Retrospective Voting.” *Political Behavior.* 6(4): 369-393.

Kiewiet, D. Roderick and Michael S. Lewis-Beck. “No Man is an Island: Self-Interest, The Public Interest and Sociotropic Voting” *Critical Review.* 23(3): 303-319.

Kinder, Donald and D. Roderick Kiewiet. 1979. “Economic Discontent and Political Behavior: The Role of Personal Grievances and Collective Economic Judgments in Congressional Voting.” *American Journal of Political Science.* 23(3): 495-527.

Kinder, Donald and D. Roderick Kiewiet. 1981. “Sociotropic Politics: The American Case.” *British Journal of Political Science.* 11(2): 129-161.

Klorman, Ricardo. 1978. “Trends in Personal Finances and the Vote.” *The Public Opinion Quarterly.* 42(1): 31-48.

Kmenta, Jan. 1986. *Elements of Econometrics*. New York: Macmillan.

Konitzer-Smirnov, Andrew. 2003. “Incumbent Electoral Fortunes and Regional Economic Performance During Russia’s 2000-2001 Executive Election Cycle.” *Post-Soviet Affairs.* 19(1): 46-79.

Kramer, Gerald. 1971. “Short-term Fluctuations in U.S. Voting Behavior, 1896-1964.” *The American Political Science Review.* 65(1): 131-143.

Kramer, Gerald. 1983. “The Ecological Fallacy Revisited: Aggregate vs Individual –level Findings on Economics and Elections and Sociotropic Voting.” *The American Political Science Review*. 77(1): 92-111.

Kuklinski, James H. and Darrell M. West. 1981. “Economic Expectations and Voting Behavior in U.S. House and Senate Elections.” *The American Political Science Review.* 75(2): 436-447.

Lafay, Jean-Dominique. 1984. “Political Change and Stability of the Popularity Function: The French General Election of 1981.” *Political Behavior.* 6(4): 333-352.

Lau, Richard. 1982. “Negativity in Political Perceptions.” *Political Behavior.* 4(4): 353-377.

Lau, Richard. 1985. “Two Explanations for Negativity Effects in Political Behavior.” *American Journal of Political Science.* 29(1): 119-138.

Lee, Sophie Jiseon. 2011. *Economic Voting and Regionalism in South Korea: A Statistical Analysis of the 2007 Presidential Elections.* (Doctoral Dissertation). Retrived from ProQuest Dissertations and Theses. (Accession Order No.1492171).

Lee, Aie-Rie and Yong. U. Glasure. 2012. “Economic Voting in South Korea: Pocketbook or Sociotropic.” *Japanese Journal of Political Science.* 13(3): 337-353.

Lepper, Susan. 1972. “Voting Behavior and Aggregate Policy Targets.” *Public Choice.* 18(1): 67-81.

Lewin, Leif. (1991). *Self-Interest and Public Interest in Western Politics.* Oxford: Oxford University Press

Lewis-Beck, Michael S. 1980. “Economic Conditions and Executive Popularity: The French Experience.” *American Journal of Political Science.* 24(2): 306-323.

Lewis-Beck, Michael S. 1983. “Economics and the French Voter: A Microanalysis.” *The Public Opinion Quarterly.* 47(3): 347-360.

Lewis-Beck, Michael S. 1986. “Comparative Economic Voting: Britain, France, Germany, Italy.” *American Journal of Political Science.* 30(2): 315-346.

Lewis-Beck, Michael S. 1988. *Economics and Elections.* Ann Arbor: University of Michigan Press.

Lewis-Beck, Michael S. 2006. “Does Economics Still Matter? Econometrics and the Vote.” *The Journal of Politics.* 68(1): 208-212.

Lewis-Beck, Michael S. and Paolo Bellucci. 1982. “Economic Influences on Legislative Elections in Multiparty Systems: France and Italy.” *Political Behavior.* 4(1): 93-107.

Lewis-Beck, Michael S. and Mary Stegmaier. 2000. “Economic Determinants of Electoral Outcomes.” *Annual Review of Political Science.* 3(1): 183-219.

Lewis-Beck, Michael S. and Mary Stegmaier. 2008. “The Economic Vote in Transitional Democracies.” *Journal of Elections, Public Opinion and Parties.* 18(3): 303-323.

Lewis-Beck, Michael S. and Mary Stegmaier. 2009. “Learning the Economic Vote: Hungarian Forecasts. 1998-2010.” *Politics & Policy.* 37(4): 769-780.

