It's About Time: Institutions, Election Timing, and the Economic Vote

by

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I dedicate my dissertation to my parents, Steve and Leslie, who taught me to love

learning and to work hard.

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ABSTRACT

It's About Time: Institutions, Election Timing, and the Economic Vote

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The literature on constrained economic voting emphasizes how voters hold politicians less accountable for economic outcomes when those politicians have less control over policy (e.g., Duch & Stevenson, 2008; Hellwig 2008; Powell & Whitten, 1993). This literature, however, is based on the highly problematic assumption that elections are fixed events that the affected politicians have no capacity to manipulate. This dissertation considers how our empirical expectations of accountability relationships change when election timing is fungible by parties both in and out of power. The dissertation shows that different types of elections result from variations in economic performance, and the capacity of both the prime minister and the opposition to call elections at will. Because the institutions that constrain or empower different actors in parliament to bring about elections covary with those typically used in clarity of responsibility arguments, the weak direct effects found in previous studies between institutions, economics, and election outcomes are better explained by the consideration of strategic politicians opportunistically timing elections. I show that the type of election mediates the effect of the economy on the retention of the prime minister in 19 parliamentary countries for elections between 1967 and 2010. The implications

of the economic vote for democratic accountability are thrown into question, as the economys primary effect on election outcomes is through the incentive for strategic politicians to call elections.

CHAPTER I

Introduction

"The economy, stupid!"

–James Carville, U.S. President Bill Clinton's 1992 campaign manager

Like James Carville, many political scientists assume the economy's primacy in election outcomes. It is taken by many to be self-evident that the state of the economy can make or break an incumbent government's hopes of reelection (Arceneaux, 2005; Beck, 1987; Bengtsson, 2004; Gelman and King, 1993; Lewis-Beck, 1988; Lewis-Beck and Paldam, 2000; Peffley, 1984). Poor economic performance, the thinking goes, tends to harm incumbents' electoral prospects, while good performance can help buoy a government at the polls. A prominent explanation of this phenomenon is that voters attribute blame for bad economic outcomes and credit for good ones to those controlling the government. However, this relationship is inconsistent both across countries and over time. In response to this inconsistency, scholars formulated new theories wherein the state of the economy is expected to be a poorer predictor of electoral outcomes in countries where political institutions are more complex (Books and Presby, 1999; Duch and Stevenson, 2008; Powell and Whitten, 1993). Where determining who is 'in charge' of government is quite easy, economic outcomes ought

to prove a better predictor of electoral outcomes. As politics (or government institutions) becomes more complicated, voters' choices at the ballot box are no longer straightforward. When policymaking responsibility is shared, voters are thought to face the difficult task of determining to whom to attribute credit or blame (typically) with a single vote. In these situations, the economy's impact on incumbent performance at the polls is weaker because voters don't know how to attribute credit or blame.

Unfortunately, the conventional wisdom about the relationship between institutions, the economy and elections is faulty. Complex political institutions do not simply obscure accountability. The institutions considered by the literature for their effects on voter attributions of responsibility are reflective of the more general concentration of power in a country at that moment that contribute to the behaviors of politicians. While some voters may be aware of the constraints politicians face in implementing policy and managing the macroeconomy, all politicians are keenly aware of these restrictions. The concentration of political power affects strategic relationships between government and opposition parties more than it is likely to change how voters view the degree to which those in power are responsible for economic or other policy outcomes. The variation in policymaking power concentration is likely to be related further to how parliaments end and how elections come about. Differences in the concentration of power alter the ability and incentive of some partisans to prematurely dissolve parliament and bring about early elections. This dissertation argues that it is the strategic timing of elections that explains the swings in the impact of the economy from one electoral cycle to the next in parliamentary systems.

While the strength of the institutionally contingent economic vote (referred to interchangeably as the "clarity of responsibility" hypothesis (Powell and Whitten, 1993)) is broadly accepted in the discipline, our empirical understanding of this phenomenon at the level of election outcomes is fundamentally unsound due to model

misspecification and misinterpretation. This chapter demonstrates that, upon correctly specifying and interpreting cross-national economic voting models, very little remains of that certainty and we are left with a new set of puzzles to investigate. I find that, contrary to expectations, increasing governmental clarity of responsibility generally has either no moderating effect or even *reduces* the impact of economic variables on government vote share in a sample of elections in 21 advanced industrialized democracies from 1967-2010.[1] This leads to the fundamental puzzle addressed in the dissertation: What is the mechanism by which political institutions influence the economy's effects on election outcomes?

I argue that it is precisely those contexts in which who governs is most clear that a single partisan actor is most likely to have the capacity to unilaterally determine the timing of parliamentary elections. That actor, however, does not necessarily have the incentive to call elections when the sitting government is likely to perform well at the polls. By focusing on the incentives and capacities of actors who precipitate elections, instead of how voters understand complex parliamentary institutions, I derive new expectations about the causal path by which the economy affects election outcomes, which in turn lead to a different set of observable implications between these variables.

This chapter describes our current understanding of the macro-level economic vote, focusing first on its theoretical underpinnings and then examining its empirical support. While many treat the economic vote as established fact, and perhaps the most important determinant of an incumbent's retention of office, the literature is actually quite fraught. Early analyses found significant variance in the degree to which the economy predicted incumbent support, while later studies have tended to examine the economic vote at the individual level due to the inconsistency of findings at the level of election returns. In section 1.2.1 I discuss why we ought to be skeptical

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[1]These cases were chosen because they are incredibly common in the literature, have generally stable political institutions during the period over which economic data is readily available, and they generally have long histories of democracy prior to the period under examination.

of the theoretical underpinnings of the the economic voting hypothesis. The economic voting literature is flawed by two linked premises that make the relationship between economic outcomes, electoral outcomes, and democratic accountability problematic: 1) voters are highly informed and consider the capacity of governing parties to affect economic outcomes, and 2) election timing is exogenous. When these assumptions are relaxed such that elections are endogenous to the economic outcomes we use to predict their results, voters need not be highly informed or fully rational, and politicians have multiple means of affecting election outcomes. Section 1.2.2 discusses the shortcomings in some of the most prominent work on the economic voting literature that lead to incorrect inferences about the economy's impact on election outcomes. Section 1.3 addresses these highlighted methodological problems in a sample of elections from twenty-one advanced industrialized democracies over a forty-year span from 1967-2010. I provide both a set of regression estimates correcting for methodological problems in a seminal article in the field, Whitten and Palmer (1999), and cumulative results from more than 1,600 model estimates that attempt to replicate and find support for the clarity of responsibility theory. Ultimately, there is little evidence supporting the argument that the political institutions considered by the economic voting literature significantly moderate the relationship between the economy and election results in the expected direction. With these findings in hand, Section 1.4 lays out the framework for the remainder of the dissertation in which I evaluate how the capacity to strategically time elections is key to understanding the economy's variable impact on who wins elections.

1.1 Economic voting: current controversies

The economic vote is a phenomenon that occurs at both the level of the individual and the electorate writ large. While significant attention continues to be paid to how individual voters come to formulate and use economic evaluations in their vote choices,

how and why the economy affects vote share and retention of incumbents has received less attention over the past decade. While those interested in election outcomes tend to include economic performance in their explanations, little recent work has focused on how the economy matters in determining who governs. Some may think this is because the question is settled. In fact, the literature is full of contradictory and weak findings about how the economy matters to election results.

Early studies of the economy's effects on election outcomes focused on single countries, with a number focusing on the US (e.g., Tufte, 1975), UK (e.g., Whiteley, 1986), New Zealand (e.g., Ursprung, 1984), France (e.g., Lewis-Beck, 1988), and other industrialized countries. However, Michael Lewis-Beck's *Economics and Elections: The major Western democracies* (1988) compared the economic vote across elections in six advanced industrialized democracies and noted a troubling puzzle: the magnitude of the economic vote varied considerably both across countries and within individual countries across elections. Lewis-Beck (1988) documents the effects of the economy on incumbent support in the United Kingdom, United States, France, and West Germany, but finds less support for this relationship in Italy and Spain. Across the aggregated studies in these countries, Lewis-Beck notes that the degree of support for this relationship varies significantly, as different measures of economic performance seem to matter in some studies or countries, but not others, or have unexpected directional effects on support for incumbents or opposition parties. As the economic vote is hailed as an important means of empirically establishing the presence and strength of democratic accountability, this variance disturbs norms about democratic practices. If governments are inconsistently held to account for what is consistently one of the policy areas that voters' care most about, there is perhaps little accountability in democracy.

The solution posited to this puzzle in the literature was the clarity of responsibility theory (Powell and Whitten, 1993). The clarity of responsibility theory argues that

the relationship between macroeconomic and electoral outcomes is conditional upon the ease with which voters are able to connect the economy to their vote choice (Duch and Stevenson, 2008; Gomez and Wilson, 2006; Hellwig, 2001; Powell and Whitten, 1993; Whitten and Palmer, 1999). In particular, political institutions play a central role in determining the clarity or complexity of a political system for voters. When political institutions make it clear that one party is responsible for economic policies during the previous administration, credit and blame are easily attributable to that party. However, as policymaking responsibility is shared amongst an increasing number of partisan actors, this attribution becomes more complicated, as multiple parties could reasonably be held responsible for observed outcomes, and so the economy serves as a more blurred indicator of how to vote (Bednar, 2007). Institutions that decrease this clarity of responsibility include bicameralism, coalition and minority governments (Powell and Whitten, 1993), opposition control of committee chairs (Strøm, 1984, 1998), federalism (Lowry, Alt and Ferree, 1998), and international integration (Fernandez-Albertos, 2010). The posited mechanism through which these institutions affect election outcomes is that voters observe the constraints that incumbents face and hold them less responsible for outcomes when they have to cooperate with more partisan actors (Duch and Stevenson, 2008; Powell and Whitten, 1993; Whitten and Palmer, 1999). While some accounts allow for politicians to help bring these constraints to light through their campaign activities (Powell and Whitten, 1993), in others voters are assumed to be highly informed and make complex, rational decisions about how much credit or blame to place on incumbents (Duch and Stevenson, 2008).

The economy provides a means by which politicians are held accountable to voters is premised on the idea that governments take action to increase economic output and that these actions are, in fact, effective. The idea that voters have a readily available means by which to consistently evaluate their elected officials is normatively

appealing. The literature on economic voting consistently links the phenomenon to the concept of democratic accountability (e.g., Duch, 2001; Hobolt, Tilly and Banducci, 2010; Powell, 2000; Powell and Whitten, 1993). Because politicians are thought to have control over macroeconomic policy levers, voters' use of economic outcomes as a means of evaluating government performance allows politicians to be held accountable and thereby incentivized to produce good outcomes. It is posited that when there are multiple hands on these levers, voters are less able to target their rewards or sanctions on individuals and parties in the government appropriately, and so accountability may suffer (c.f., Franzese, 2002).

Early models considered more diffuse concentration of responsibility for macroeconomic policies to lead voters to confusion over who is 'in charge' of the economy, and so lead to lower levels of economic voting (Powell and Whitten, 1993; Whitten and Palmer, 1999). While voters may change their support to other parties between elections, this decision is potentially based on other factors, such as scandals or a general attitude of malaise toward longstanding leaders, these decisions are less strongly linked to measures of government performance when there are more actors who can credibly take the credit or the blame. These accounts (the clarity of responsibility thesis) considered the impact of differences in political institutional settings such as the presence of a bicameral opposition, minority and coalition governments, presidentialism (Samuels, 2004), and federalism (Lowry, Alt and Ferree, 1998) on the degree of economic voting, arguing that their presence should reduce the clarity of responsibility and so reduce the impact of economic outcomes on incumbent electoral prospects. While more recent work considers political institutions as constraining politicians differently than in the clarity of responsibility model, the general relationship between institutional complexity and the strength of the economic vote remains. Duch & Stevenson (2005, 2008) argue that complex institutions serve not to confuse voters about who is responsible for the economy, but make attributions more diffuse. Voters

in their model seek to elect competent economic managers and use the state of the economy as a (noisy) signal of politician competence. In both formulations, political institutions affect the degree to which the economy affects who wins elections.

While there are differences in the observable implications of these two causal mechanisms at the level of the individual voter, their implications are quite similar for the patterns of aggregate incumbent support in elections: more complex divisions of power ought to reduce the effect of the economy on incumbent vote share. Unfortunately, findings on this question are inconsistent. While Powell and Whitten (1993), and later Whitten and Palmer (1999) purported to find evidence of political institutions of moderating effects on incumbent vote share, others, such as Royed, Leyden and Borrelli (2000), find little to support these moderating effects. Despite the inconsistent support for the clarity of responsibility thesis, it is commonly treated as consensus (e.g., Anderson, 2000; DeVries, Edwards and Tillman, 2010; Hobolt, Tilley and Banducci, 2013; León, 2010; Parker-Stephen, 2013). Differences in the object of economic voting, the institutions that affect it, and the aspects of the economy that matter most have led to a bevy of contradictory findings. As Singer writes, "[there] is little consensus in the extant economic voting literature about (a) whether the economy's importance varies and (b) the factors that might explain this variance" (2011, pg. 289). However, as the following section shows, the clarity of responsibility argument's empirical and theoretical foundations are weaker than many believe.

1.2 Problems in the clarity of responsibility literature

The economic voting literature's focus on how political constraints, particularly how formal institutions, moderate the effect of the economy on support for incumbents suffers from both theoretical and empirical limitations. Either problem alone casts the accepted clarity of responsibility theory into question; combined, they produce serious doubts about the way in which institutions affect economic voting.

1.2.1 Theoretical problems

As described above, the macro-level economic voting literature has argued that the strength of this economy-to-election relationship is conditional upon political institutions (e.g. Powell and Whitten, 1993; Whitten and Palmer, 1999). The theoretical underpinnings for this argument rest on two problematic assumptions about the relationship between voters, the economy, and elections: voters have significant stores of political and civics knowledge, and that the occurrence of an election is unrelated to the state of the economy.

High information voters are essential to theories of institutionally contingent economic voting. Powell and Whitten (1993) argue that voters understand the institutional and political constraints that government's face in the formation and implementation of policy. Though they say institutions allow politicians to diffuse blame (pg. 399), they require attentive citizens who receive and accept these messages. Recent work on the individual-level effects of institutional context by Duch and Stevenson (2008) does not posit a mechanism through which voters acquire the large stores of information about both political and non-political actors with significant effects on the state of the economy required of their model. In Duch and Stevenson's formulation, voters know the precise division of power between the government (or relevant political party in coalition governments, where appropriate) and other political and non-political actors. Institutions that provide for a larger number of actors to affect economic outcomes or that increase the variance of a country's economic outcomes reduce the strength of the signal that the economy provides for voters. That is, the economy provides less information about government competence when institutions are more complex than when they are simpler.

These assumptions are at odds with the literatures on political knowledge and perception biases that find most citizens lacking detailed knowledge about politics

(Lupia, 1994; Zaller, 1992) or the economy (Walstad, 2002). The public opinion and political psychology literatures examine the conditions under which voters are likely to know a lot about politics, and find that politically knowledgable individuals are the exception, rather than the rule, in democracy. The way individual voters view both the state of the economy and attribute responsibility between actors depends upon individual characteristics such as partisanship (e.g., Rudolph, 2006) and earlier vote choices (e.g., Elinder, 2012) in addition to factors such as media consumption (e.g., Anderson, Mendes and Tverdova, 2004; Duch, Palmer and Anderson, 2000).

Further, voters are consistently found to know little about politics, particularly political institutions, in a variety of contexts (e.g., Converse, 1990; Gillens, 2007; Lupia, 1994; Zaller, 1992). Institutionally contingent economic voting arguments assert that as political institutions obscure clarity of responsibility between specific politicians or parties and macroeconomic outcomes, the economy matters less for electoral performance (Powell and Whitten, 1993). However, if voters tend to know little about either political institutions or the economy, and their views of the economy are biased by their preexisting partisanships or voting history, then the causal mechanisms through which the clarity of responsibility thesis are purported to work are unlikely in practice. Further, evidence shows that the economy's salience in whether individuals voters support the incumbent increases when the economy is performing poorly, and other issues gain salience when the economy is performing well (Bloom and Price, 1975; Grafström and Salmond, 2010). While these problems do not exclude the possibility of finding statistical relationships between institutions, the macroeconomy, and election outcomes, they cast doubt on the prevailing logic. Nonetheless, as shown in Sections 1.2.2 and 1.3 below, the empirical support for the posited relationships between these factors is weaker than many believe.