Lewis-Beck, Michael S. and Richard Nadeau. 2011. “Economic Voting Theory: Testing New Dimensions.” *Electoral Studies.* 30(2): 288-294.

Lewis-Beck, Michael S. and Mary Stegmaier. 2013. “The VP-Function Revisited: A Survey of the Literature on the Vote and Popularity Functions After over 40 Years.” *Public Choice.* 157(3): 367-385.

Lewis-Beck, Michael S. and Maria Celeste Ratto. 2013. “Economic Voting in Latin America: A General Model.” *Electoral Studies.* 32(3): 489-493.

Lewis-Beck, Michael S., William G. Jacoby, Helmut Norpoth and Herbert F. Weisberg. 2009. *The American Voter Revisited.* Ann Arbor: University of Michigan Press

Lewis-Beck, Michael S., Martial Foucault and Richard Nadeau. 2010. “Patrimonial Economic Voting: Legislative Elections in France.” *Western European Politics.* 33(6): 1261-1277.

Lewis-Beck, Michael S., Richard Nadeau and Martial Foucault. 2012. “The Compleat Economic Voter: New Theory and British Evidence.” *British Journal of Political Science.* 43(2): 241-261.

Lippenyi, Zoltan, Ineke Maas, and Wim Jansen. 2013. “Economic Voting in Hungary, 1998-2008.” *Electoral Studies.* 32(4): 838-851.

Lobo, Maria Costa and Michael S. Lewis-Beck. 2012. “The Integration Hypothesis: How the European Union Shapes Economic Voting.” *Electoral Studies.* 31(3): 522-528.

Lockerbie, Brad. 1992. “Prospective Voting in Presidential Elections, 1956-1988.” *American Politics Research.* 20(3): 308-325.

MacKuen, Michael, Robert Erikson and James Stimson. 1992. “Peasants or Bankers? The American Electorate and the US Economy.” *American Political Science Review.* 86(3): 597-611.

MacKuen, Michael, Robert Erikson and James Stimson. 1996. “Presidents and the Prospective Year: Comment.” *The Journal of Politics.* 58(3): 793-801.

Malhotra, Neil and Jon A. Krosnick. 2007. “Retrospective and Prospective Performance Assessments During the 2004 Election Campaign: Tests of Mediation and News Media Priming.” *Political Behavior.* 29(2): 249-278.

Mankiw, N. Gregory. 2004. *Brief Principles of Macroeconomics (Third Edition).* Ohio: Thomson/South-Western.

Markus, Gregory B. 1988. “The Impact of Personal and National Economic Conditions on Presidential Vote: A Pooled Cross-Sectional Analysis.” *American Journal of Political Science.* 32(1): 137-154.

Markus, Gregory B. 1992. “The Impact of Personal and National Economic Conditions on Presidential Voting, 1956-1988.” *American Journal of Political Science.* 36(3): 829-834.

Martinsson, Johan. 2013. “Economic Voting in Sweden 1985-2010” *Electoral Studies.* 32(3): 470-475.

Matlin, Margaret W. and David J. Stang. 1978. *The Polyanna Principle: Selectivity in Language, Memory and Thought.* Cambridge: Schenkman

Meyer, Ralph and David Malcolm. 1993. “Voting in India: Effects of Economic Change and New Party Formation.” *Asian Survey.* 33(5): 507-519.

Michelitch, Kristin, Marco Morales, Andrew Owen and Joshua Tucker. 2012. “Looking to the Future: Prospective Economic Voting in 2008 Presidential Elections.” *Electoral Studies.* 31(4): 838-851.

Miller, Arthur and Martin Wattenberg. 1985. “Throwing the Rascals Out: Policy and Performance Evaluations of Presidential Candidates, 1952-1980.” *The American Political Science Review.* 79(2): 359-372.

Mishler, William and John Willerton. 2003. “The Dynamics of Presidential Popularity in Post-Communist Russia: Cultural Imperative versus Neo-Institutional Choice?” *The Journal of Politics.* 65(1): 111-141.

Monroe, Kristen. 1978. “Economic Influences on Presidential Popularity” *The Public Opinion Quarterly.* 42(3): 360-369.

Mueller, John. 1970. “Presidential Popularity from Truman to Johnson” *The American Political Science Review.* 64(1): 18-34.

Mueller, John. 1973. *War, Presidents, and Public Opinion.* Maryland: University Press of America.