The exogeneity of elections to the economy is the second problematic premise of the clarity of responsibility literature. Perhaps arising from the literature's roots in American election forecasting, the literature on the economic vote, and in particular its clarity of responsibility strand, implicitly assume that the timing of elections is fixed. While this is true in several countries (e.g., the United States, Switzerland, and Norway), in most parliamentary countries elections can be held at any time up to parliament's constitutionally mandated maximal term.[2] The opportunistic election timing literature finds that elections called by prime ministers are driven by economic booms, making them potentially different from elections where there is no opportunity to go to the polls early (e.g., Chowdhury, 1993; Ito, 1990). Very little of the economic voting literature has either theoretically or empirically accounted for the possibility that elections occurring at the end of the term may differ in substantively important ways from those held early. Only one paper currently incorporates the potential differences between end-of-term and early elections into studies of election outcomes in the context of economic voting (Samuels and Hellwig, 2010). Samuels and Hellwig (2010) (Table 1) divide elections into those in which the parliament served its full mandate, opportunistic early elections called by the prime minister, and other early elections. They estimate marginal effects of the type of election on the economic vote after separating out those elections with high versus low clarity of responsibility. Samuels and Hellwig find that in high clarity contexts, the economy has little effect on incumbent vote share regardless of how the election came about. However, when considering incumbent retention, they find that incumbents are less likely to retain the prime ministership in high clarity of responsibility contexts when they call elections

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[2]While some would consider the potential for early dissolution to be a defining attribute of a parliamentary system, I choose to employ Strøm's (2000, 265) minimal definition of a parliamentary government as one in which the executive is accountable, through a confidence relationship, to any parliamentary majority. While it is true that most parliamentary countries allow for early dissolution of parliament, several prominent cases, such as Norway and Switzerland, do not allow for such contingencies. Instead, any parliament that cannot form a working government must muddle through until the next constitutionally mandated election date.

themselves, but more likely to stay in power when early elections are brought about in some other way. This difference is

This gap in theory is problematic because it indicates a potential endogeneity bias in our observation of elections: in many of the countries pointed to as evidence of economic voting, it could be that we are observing some elections precisely because of the state of the economy has led politicians to go to the polls at that moment. Recent work by Tavits and Schleiter (2014) shows that opportunistic elections[3] result in higher vote shares for incumbents than do other types of elections. This undermines the causal story posited by the economic voting literature, and could sever links between evidence of economic voting and democratic accountability in parliamentary countries.

Moreover, the factors generally used to explain the timing of elections are related to political institutions (e.g., Kayser, 2005), macroeconomic performance (e.g., Chowdhury, 1993; Ito, 1990), and the likelihood of success or failure at the polls (e.g., Smith, 2004), the very aspects of politics scholars interested in macro-level economic voting consider. This redoubles concerns about the validity of existing theoretical and empirical models of economic voting at the level of election outcomes that exclude the timing of elections. Economic performance affects both incumbent support and the likelihood of an election being held, while the ability to call elections at will is related to the institutions under consideration in the clarity of responsibility literature. We might mistakenly infer that institutions moderate economic voting relationships for voters when, in fact, they serve to empower or constrain politicians from capitalizing on the economy's salience. The true stakes of the relationships between institutions, the economy, and elections are only understood when we bring election timing into the equation.

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[3]Tavits and Schleiter (2014) define opportunistic elections as elections held more than one month prior to the end of the parliamentary term and were called by the prime minister, cabinet, or government parties in parliament.

1.2.2 Empirical problems

While Section 1.2.1 noted two prominent theoretical problems in the literature on economic voting, and especially the prominent clarity of responsibility literature, it had little to say about the strength of the empirical findings in the literature. Many scholars treat the idea that the economy is a strong predictor of election outcomes as established fact. Unfortunately, extant studies find mixed evidence in support of the economic vote at the national level.

Early studies of the effects the macroeconomy on U.S. Congressional election returns found, variously, no effects on support due to changes in unemployment but significant effects arising from changes in real income (Kramer, 1971); no effects from either changes in unemployment or real income (Stigler, 1973); and that only during downswings does the economy affect support (Bloom and Price, 1975; Clagget, 1986). These early mixed findings in the United States are compounded by equally puzzling findings abroad. The early cross-national economic voting literature found that the factors that mattered, and the degree to which they mattered, vary significantly both across countries and between elections (Lewis-Beck, 1988).

The response to these inconsistent findings was to consider how context shapes the strength of the economic vote. Powell and Whitten (1993) were the first to provide a systematic account of the contextual effects of the economic vote. Their study proposed that a set of institutions can serve to diminish or magnify economic voting effects on election outcomes and tested them in a broad set of advanced industrialized countries. Their claims that a set of parliamentary attributes that serve to mystify responsibility for policy outcomes – namely opposition control of committee chairmanships, opposition control of an upper house, weak party cohesion, minority government status, and coalition government status – reduce the effects of GDP growth, unemployment, and inflation on incumbent government vote share has largely been taken as accepted knowledge in the literature. Powell and Whitten's concept of

clarity of responsibility is consistently integrated into any cross-national comparison of economic voting at the macro- or micro-level. While refinements were made to the original models and methods, perhaps most notably in Whitten and Palmer's (1999) re-examination of the original Powell and Whitten article that allows for time varying clarity of responsibility within countries, the underlying validity of their findings is still broadly accepted and some version of the clarity of responsibility variable is still a widely used control in statistical analyses.

However, some scholars have challenged the clarity of responsibility argument. Royed, Leyden and Borrelli (2000, 2003*a*,*b*) argue that misspecified statistical models and inappropriate interpretation of results led researchers to believe that the clarity of responsibility institutions serve to moderate the effects of the economy on election outcomes when, in fact, they have no effect. In his 2007 meta-analysis of the economic voting literature, Anderson states that, "the evidence available to date strongly suggests that the economic voting effect ... is intermittent, highly contingent, and substantively small," and that, "economic effects on election outcomes do not qualify as a 'robust fact' about elections" (286). Kayser (2013: 1) finds that support for the economic vote is "disconcertingly sporadic." The existing evidence has tended to be interpreted as either supportive of the economic voting hypothesis or of there being no significant relationship. This dissertation shows that the relationship may be significant, but work through an alternative mechanism to that hypothesized by existing economic voting theories.

The relationship described above is one of context conditionality (Franzese, 2002). Theory tells us that the relationship between economics and elections is *moderated* by the institutional context in which political actors (both elected officials and voters) find themselves. For example, prime ministers constrained by the need to compromise with coalition partners or an upper house controlled by an opposition party hold a lesser share of responsibility for policy outcomes than do parties ruling alone that face

no significant challenges from other institutional veto players (Narud and Valen, 2010; Powell and Whitten, 1993; Tsebelis, 2002). Knowing these constraints, or perhaps simply being confused by them, voters do not attribute all responsibility for outcomes to the party of the prime minister. Instead, as constraints increase, governing parties are thought to have less direct control over policy. In the case of economic policy, they would be less accountable not only for the policies but for the final outcomes those policies produce.

This moderating effect of institutions implies an interactive model of the economy's impact on election results of the general form shown in Eq. 1.1. According to Brambor, Clark and Golder (2006), the empirical estimation of moderation effects requires one to estimate regression coefficients for both the variable of interest (*Economy*), the moderating variable (*Clarity*), and their interaction (*Economy*Clarity*). Once all three coefficients are estimated, researchers can determine the marginal effect of a change in the moderating variable on the variable of interest's impact on the outcome variable. It is here that problems arise in the empirical clarity of responsibility literature.

$$Y = \beta_0 + \beta_1 Economy + \beta_2 Clarity + \beta_3 Economy * Clarity + \epsilon \qquad (1.1)$$

Of those studies that use multiplicative interaction models two main problems exist. The first is that they fail to include all constitutive terms[4] in the empirical model; the second is that while including all constituent terms they fail to properly interpret the models. As Brambor, Clark and Golder (2006) discuss, these are neither uncommon nor trivial problems in the broader discipline. Failing to include all constitutive terms, while sometimes appropriate for theoretical reasons (e.g., if one thought that the effect of one term was zero unless the interacted term was present,

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[4]The constitutive terms, sometimes called the "main effect" or "direct effect," are the two or more variables used to produce the interaction term. For example, *Economy* and *Clarity of Responsibility* are the constitutive terms in the interaction in Eq. 1.

see Kam and Franzese 2007), causes estimation problems if the theory indicating a zero effect is wrong, as the excluded term is correlated with the dependent variable and–by construction–the interaction term, causing biased estimates of the coefficient. This is a problem in Powell and Whitten (1993) and Whitten and Palmer's (1999) pioneering work on clarity of responsibility. While there have been a number of papers building on Powell and Whitten in the 22 years since its publication, few have placed clarity of responsibility in the center of their work. Instead, subsequent work has generally controlled for clarity of responsibility while focusing on other potential confounders to contribute to our understanding of elections. In order to better evaluate foundational claims of the economic voting literature, I replicate Whitten and Palmer's work and then specify their empirical model more fully.