Nadeau, Richard and Michael S. Lewis-Beck. 2001. “National Economic Voting in U.S. Presidential Elections” *The Journal of Politics.* 63(1): 159-181.

Nadeau, Richard, Richard Niemi and Antoine Yoshinaka. 2002. “A Cross-National Analysis of Economic Voting: Taking Account of the Political Context across Time and Nations.” *Electoral Studies.* 21(3): 403-423.

Nadeau, Richard, Martial Foucault and Michael S. Lewis-Beck. 2011. “Asset and Risk: A Neglected Dimension of Economic Voting.” *French Politics.* 9(2): 97-119.

Nadeau, Richard, Eric Belanger and Thomas Didier. 2013. “The Chavez Vote and the National Economy in Venezuela.” *Electoral Studies.* 32(3): 482-488.

Nannestad, Peter and Martin Paldam. 1994. “The VP-Function: A Survey of the Literature on Vote and Popularity Functions After 25 Years.” *Public Choice.* 79(3): 213-245.

Nannestad, Peter and Martin Paldam. 1995. “It’s the Government’s Fault! A Cross-section Study of Economic Voting in Denmark, 1990-1993” *European Journal of Political Research.* 28: 33-62.

Nannestad, Peter and Martin Paldam. 1997a. “From the Pocketbook of the Welfare Man: A Pooled Cross-Section Study of Economic Voting in Denmark.” *British Journal of Political Science.* 27(1): 119-136.

Nannestad, Peter and Martin Paldam. 1997b. “The Grievance Asymmetry Revisited: A Micro Study of Economic Voting in Denmark, 1986-92.” *European Journal of Political Economy.* 13(1): 81-99.

Nezi, Roula. 2012. “Economic Voting Under the Economic Crisis: Evidence from Greece.” *Electoral Studies.* 31(3): 498-505.

Nohlen, Dieter. 2005. *Elections in the Americas: A Data Handbook Vol. I North America, Central America and the Caribbean.* Oxford: Oxford University Press

Nohlen, Dieter. 2005. *Election in the Americas: A Data Handbook Vol. II South America.* Oxford: Oxford University Press

Nohlen, Dieter, Michael Krennerich, and Bernhard Thibaut. 1999. *Elections in Africa: A Data Handbook.* Oxford: Oxford University Press.

Nohlen, Dieter, Florian Grotz, and Christof Hartmann. 2001. *Elections in Asia and the Pacific: A Data Handbook. Vol. I, the Middle East, Central Asia and South Asia.* Oxford: Oxford University Press

Nohlen, Dieter, Florian Grotz, and Christof Hartmann. 2001. *Election in Asia and the Pacific: A Data Handbook. Vol. II, South East Asia, East Asia and the South Pacific.* Oxford: Oxford University Press

Nohlen, Dieter and Philip Stover. 2010. *Elections in Europe: A Data Handbook.* Baden-Baden, Germany: Nomos

Norpoth, Helmut and Thom Yantek. 1983. "Macroeconomic Conditions and Fluctuations of Presidential Popularity: The Question of Lagged Effects." *American Journal of Political Science.* 27(4): 785-807.

Norpoth, Helmut. 1984. "Economics, Politics and the Cycle of Presidential Popularity." *Political Behavior.* 6(3): 252-273.

Norpoth, Helmut. 1996. "Presidents and the Prospective Voter" *The Journal of Politics.* 58(3): 776-792.

Ogburn, William F. and Dorothy S. Thomas. 1922. "The Influence of the Business Cycle on Certain Social Conditions" *Journal of the American Statistical Association.* 18(139): 324-340.

Owen, Andrew and Joshua A. Tucker. 2010. "Past is Still Present: Micro-Level Comparisons of Conventional vs. Transitional Economic Voting in Three Polish Elections." *Electoral Studies.* 29(1): 25-39.

Pacek, Alexander. 1994. "Macroeconomic Conditions and Electoral Politics in East Central Europe." *American Journal of Political Science.* 38(3): 723-744.

Pacek, Alexander and Banjamin Radcliff. 1995. "The Political Economy of Competitive Elections in the Developing World." *American Journal of Political Science.* 39(3): 745-759

Paldam, Martin. 1981. "A Preliminary Survey of the Theories and findings on Vote and Popularity Functions." *European Journal of Political Research.* 9(2): 181-199.

Paldam, Martin. 1991. "How Robust is the Vote Function? A Study of Seventeen Nations over Four Decades" *Economics and Politics: The Calculus of Support.* 9-31.