1.3 Empirical replication and extension

To assess whether the methodological errors described in Section 1.2.2 actually lead to inferential errors, this section first replicates Whitten and Palmer's (1999) findings to ensure that the data collected for this dissertation closely approximates that used in comparable studies. Important estimation problems are then addressed with corrected models that show little empirical support for the clarity of responsibility theory. Finally, a meta-analysis of more than 1,600 estimated regressions of the clarity of responsibility theory that considers many possible ways of measuring both outcome and various independent variables, in multiple combinations is presented in Appendix B. This meta-analysis also fails to support the clarity of responsibility theory.

1.3.1 Replication

Whitten and Palmer (1999) argue that the degree to which governments are rewarded or punished for economic outcomes is a function not only of the clarity of

responsibility of the government, but also its composition. They claim that different types of governments benefit more through strong performance in some types of economic output than they are by others. As such, they argue that right governments, as the traditional protectors of capital, are expected to focus on maintaining low inflation and so are punished more harshly for a failure to produce that. Left and center governments, with bases of support stemming from the working classes, are expected to focus on generating low unemployment and so voters are expected to punish them more severely than right governments for higher rates of unemployment. Further, they argue that coalition governments, having to compromise between the various parties in government, will focus on the 'lowest common denominator' of growth; as such, they are rewarded more for producing high growth than are single-party governments. Whitten and Palmer also test the claim that minority governments ought to gain more votes in the next election because voters recognize that these incumbents are unable to pass legislation without the support of other parties in the parliament. However, the longer a minority government is in power the smaller this benefit of the doubt given them will be, as minority governments are forced to compromise their policy agendas time and again due to their very dependency on creating new coalitions for each policy. Whitten and Palmer also make that case that the greater the number of parties in the government, the fewer votes the government as a whole should lose since a vote away from one member of the governing coalition has a higher likelihood of being transferred to another coalition member. Finally, they include a lagged dependent variable in their analysis to account for the autoregressive nature of the data (pg. 55 Whitten and Palmer, 1999). Many of the hypotheses tested in this extension of Powell and Whitten (1993) are conditional in nature, requiring the inclusion of interactive terms and their constitutive terms.

Whitten and Palmer (and my replication) use government vote share as their dependent variable (Wolfram, 2011; Ortiz de Zárate, 2010). The original sample con-

tains elections in advanced industrialized democracies[5] between 1967 and 1994; this data is expanded to include elections through 2010 in the dissertation's full sample. The independent variable of interest in their analysis is clarity of responsibility. They measure clarity as an additive index composed of the presence of bicameral opposition, a minority government, weak parties, and opposition control of committee chairs. This index theoretically ranges from 0 to 4; however, there are only a few cases in which there are three of these factors present in any parliament. Because Whitten and Palmer split their sample and run separate regressions on each sub-sample, they combine the few observations with a value of 3 with the larger group of observations that take on a value of 2, leading to three categories of clarity. In the replications below, I do the same, but reverse their coding so that *clarity* takes on a value 0 when institutions are least clear, 1 when there is middling clarity, and 2 when institutions are most clear. Economic performance is measured as growth, inflation, and unemployment relative to OECD averages. Coalition government takes on a value of 1 when multiple parties controlled government together and 0 when a single party controlled the government prior to the election. Right governments are those scoring a 1 or 2 on Castles and Mair's (1984) scale; center/left governments are those governments scoring 3 through 5. These are dichotomized such that *right* takes on a value of 1 when *left* takes on a value of zero, and vice versa. The number of government parties (*# gov parties*) is a count of the number of parties in the government prior to the election. *Minority* takes on a value of 1 when the government controls fewer than 50% of the seats in parliament and zero otherwise. *Minority duration* is measured as the number of months that an incumbent minority government was in power; it is valued 0 for majority governments. Summary statistics for all of these variables can be found in Table A.1 and A.2 in the appendix.

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[5]Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom, and United States are included in the sample provided by Whitten and Palmer. The extended dataset contains all elections from these countries plus Greece, Luxembourg, and Portugal.

Table 1.1 shows the original estimates reported in Table 4 of Whitten and Palmer (1999, pg. 58) in the first, third, and fifth columns and the corresponding replication estimates using the data collected for this dissertation in the second, fourth, and sixth columns.[6] The expected sign and, when clearly indicated from theory, magnitude of each coefficient is reported beside the coefficient name on the far left of the table. Comparing each set of columns, the replication shows broadly similar results to those reported in Whitten and Palmer's work; nearly all significant coefficients from their analyses are signed the same and of similar magnitudes in my replications, though they sometimes fail to reach similar levels of statistical significance in the replicated analyses. I attribute the larger standard errors and slight changes in coefficients in my analyses to slightly different measurements of the economic variables[7]. When reading the coefficients from this and subsequent tables, it is important to remember that the coefficients on the constitutive terms (e.g., *comparative growth, comparative inflation, comparative unemployment*) indicate the effect of a one-unit shift of that variable when the variable it is interacted with (e.g., coalition or, later, clarity of responsibility) takes on a value of zero. For example, when institutions are least clear (column 6), the effect of a one unit increase in *comparative growth* for a single party government is an increase in government vote share of 1.83% according to the replication results in the last column. This same increase in comparative growth is estimated to increase government vote share by only 1.32% for a coalition government.

It is interesting to note that in all but one case (*comparative growth* in the least clear contexts upon my replication) the constitutive economic performance coefficients fail to reach standard levels of significance. This finding seems to be in line with their argument that particular attributes of a government lead voters to assess them on

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[6]The observations used in Table 1.1 are only those used in Whitten and Palmer's original sample of elections.

[7]For instance, I use the IMF's World Development Indicators for my measures of growth and inflation, where Whitten and Palmer used OECD data; I also weight economic performance to the day, whereas it is unclear whether they use the previous year's performance or weight by quarter.

Table 1.1: Replication of Whitten and Palmer's (1999, Table 4) Main Findings

	$Most_{W\&P}$	$Most_{Rep}$	$Middle_{W\&P}$	$Middle_{Rep}$	$Least_{W\&P}$	$Least_{Rep}$
$Vote_{t-1}$ ($0 < \beta < 1$)	0.529**	0.564***	0.751**	0.710***	0.888**	0.942***
	(0.13)	(0.15)	(0.05)	(0.08)	(0.07)	(0.11)
Comparative Growth (+)	-0.424	-0.063	-0.187	0.108	0.367	1.828**
	(0.25)	(0.45)	(0.21)	(0.70)	(0.23)	(0.58)
Coalition*Comp Grow (+)	0.828*	0.972	0.491	-0.993	-0.616	-0.504
	(0.38)	(0.83)	(0.54)	(1.25)	(0.43)	(1.13)
Comparative Inflation (-)	0.939	1.127**	-0.525	-0.597**	-0.210	0.127
	(0.30)	(0.36)	(0.18)	(0.22)	(0.22)	(0.39)
Right*Comp Infl (-)	-1.694**	-1.196*	0.362	0.865**	-0.040	0.053
	(0.57)	(0.56)	(0.28)	(0.32)	(0.36)	(0.51)
Comparative Unemployment (-)	-0.127	-0.020	0.147	0.285	0.168	-0.654
	(0.13)	(0.17)	(0.23)	(0.27)	(0.27)	(0.45)
Left*Comp Unemp (-)	-1.771**	-0.089	-0.118	-0.689*	0.563	0.044
	(0.46)	(0.30)	(0.29)	(0.34)	(0.33)	(0.51)
# Gov Parties	2.935**	2.705*	1.363**	-0.315	-0.190	0.439
	(0.877)	(1.06)	(0.375)	(0.92)	(0.69)	(0.95)
Minority (+)			6.46*	-0.918	-2.62	0.214
			(2.49)	(3.26)	(3.52)	(3.57)
Minority Duration (-)			-0.425**	-0.169	-0.024	-0.158*
			(0.09)	(0.16)	(0.05)	(0.07)
Constant (+)	11.02*	12.296	7.62**	14.389***	7.54	3.201
	(5.26)	(6.55)	(2.60)	(3.77)	(4.86)	(6.75)
R^2	0.831	0.708	0.898	0.770	0.929	0.813
N	39	39	59	57	42	34

(a) Panel corrected standard errors in parentheses.