Palmer, Harvey and Guy D. Whitten. 1999. "The Electoral Impact of Unexpected Inflation and Economic Growth." *Electoral Studies.* 18(1): 49-67.

Palmer, Harvey and Guy Whitten. 2003. "Questionable Analyses with No Theoretical Innovation: A Response to Royed, Leyden and Borrelli" *British Journal of Political Science 33:1,* pp. 139-149

Palmer, Harvey and Guy Whitten. 2011. "Through Thick and Thin? The Dynamics of Government Support Across Income Groups During Economic Crisis" *Electoral Studies 30,* pp. 427-437

Panzer, John and Ricardo Paredes. 1991. "The Role of Economic Issues in Elections: The Case of the 1988 Chilean Presidential Referendum." *Public Choice.* 71(1/2): 51-59.

Parker-Stephen, Evan. 2013. "Clarity of Responsibility and Economic Evaluations." *Electoral Studies.* 32(3): 506-511.

Pearson, F.A and W.I. Myers. 1948. "Prices and Presidents." *Farm Economics.* 163: 4210-4218.

Posner, Daniel and David Simon. 2002. "Economic Conditions and Incumbent Support in Africa's New Democracies: Evidence from Zambia." *Comparative Political Studies.* 35(3): 313-336.

Powell, G. Bingham Jr. 1987. "Comparative Voting Behavior: Cleavages, Partisanship and Accountability." *Research in Micropolitics.* 2: 233-264.

Powell, G. Bingham Jr. and Guy D. Whitten. 1993. "A Cross-National Analysis of Economic Voting: Taking Account of the Political Context." *American Journal of Political Science.* 37(2): 391-414.

Powers, Denise V. and James H. Cox. 1997. "Echoes from the Past: The Relationship between Satisfaction with Economic Reforms and Voting Behavior in Poland." *The American Political Science Review.* 91(3): 617-633.

Przeworski, Adam. 1996. "Public Support for Economic Reform in Poland"

Quackenbush, Stephen L. 2004. "The Rationality of Rational Choice Theory." *International Interactions.* 30: 87-107.

Quattrone, George A. and Amos Tversky. 1988. "Contrasting Rational and Psychological Analyses of Political Choice." *The American Political Science Review.* 82(3): 719-736

Radcliff, Benjamin. 1988. "Solving a Puzzle: Aggregate Analysis and Economic Voting Revisited." *The Journal of Politics.* 50(2): 440-455.

Radcliff, Benjamin. 1992. "The Welfare State, Turnout and the Economy: A Comparative Analysis." *The American Political Science Review.* 86(2): 444-454.

Radcliff, Benjamin. 1994. "Reward without Punishment: Economic Conditions and the Vote." *Political Research Quarterly*. 47(3): 721-731.

Reed, Steven and Gregory G. Brunk. 1984. "A Test of Two Theories of Economically Motivated Voting: The Case of Japan." *Comparative Politics.*17(1): 55-66.

Remmer, Karen L. 1991. "The Political Impact of Economic Crisis in Latin America in the 1980s." *The American Political Science Review.* 85(3): 777-800.

Remmer, Karen L. and Francois Gelineau. 2003. "Subnational Electoral Choice: Economic and Referendum Voting in Argentina, 1983-1989." *Comparative Political Studies.* 36(7): 801-821.

Rice, Stuart A. 1928 (1969). *Quantitative Methods in Politics.* New York: Russell and Russell

Richter, Kaspar. 2006. "Wage Arrears and Economic Voting in Russia." *The American Political Science Review.* 100(1): 133-145.

Roberts, Andrew. 2008. "Hyperaccountability: Economic Voting in Central and Eastern Europe." *Electoral Studies.* 27(3): 533-546.

Roberts, Kenneth M. and Erik Wibbels. 1999. "Party Systems and Electoral Volatility in Latin America: A Test of Economic, Institutional and Structural Explanations." *American Political Science Review.* 93(3): 575-590.

Rodrik, Dani. 2001. "Why is There so Much Economic Insecurity in Latin America." *Cepal Review.* 73: 7-30.

Rose, Richard and Thomas T. Mackie. 1983. "Incumbency in government: Asset or Liability", in Daalder, Hans amd Mair, Peter (eds.) *Western European Party System: Continuity and Change.* London: Sage Publications, pp. 115-138.

Rosenstone, Steven. 1982. "Economic Adversity and Voter Turnout." *American Journal of Political Science.* 26(1): 25-46.