The N for both the Most and Middle clarity samples has been altered from those reported in Whitten and Palmer (1999). In their regression results they report 40 and 60 observations, respectively. However, in their list of elections (Table 3, pg. 57) they only list 39 and 59. Since I am unable to discern what observations they may have included in their regression analyses but omitted in Table 3, I was unable to determine what other elections to include in my analyses.

particular dimensions of the economy, but absent those attributes, they will focus on different indicators of performance. Since, for example, it is right-wing governments that are expected to be most accountable for inflationary performance, this implies that the absence of a right-wing government (i.e., a center or left-wing government, when the interaction term takes a value of zero) ought to lead inflation to be less important or a completely unimportant determinant of government vote share. Evaluating the coefficients on the interaction terms is trickier, unfortunately. In the *most clear* category, the coefficients on the interaction terms are in the expected direction for all variables. Coefficients for the interactions of growth and unemployment in the *middle clear* category are correctly signed in Whitten and Palmer's analysis while the interaction term including inflation is incorrectly signed; in my replication the interaction on *comparative growth* is incorrectly signed while my results are similar to those of Whitten and Palmer for the interaction terms that include inflation and unemployment. Finally, in the *least clear* category, the coefficients on all of the interaction terms except Whitten and Palmer's estimation of *right*comp inflation* are incorrectly signed. Given their own results, the support for context conditional economic voting is tenuous.

However, as stated in Section 1.2.2, the decision not to include constitutive terms may have resulted in significant bias of the coefficient estimates in Whitten and Palmer's work and, by extension, my replication. Table 1.2 shows a fully specified replication of their model and Table 1.3 provides the marginal effect of each economic variable on government vote share at different levels of clarity of responsibility. You will notice in Table 1.2 that the constitutive terms *coalition* and *right* have been added to the regression; further, because *right* and *center/left* would be perfectly collinear (a value of one on *right* requires a value of zero on *center/left*), I omit *center/left* and interact *comparative unemployment* with *right*. This leads to a slightly different interpretation of the coefficient on *comparative unemployment* than in the previous

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Table 1.2: Whitten and Palmer's Economic Voting Model, Fully Specified

	Most	Middle	Least
$Vote_{t-1}$ $(0 < \beta < 1)$	0.640***	0.642***	0.832***
	(0.14)	(0.08)	(0.10)
Comparative Growth (+)	-0.920	0.230	2.425**
	(0.84)	(0.55)	(0.76)
Coalition (0)	-2.127	1.535	-4.173
	(3.23)	(2.13)	(4.60)
Coal*Comp Grow (+)	1.484	-0.405	-2.004
	(1.09)	(1.22)	(1.34)
Comparative Inflation (-)	0.701	0.072	0.512
	(0.36)	(0.24)	(0.39)
Right (0)	6.993	-3.297	-2.756
	(3.76)	(1.87)	(3.27)
Right*Comp Infl (- or 0)	-1.051*	-0.187	-0.819
	(0.46)	(0.33)	(0.59)
Comp Unemployment (-)	0.417	0.444	-0.132
	(0.25)	(0.36)	(0.52)
Right*Comp Unemp (+)	-1.167*	-0.319	0.777
	(0.55)	(0.39)	(0.79)
# Gov Parties (+)	4.286	0.983	1.006
	(2.26)	(1.21)	(2.07)
Minority (+)		5.409*	-10.055*
		(2.55)	(4.28)
Minority Duration (-)		-0.473***	-0.031
		(0.06)	(0.08)
Constant (+)	2.436	14.259***	17.117*
	(5.91)	(3.99)	(7.16)
R^2	0.780	0.780	0.920
N	36	60	35

Panel corrected standard errors in parentheses.

Table 1.3: Marginal effects of Growth, Inflation and Unemployment on Government Vote Share as Clarity and Government Composition Change

| | | Clarity | | |
		Most	Middle	Least
Comp Growth	Single Party	-0.920	0.230	2.425**
		(0.84)	(0.55)	(0.76)
	Coalition	0.564	-0.175	0.421
		(0.78)	(1.11)	(1.05)
Comp Inflation	Center/Left Gov	0.701	0.072	0.512
		(0.36)	(0.24)	(0.39)
	Right Gov	-0.349	-0.115	-0.307
		(0.29)	(0.23)	(0.39)
Comp Unemployment	Center/Left Gov	0.417	0.444	-0.132
		(0.25)	(0.36)	(0.52)
	Right Gov	-0.749	0.124	0.645
		(0.46)	(0.27)	(0.63)

table. Here the coefficient on *comparative unemployment* is the effect of a one unit change in *comparative unemployment* for center and left-wing governments. As such, we expect this coefficient to be negative and significant and the coefficient on the interaction with *right* to be positive.

Looking at the estimated coefficients on *comparative growth* across levels of clarity, we see that it is only in the least clear contexts that growth has a positive and significant predictor of incumbent single-party government vote share. The coefficient on *comparative growth* is negative for the most clear contexts and indistinguishable from zero for the middling clarity cases. Given that we would expect either positive or insignificant results this is not damning evidence, though it is not particularly supportive of their theory either. If anything, it implies that an increase in growth relative to the rest of the OECD only seems to help those governments in which there is the least amount of clarity (last column) and that when institutions lead to the highest degree of clarity, growth has no relationship to government vote share (first column) and may in fact harm the government!

Comparative inflation is never significant and always estimated to be greater than

zero for left-wing and center governments. Since their theory predicts that right-wing governments would be punished more harshly for increased inflation, the lack of significant coefficients on *comparative inflation* at any level of clarity of responsibility when *Right* is zero does not necessarily undermine their theory, so long as right-wing governments are punished more harshly for inflation, evidenced through a negative and significant coefficient on the interaction of *Right* and *Comparative Inflation* and a negative and significant marginal effect of inflation, particularly in the most clear case. The third and fourth rows of Table 1.3 show that this requirement is unfulfilled: comparative inflation, while negative for right-wing governments, is never statistically significant.

Comparative unemployment estimates the relationship between relative unemployment rates and vote share for left-wing governments. The coefficient estimate shows a significant relationship at all levels of clarity of responsibility but that the estimated effect is incorrectly signed for both the most and middle clarity coefficients. Further, the only case where the coefficient is signed correctly (though insignificant) is the lowest clarity case, even though we would expect that the coefficient would be the most negative when institutions are most clear.

Whitten and Palmer's theory could be read to imply that there should be no relationship between government vote share and a particular economic outcome when the necessary condition is absent; as such the null results on the constitutive growth and inflation terms could be taken as supportive evidence of their partisan conditional economic voting model. However, as we can see in Table 1.3 the presence of those necessary conditions does not lead to significant or even appropriately signed estimated marginal effects. Table 1.3 shows the marginal effects of *comparative growth, inflation*, and *unemployment* in the absence[8] (top two lines) and presence (bottom two lines) of the relevant modifying variable. Looking at the marginal effects of these

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[8]Coefficients and standard errors for the absence condition are simply the coefficients of the constitutive term in Table 1.3.

economic indicators we see that there exist no significant relationship between any of these measures of economic performance and government vote share conditional on attributes of the government. The marginal effect of growth for coalition governments is indistinguishable from zero at all levels of clarity of responsibility. Likewise, center and left-wing governments are not punished more stringently for higher unemployment than are their right-wing counterparts. In fact, at the highest level of clarity (first column) the positive marginal effect of *comparative unemployment* for center and left governments nearly reaches traditional levels of significance ($p < 0.064$), indicating that when policy responsibility is easiest for voters to discern and the policy preferences of the government is to pursue low unemployment, increasing unemployment relative to the OECD average actually *helps* those governments. The only variable for which the marginal effect is signed correctly for all three levels of clarity in the presence of the requisite modifying is *comparative inflation*. However, in no case is *comparative inflation*'s estimated marginal effect on government vote share significantly different from zero. The lack of robust relationships between economic performance, partisan/governmental attributes, and government vote shares across differing degrees of institutional clarity of responsibility in a fully specified model suggests that the clarity of responsibility argument is weaker than many believe it to be; those trends that do exist generally move in the opposite direction to those of the clarity of responsibility argument – if any relationship exists, it is that clearer institutions are associated with *less* economic voting, not *more*.

More recent studies have built on the foundations of this institutionally conditional economic voting theory and have tested the implications of their expanded theories using appropriately specified empirical models. Unfortunately, of those studies that include all constitutive terms (e.g., Duch and Stevenson 2008, Table 7.1[9]),

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[9]Duch and Stevenson (2008) exclude their dummy of Leftist PM; however their main findings related to trade and a limited state sector do include all constitutive terms. There are similar omissions in their other empirical tests.

few properly interpret their results.[10] Specifically, they fail to calculate substantively meaningful marginal effects and standard errors. The nature of the theory of institutionally dependent economic voting assumes that the effect of the economy on elections varies over different degrees of clarity of responsibility. As discussed above when considering the ramifications of omitting constitutive terms, the variables included in interactive models matter not only on their own but affect our understanding of the information provided by the other variables, both the magnitude of the effect and its significance.