Royed, Terry, Kevin Leyden and Stephen Borrelli. 2000. "Is Clarity of Responsibility Important for Economic Voting? Revisiting Powell and Whitten's Hypothesis." *British Journal of Political Science.* 30(4): 669-685.

Rozin, Paul and Edward Royzman. 2001. "Negativity Bias, Negativity Dominance and Contagion." *Personality and Social Psychology Review*. 5(4): 296-320.

Sheafer, Tamir. 2008. "The Media and Economic Voting in Israel." *International Journal of Public Opinion Research.* 20(1): 33-51.

Singer, Matthew. 2011. "Who Says 'It's the Economy'? Cross-National and Cross-Individual Variation in the Salience of Economic Performance." *Comparative Political Studies.* 44(3): 284-312.

Singer, Matthew M. 2013. "The Global Economic Crisis and Domestic Political Agendas." *Electoral Studies.* 32(3): 404-410.

Singer, Matthew M. and Francois Gelineau. 2010. "Heterogeneous Economic Voting: Evidence from Latin America 1995-2005." Paper prepared for the Latin American World Association for Public Opinion Research.

Singer, Matthew M. and Ryan E. Carlin. 2013. "Context Counts: The Election Cycle, Development and the Nature of Economic Voting." *The Journal of Politics.* 75(3): 730-742.

Smith, Peter H. *Democracy in Latin America.* New York: Oxford University Press.

Soroka, Stuart N. 2006. "Good News and Bad News: Asymmetric Responses to Economic Information." *The Journal of Politics.* 68(2): 372-385.

Steenbergen, Marco R. and Bradford S. Jones. 2002. "Modeling Multilevel Data Structures." *American Journal of Political Science.* 46(1): 218-237.

Stigler, George. 1973. "General Economic Conditions and National Elections." *The American Economic Review.* 63(2): 160-167.

Stimson, James A. 1985. "Regression in Space and Time: A Statistical Essay." *American Journal of Political Science.* 29(4): 914-947.

Stokes, Susan. 1996. "Economic Reform and Public Opinion in Peru, 1990-1995." *Comparative Political Studies.* 29(5): 544-565.

Stubager, Rune, Michael S. Lewis-Beck, and Richard Nadeau. 2013. "Reaching for Profit in the Welfare State: Patrimonial Economic Voting in Denmark." *Electoral Studies.* 32(3): 438-444.

Stubager, Rune, Niels W. Botterill, Michael S. Lewis-Beck, and Richard Nadeau. 2014. "Scope Conditions of Economic Voting: The Danish Exception?" *Electoral Studies.* 34(11): 16-26.

Tandon, Sharad. 2012. “Economic Reform, Voting and Local Political Intervention: Evidence from India.” *Journal of Development Economics.* 97(2): 221-231.

Tche, Jacob. 2009. “Economic Voting in Cameroon.” *Canadian Journal of Development Studies.* 28(3/4): 489-503.

Tibbitts, Clark. 1931. “Majority Votes and the Business Cycle” *Journal of Sociology.* 36(4): 596-606.

Tucker, Joshua A. 2001. “Economic Conditions and the Vote for Incumbent Parties in Russia, Poland, Hungary, Slovakia and the Czech Republic from 1990-1996.” *Post-Soviet Affairs.* 17(4): 309-331.

Tucker, Joshua A. 2006. *Regional Economic Voting: Russia, Poland, Hungary, Slovakia, and the Czech Republic, 1990-99.* New York: Cambridge University Press.

Tversky, Amos and Daniel Kahneman. 1992. “Advances in Prospect Theory: Cumulative Representation of Uncertainity.” *Journal of Risk and Uncertainity.* 5: 297-323.

Wade, Larry L. and Seong Jin Kang. 1990. “Economic Voting in South Korea: The 1988 Assembly Elections.” *Journal of Northeast Asian Studies.* 9(2): 46-58.

Wade, Larry L., Alexander J. Groth and Peter Lavelle. 1993. “Estimating Participation and Party Voting in Poland: The 1991 Parliamentary Elections.” *Eastern European Politics & Societies.* 8(1): 94-121.

Wade, Larry L., Peter Lavelle and Alexander J. Groth. 1995. “Searching for Voting Patterns in Post-Communist Poland’s Sejm Elections.” *Communist and Post-Communist Studies.* 28(4): 411-425.

Warner, Andrew. 2001. “Is Economic Reform Popular at the Polls? Russia 1995” *Journal of Comparative Economics.* 29(3): 448-465.

Weil, David N. 2005. *Economic Growth.* Boston: Pearson Addison Wesley.

Weyland, Kurt. 1996. “Risk Taking in Latin American Economic Restructuring: Lessons from Prospect Theory” *International Studies Quarterly.* 40(2): 185-207.

Weyland, Kurt. 1998. “Peasants or Bankers in Venezuela? Presidential Popularity and Economic Reform Approval, 1989-1993” *Political Research Quarterly.* 51(2): 341-362.

Weyland, Kurt. 2000. “A Paradox of Success? Determinant of Political Support for President Fujimori” *International Studies Quarterly.* 44(3): 481-502.

Weyland, Kurt. 2003. “Economic Voting Reconsidered: Crisis and Charisma in the Election of Hugo Chavez” *Comparative Political Studies.* 47(7): 822-848.

Whitten, Guy D. and Harvey Palmer. 1999. “Cross-National Analyses of Economic Voting” *Electoral Studies.* 18(1): 49-67.

Wilkin, Sam, Brandon Haller, and Helmut Norpoth. 1997. “From Argentina to Zambia: A World-Wide Test of Economic Voting” *Electoral Studies.* 16(3): 301-316.

World Bank Economic Indicators. *World Bank*. http://data.worldbank.org/ (Accessed: November 19, 2013).

Yarbrough, Beth V. and Robert M. Yarbrough. 2000. *The World Economy: Trade and Finance (Fifth Edition).* Florida: Harcourt College Publishers.

Youde, Jeremy. 2005. “Economics and Government Popularity in Ghana.” *Electoral Studies.* 24(1): 1-16.

Rafael Oganesyan
9059 Edenbridge Ct. Las Vegas, NV 89123
**Cell**: 702.683.1776 **Email**: oganesya@unlv.nevada.edu

## Academic Qualification

**University of Nevada, Las Vegas** **2014**
Ph. D. in Political Science
Major: International Relations (political economy, Middle East Politics)
Minor: Comparative Politics (economic voting behavior)

**University of Nevada, Las Vegas** **2012 - 2014**
Master of Arts in Political Science
Major: Comparative Politics and International Relations
*Thesis: "Economic Voting in the Developing World"*

**University of Nevada, Las Vegas** **2008 - 2010**
Bachelor of Arts in Political Science

**University of Nevada, Las Vegas** **2002 - 2008**
Bachelor of Arts in Economics
*Thesis: "Determinants of Chinese Foreign Aid in Africa"*

## Academic Distinctions

- Research Assistant **2014**
- Graduate/Teaching Assistant **2014**
- Deans Honors List **2008 - 2010**

## Research Interests

- Political Economy
  - Determinants of Chinese Foreign Aid
  - Structure of Chinese Monetary System
  - National doctrine of BRICS
- Middle East Politics
  - Islamist Governments
  - Theoretical Frameworks of Turkey's Foreign Policy
  - Arab Uprisings
- Voting Behavior
  - The Saliency of short-term vote determinants in developing countries
  - Valence economic voting in the developing world

    - Patrimonial economic voting in Central and Eastern Europe
- Research Methods
    - Multi-level and longitudinal modeling
    - cross-sectional time-series modeling

## Conference Acceptance and Presentations

- "Determinants of Success and Failure in Modern Islamic Governments: A Comparative Analysis of the Muslim Brotherhood, FIS, Hezbullah, Hamas, IAS and AKP," *Hawaii International Conference on Social Sciences, Honolulu, Hawaii* **2014**

- "Ottomans in the Middle East: Theoretical Explanations of Turkey's Foreign Policy" *Hawaii International Conference on Social Sciences, Honolulu, Hawaii* **2014**

## Professional Activities

- Political Science Representative to the Graduate and Professional Student Association **2014**

- Co-founder of the Organization for the Advancement of Armenian Culture NGO **2010**

- Founder of the Armenian Student Association at UNLV **2004**

## Professional Memberships

- Student Affiliate of American Institute of Certified Public Accountants (AICPA) **2014**

- Member of International Studies Association (ISA) **2013**

## Work Experience

- Teaching Assistant, *UNLV* January, 2014 – May, 2014
    - Tutor students in advanced quantitative methodology
    - Grade homework assignments

- Valet Attendant, *Bills Gambling Hall & Saloon* Aug., 2012 – Feb., 2013