In particular, when interpreting the significance of the interaction term one must compute the standard error of the variable of interest (in this study, that of economic performance) at different values of the interacted term. Computing the standard error requires the use of the variance of the interacting variables and their covariances. It is therefore not straightforward to comprehend significance by looking at results reported in a regression table: the standard errors on the individual coefficients could be significant, but the marginal effect can be insignificant. Without reporting the standard errors at different values of the conditioning variable, we cannot tell if the relationship is conditionally significant at all, some, or any values of the modifying variable (Brambor, Clark and Golder, 2006). Hence, statements like that in Duch and Stevenson (2008:204), when describing their results that economic constraints moderate the effects of the economy on vote choice, that, "[t]hese estimates clearly support the hypothesis because all of the coefficients are statistically significant and in the expected direction," is incorrect. We are missing key pieces of information that allow us to make appropriate inferences about the conditional relationships we are interested in.

Below, I simplify the models used by Whitten and Palmer (1999) in another

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[10]Notable exceptions at the macro-level is the work by Hellwig and coauthors (2001, 2007, 2008). However, Hellwig's work has not focused on the impact of domestic political institutions on government electoral performance, instead focusing on how changing exposure to international markets affects electoral performance.

attempt to find evidence of traditional interpretations of institutionally conditional economic voting. Section 1.3.2 first shows a streamlined Ordinary Least Squares (OLS) model using panel-corrected standard errors that includes the same variables as above. In Appendix B I then describe the results of more than 1600 estimated regressions that consider different measures of both the key independent and dependent variables, as well as dividing the clarity of responsibility index into its constituent parts to find some evidence of clarity of responsibility's impact on the economic vote. Much like Anderson (2007), I find the evidence in favor of institutionally conditional economic voting limited.

1.3.2 Simplified models of economic voting

Given that received wisdom is based on misspecified models, the first order of business is to correctly specify a model of economic voting at the macro-level. In order to return to the most essential aspects of the clarity of responsibility theory, the models below do not condition the effects of economic outcomes on the partisanship of the government as in Whitten and Palmer, nor does it split the sample, as this reduces the power of the tests by limiting the number of observations in any regression. Further, splitting the sample implicitly assumes that all variables–including control variables such as previous vote share–have different effects in each institutional context. Instead, I create a model similar to that in Eq. 1.1, in which each economic indicator is interacted with a measure of clarity of responsibility and both constitutive terms are included in the regression. As shown below, these simple baseline regressions elucidate a puzzle for the economic voting literature: why does the economy's effect vary?

Once again, I use the total government vote share as my dependent variable. The total government vote share is used to ensure comparability between this and previous work. This dependent variable ranges from 6.4 (Spain's 1982 UCD incumbent

government) to 95.8 (Greece's 1990 incumbent grand coalition) percent of the vote. I employ an OLS model with panel-corrected standard errors (Beck and Katz, 1995). I include the government's vote share in the previous election (the lagged DV) to help protect against autocorrelation across elections.

The models below are estimated using the extended dataset gathered for this dissertation. It includes 21 countries[11] between 1967 and 2010. To measure economic performance, I use both the comparative measures of growth, unemployment and inflation (*comparative economic measures*), as above, and the difference between the economic growth, inflation, and unemployment in the year leading up to the election from the country's average growth, inflation, and unemployment for the previous 4 years (*relative economic measures*). It is likely that recent economic experiences influences voters' economic expectations, indicating that a time-based comparison may be as appropriate than a cross-national one. By differencing current economic conditions from those of the recent past, we can proxy for the incumbents' performance relative to the expectations that reasonable voters would have for that performance. Further, due to differences in sticky institutions such as labor market regulations and central bank independence, some countries' natural levels of growth, inflation, and unemployment may be consistently higher or lower than the OECD average, leading us to incorrectly predict electoral support for these countries. Both measures are in line with the "first derivative" mentality that voters are posited to hold - voters react more to changes in income, unemployment and inflation than to their levels (Kiewiet, 2000). Both measurement strategies weight economic performance by the proportion of the current fiscal year that had passed by the time of the election. Estimates that used non-differenced growth, inflation and unemployment numbers produce substantively similar but less significant results. The first two columns of Table 1.4 use

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[11]All countries included in Whitten and Palmer's analyses are included, except Switzerland, due to the long-standing agreement between the four major parties that ensure that the governing coalition always includes them, regardless of the relative vote shares of each constituent party. It further includes Greece, Luxembourg, and Portugal.

the *comparative economic measures* as in the previous estimates, while the third and fourth columns of use the *relative economic measures*.

I also use two different measures of clarity. For the first, I use the clarity of responsibility index developed in Powell and Whitten (1993) and updated in Whitten and Palmer (1999) used in estimates found in Tables 1.1 and 1.2. This measure of clarity is an additive index by which the presence of a bicameral opposition, opposition control of committee chairs, weak party voting cohesion, and minority status each serve to decrease clarity. The results using Whitten and Palmer's measure of *clarity* found it columns 1 and 3 of Table 1.4. The second measure is very similar to the first, however opposition control of committee chairs is omitted and government coalitions is added to the index. This is done to measure attributes that align more closely with the theoretical underpinnings of the clarity of responsibility thesis. Clarity of responsibility assumes that voters are able to observe and/or understand the arguments about constraints made by politicians. Whether the government is composed of a single party or is a coalition is more readily observed by voters than whether the parliament's committee chairmanships are distributed proportionally or not. The results using *alternative clarity* can be found in columns 2 and 4 of Tables 1.4. Recall from Tables 1.1 and 1.2, Whitten and Palmer's decision to split their sample led them to combine the least clear cases with those cases that were one level clearer due to a paucity of observations in the least clear category. This is unnecessary in my specification, so there are four categories observed for both measures of clarity, with 0 being the least clear and 3 being the most clear.

Table 1.4 shows the results of the estimated effects of the economic vote on total government vote share. There are a few important patterns to note here. First, recall that all of the coefficients on the economic variables show the estimated effects of that measure of economic performance when clarity of responsibility is at its lowest, while the interaction of that variable and clarity shows the moderating effect of institutions.

Table 1.4: Government Vote Share as a function of Clarity of Responsibility and Economic Performance.

	Comparative Economic Measures		Relative Economic Measures	
	W&P Clarity	Alternative Clarity	W&P Clarity	Alternative Clarity
Growth (+)	0.112	-0.164	1.045**	1.837**
	(0.823)	(0.839)	(0.394)	(0.602)
Clarity (0)	0.248	-1.102	-0.221	-1.093$^{\alpha}$
	(0.788)	(0.704)	(0.555)	(0.583)
Clarity*Growth (+)	0.128	0.295	-0.831**	-0.821**
	(0.343)	(0.423)	(0.323)	(0.281)
Inflation (-)	-0.494	0.040	0.555$^{\alpha}$	0.550
	(0.251)	(0.388)	(0.321)	(0.487)
Clarity*Inflation (-)	0.272	0.052	-0.136	-0.065
	(0.193)	(0.171)	(0.241)	(0.218)
Unemployment (-)	0.281	-0.026	-0.832$^{\alpha}$	-0.906
	(0.449)	(0.458)	(0.481)	(0.748)
Clarity*Unemployment (-)	-0.186	-0.044	-0.185	-0.038
	(0.191)	(0.219)	(0.404)	(0.358)
$Vote_{t-1}$ (+)	0.774***	0.775***	0.800***	0.800***
	(0.046)	(0.045)	(0.042)	(0.041)
Constant (+)	7.332**	10.159***	7.024***	8.662***
	(2.519)	(2.601)	(2.104)	(2.333)
R^2	0.605	0.608	0.629	0.636
N	237	237	240	240

(a) Panel corrected standard errors in parentheses. α = p $\leq$ 0.10, * p = $\leq$ 0.05, ** p = $\leq$ 0.01, *** p = $\leq$ 0.001

Table 1.5: Marginal Effects of Economic Outcomes on Government Vote Share conditional on Clarity, Full Sample

			Clarity			
			Low	1	2	High
Growth	Comparative	Clarity$_{W\&P}$	0.112 (0.823)	0.241 (0.510)	0.369 (0.281)	0.497 (0.365)
		Clarity$_{Alternative}$	-0.164 (0.839)	0.132 (0.458)	0.427 (0.271)	0.722 (0.544)
	Relative	Clarity$_{W\&P}$	1.045 (0.394)	0.214 (0.193)	-0.616$^{\alpha}$ (0.365)	-1.447* (0.651)
		Clarity$_{Alternative}$	1.837** (0.602)	1.016** (0.347)	0.195 (0.188)	-0.626$^{\alpha}$ (0.330)
Inflation	Comparative	Clarity$_{W\&P}$	-0.494 (0.251)	-0.222 (0.275)	0.051 (0.147)	0.323 (0.204)
		Clarity$_{Alternative}$	0.042 (0.839)	0.092 (237)	0.144 (0.142)	0.196 (0.206)
	Relative	Clarity$_{W\&P}$	0.555 (0.321)	0.419 (0.172)	0.283 (0.268)	0.148 (0.480)
		Clarity$_{Alternative}$	0.550 (0.487)	0.486 (0.292)	0.421* (0.168)	0.357 (0.258)
Unemployment	Comparative	Clarity$_{W\&P}$	0.281 (0.449)	0.095 (0.275)	-0.091 (0.151)	-0.276 (0.207)
		Clarity$_{Alternative}$	-0.026 (0.458)	-0.070 (0.258)	-0.113 (0.139)	-0.157 (0.261)
	Relative	Clarity$_{W\&P}$	-0.832$^{\alpha}$ (0.481)	-1.017*** (0.275)	-1.202* (0.496)	-1.387 (0.863)
		Clarity$_{Alternative}$	-0.906 (0.748)	-0.944* (0.434)	-0.982*** (0.273)	-1.020* (0.466)

(a) Note: $\alpha = $ p ≤ 0.10, * p $= \leq 0.05$, ** p $= \leq 0.01$, *** p $= \leq 0.001$

Since higher values on clarity mean there are fewer encumbrances on voters' abilities to attribute responsibility, the coefficients on the interaction and constitutive terms ought to be signed in the same direction. Looking at the first two columns, when using the *comparative economic measures* none of these constitutive terms reach statistical significance and half are incorrectly signed. The coefficients on the interactions between clarity of responsibility and both comparative unemployment and growth are correctly signed.

The constitutive terms for growth and unemployment are both correctly signed in the regressions in columns 3 and 4 in Table 1.4 that employ *relative economic measures*, three of which are significantly. However, the estimated effects of increased inflation over the average rates of the previous four year is positive, nearing conventional levels of significance when using Whitten and Palmer's measure of clarity of responsibility. The signs on the coefficients on the interaction terms are correctly signed for both inflation and unemployment, but incorrectly signed and significant for growth. However, as in the discussion of earlier results in Table 1.1, it is not until we examine the marginal effects that we can determine the support for the clarity of responsibility theory.

Table 1.5 shows the estimated marginal effects of a one-point increase in our measures of economic performance at each level of clarity of responsibility. The table is divided first by the general measure of economic performance (growth, inflation, or unemployment rates), then by whether the cells indicate use of the *comparative* or *relative economic measures* in the second column. The third column indicates which measure of clarity of responsibility is used: Whitten and Palmer's or the alternative measure described above. The final four columns show the marginal effects of a one-point increase in the economic measure under consideration on the vote share of the incumbent government in that clarity context, as well as the estimated standard error around that effect.

Beginning with the marginal effects of *comparative growth*, we can see that at no level of clarity of responsibility for either clarity measure is there an effect that significantly differs from zero, though the estimates do become more positive. When *relative growth* is used as the measure of the economy there are some statistically significant marginal effects. Unfortunately, these effects are going in the opposite direction to theory, with the largest positive effects of growth occurring at the lowest levels of clarity of responsibility for both clarity measures, and both ending with negative and statistically significant estimated marginal effects of growth at the highest levels of clarity.

The marginal effect of an increase in *comparative inflation* is never statistically significant for either measure of clarity at any level. It is only at a middling level of *alternative clarity* that there is a statistically significant marginal effect for *relative inflation* on government vote share, but as in the case of the statistically significant findings for relative growth, its direction runs counter to theoretical expectations.

Finally, considering the marginal effects of unemployment, *comparative unemployment* is not significant at any level or measure of clarity of responsibility. The marginal effect of *relative unemployment* is more complex. When moderated by Whitten and Palmer's measure of clarity of responsibility the marginal effect of unemployment is negative and marginally significant at the lowest levels of clarity. The marginal effect becomes more strongly negative as clarity increases, but is no longer statistically significant at the highest level of clarity of responsibility. This lack of significance in the highest clarity cases could be due to there being too few observations (only 15). The marginal effect of *relative unemployment* is negative at all levels of *alternative clarity*, and is statistically significant as clarity increases beyond its lowest observed level. The findings from *relative unemployment* are the only evidence in favor of clarity of responsibility moderating economic voting at the macro-level. Overall, the evidence seems to undermine the accepted theory of economic voting at the level of

election outcomes. But four regressions do not disprove a theory.

The appendix to this chapter describe the results of 1,620 regressions that address potential shortfalls of the models above. These regressions broke the clarity of responsibility measures above into their component pieces and interacted them with various measures of both our dependent and independent variables. Overall, in less than 30 percent of the 1,620 estimated regressions were both the constitutive economic term's coefficient and the interactive term coefficient signed in the expected direction. Of these, there were only 16 regressions (less than 1 percent of the total) in which these correctly signed pairs of coefficients were statistically significant. Further, all 16 pairs of coefficients were found when unemployment was the economic variable under consideration. This is incredibly weak evidence in favor of the clarity of responsibility thesis. Equally troubling, a similarly sized proportion of estimates found just the opposite relationship, with approximately 35 percent of all estimates signed in a way that would support a perverse relationship between economic voting and clarity of responsibility wherein better economic performance for governments with high levels of control over policy were punished for this performance. Of these cases, many more produced statistically significant marginal effects: 98 sets were statistically significant (approximately 6 percent). Further, the number of cases in which the constitutive term is correctly signed and paired with an incorrectly signed interactive term is nearly identical to the number of cases in which the opposite is true, indicating no more support for an unconditional explanation of economic voting than one conditional on political institutions. Overall, the meta-analysis provides no substantial support for the clarity of responsibility theory. As such, the significant variation in economic voting at the election level identified in the literature is still largely unexplained. Below I provide an overview the framework for an alternative explanation of the variations in economic voting developed here and a description of the remainder of the dissertation.

1.4 Strategic politicians and the economy: the plan going forward

Due to the economic voting literature's empirical origins in the United States (e.g., Hibbs, 1977) and the important contributions of citizen perceptions of the economy on their vote choices (e.g. MacKuen, Erikson and Stimson, 1992; Kiewiet and Kinder, 1979), scholars of economic voting have focused on voters, while politicians are largely excluded from theoretical or empirical analysis in the literature. However, as discussed in Section 1.2.1, voters are unlikely to hold much knowledge of how power is divided between political parties in parliament and to focus their attributions on the parties of the most visible policy maker, likely the country's premier. If voters are unlikely to possess the institutional knowledge to reward or punish politicians based on their responsibility for policy outcomes, but the economy's effect varies across elections, then another mechanism must be behind the unexplained variance in economic voting at the level of elections.

This dissertation argues that shifting the focus of economic voting analyses from voters to politicians leads to a different set of observable implications about both the timing and results of elections than traditional theories of either. The theory developed in Chapter 2 is built on assumptions of voters whose political priorities and support depend on the state of the economy and politicians who act strategically based on their understandings of the behavioral patterns of voters with respect to the economy. The tendency of people to focus their concern on what is going wrong rather than what is going right means that the salience of the economy will vary with economic performance, with the economy being more important when it is performing poorly than when it is performing well (Arceneaux, 2003; Bloom and Price, 1975; Hood, 2002; Martin, 2008; Soroka, 2006). If economic outcomes have a stronger (and negative) impact on incumbent support during a downturn, then the timing

of an election within a business cycle may well explain much of the variation in economic voting within a country. It does not, however, provide any explanation for the differences in average levels of economic voting cross-nationally.

Differences in political institutions are still likely to be the explanation for these differences, but not through the mechanism posited by the clarity of responsibility literature. Instead of voters recognizing the constraints politicians face and fairly holding them more accountable when they have more power to affect policy outcomes, politicians act to enhance their own power to the extent those constraints allow them. Specifically, politicians with the power to dissolve parliament will do so when economic conditions favor them. Unlike earlier examinations of opportunistic election timing (e.g. Ito, 1990; Kayser, 2006; Smith, 1996, 2004), this dissertation examines the incentives and capacities of politicians both in and out of government to determine the timing of elections. Incumbent prime ministers, in their pursuit of office holding, want to call early elections when the economy is performing well, and will do so more often when political institutions allow them to do so with ease. While these elections are driven by the economy, the economy's strong performance will make it a relatively weaker predictor of incumbent support than in elections in which the economy is performing poorly. Politicians' concern for voter support is only incidental to their primary goal of retaining government power. I posit that the weakened impact of the economy on election returns when the economy is performing well is made up for by the increased likelihood of retaining their post as premier.

The incumbent prime minister is not the only actor who can choose when elections occur. By considering how arrangements of political power that shift over time within countries determine the possibility (and, as seen in Chapter 3, common occurrence) of opposition parties timing elections we come to expect elections to be held at particularly inopportune moments for the incumbent prime minister under particular sets of circumstances. A struggling economy is likely to mobilize opposition to

the incumbent prime minister, providing a strong incentive to non-prime ministerial parties to bring about elections and improve their own chances of governing. When opposition parties have the capacity to force early elections on a prime minister, they are likely to do so when the economy is performing poorly. Thus, when institutional arrangements produce both the opportunity to force early elections, they are more likely to do so when the economy is performing poorly. Moreover, the economy's effect on incumbent support is likely to be larger in opposition-timed elections than in other types of elections, precisely because it is relatively more salient. Thus, the theory developed in Chapter 2 expects political institutions to play an important role in the magnitude of the economic vote, it does so through a different mechanism than existing theories and produces a different set of observable implications.

Chapter 3 describes the data on the how elections arise in advanced industrialized democracies. Four distinct types of elections are possible: those occurring at the end of the parliament's constitutionally mandated term; those held before the end of the parliament's term brought about by the prime minister; elections held before the parliamentary term's end forced by the opposition; and those held early for other, non-office-seeking reasons. While the specifics surrounding the individual elections in each category vary, I show that there are institutional commonalities that correlate with occurrence of each type of election.

The theory that institutions affect the capacity to act on economic incentives of politicians in and out of government to time elections is tested in Chapter 4. Using strategic probit models, I find that the benchmarked unemployment rate has a statistically significant effect on the decisions of prime ministers and oppositions to time elections. When prime ministers can unilaterally call elections they use that power, but are less likely call an early election as unemployment rises. Opposition parties are more likely to force early elections when they control a presidency, and this tendency increases as the unemployment rate climbs.

Building from these findings, Chapter 5 tests the implications strategic timing of elections for the election's ultimate outcome. As the type of election is expected to mediate the effect of the economy on incumbent prime ministerial retention in particular, a simple mediation model is estimated. While election type has minimal mediating effects on vote or seat share, it has a strong mediating effect on the impact of the economy on retention. The economy's impact on whether the prime minister keeps her job is at least as strongly determined by how the election came about as it is by the state of the economy itself.

Chapter 6 concludes that bringing politicians back into explanations of economic voting is essential to understanding aggregated mass behavior. We know that voters follow elite cues; the ability of elites to not only help set the priorities of what voters base their choices at the ballot box on but to determine when they get to express their evaluations of incumbent performance on those priorities calls into question scholar's equivalence of performance voting with democratic accountability. The final chapter of the dissertation explores these implications and proposes directions for future research to account for other means by which politicians' strategic behavior may undermine accountability.

CHAPTER II

A Theory of Economic Voting with Strategically Timed Elections

The previous chapter showed that the proposed mechanisms of macro-level economic voting are based on unrealistic assumptions about the differential impact of the economy on voters, rather than politicians, due to institutional constraints and inconclusive empirical evidence upholding those assumptions. I do not dispute the importance of political institutions on electoral outcomes or economic voting, but this chapter makes the case for changing our view of *how* and *why* institutions matter for economic voting. I argue that the effects of institutions on the economic vote operate through the strategic responses of politicians to the incentives of economic performance and the actions available to them in their institutional environment as they pursue power. It is institutions' empowering or constraining effects on the early dissolution of parliaments by partisans that determine the strength of the relationship between economic performance and election outcomes. Institutions that concentrate policymaking power are likely to coexist with other institutions that provide prime ministers significant leeway with which to time elections strategically. More dispersed policymaking institutions are more likely to coincide with institutions that empower multiple partisan actors to strategically dissolve parliament, leading to greater variance in the motivations of those calling elections than in premier-timing countries.

The economic voting literature assumes that the economy provides the same basic information (e.g., the government's level of competence) about incumbent performance in all elections, which voters then use to decide how to vote. These studies focus on voters, while paying little attention to the behavior of politicians. Yet, if the economy matters as much as both political scientists and politicians believe for electoral outcomes, then politicians have an incentive to manipulate both economic outcomes[1] and when elections occur in an economic cycle. If voters are more likely to retain incumbents when the economy is performing well, then the government has an incentive to call elections during economic upswings (e.g., Balke, 1990; Duch and Stevenson, 2008; Powell, 2000). Further, since voters tend to focus their reward on the most prominent party in government, this is particularly the case for the party of the prime minister[2] Conversely, members of the opposition are likely to attempt to force elections during economic slumps, as their prospects to rule are inversely related to those of the incumbent.

This chapter presents a theory of economic voting that accounts for the possibility that politicians attempt to maximize their likelihood of either attaining or prolonging their time in office by calling elections at opportune moments. This incentive exists in all democratic systems, but the capacity of politicians to call early elections is constrained by political institutions. Only within parliamentary and semi-presidential political systems can (some) politicians choose when they face the voters. Within this set of countries the capacities of the prime minister's party and the opposition to bring about early elections varies considerably. Parties' abilities to precipitate elec-

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[1]This is the basis of the political business and political budget cycle literatures. This work argues that as elections approach, politicians will attempt to create short-term booms to improve their prospects of reelections. Through the manipulations of fiscal and/or monetary policy, politicians attempt to expand the economy before inflation catches up, leading voters to reward them either for the expansion or for their perceived competence in engaging in such expansion with few inflationary consequences. See e.g. Alesina, Cohen and Roubini (1993); Franzese (2002); Shi and Svensson (2006) for reviews of this work.

[2]Research suggests that the party of the head of government in coalition governments and of the president in cohabitation situations is generally the target of economic voting (e.g. Duch and Stevenson, 2008; Powell, 2000).

tions in time with economic performance differ based upon both the largely constant national features of formal institutions and strong norms empowering particular actors in parliamentary dissolution, and the dynamic feature of parliamentary partisan composition. While all parties have incentives to call elections at opportune moments, their capacities to act on their preferences explain when the economy will (not) be a strong predictor of an election's outcome. If the strength of the relationship between the economy and incumbent support at the polls is contingent on the strategic behavior of politicians, then evidence of economic voting may have little relationship to normative conceptions of democratic accountability.

In addressing the question of how institutions that structure election timing affect election outcomes, I provide evidence that these institutions are both theoretically and empirically linked with measures of clarity of responsibility (Powell and Whitten, 1993). However, while correlated with clarity of responsibility, the theory presented here produces a different set of observable implications of how institutional variation affects economic voting than exists in the literature. The following section explains how the failure to model the relationship between clarity of responsibility and dissolution powers produces biased estimates of the economy's effects on election outcomes. Section 2.2 proposes a mechanism by which election type (that is, whether an election occurs at the end of the maximal parliamentary term or is held as a result of the prime minister or the opposition dissolving parliament prematurely) is associated with differences in the salience of the economy as a whole and with the salience of particular indicators of performance to voters, thereby affecting the magnitude of the economic vote. Forward-looking politicians' anticipation of voter response to the economy – not the rational response of voters to the institutional constraints politicians faced during the previous term – is what drives differences in the economic vote. I then briefly introduce new data (described in greater depth in Chapter 3) in Section 2.3 that establishes who precipitated an election and show how the means by which elections

come about is related to both measures of clarity of responsibility and constitutional rules empowering either the prime minister or the parliamentary opposition to bring about early elections. Section 2.4 concludes.

2.1 Economic performance, the economic vote, and omitted variable bias

As discussed in Chapter I, a large strain of the economic voting literature has focused on how institutions clarify or obfuscate responsibility for policy outcomes. When institutions produce a single partisan actor who can implement its policies unilaterally, that actor will be held responsible by voters for the consequences, particularly the country's economic performance during their rule. Beginning with Powell and Whitten (1993), clarity of responsibility was defined by having generally high party voting cohesion, government control of all legislative committee chairmanships, no opposition control of an upper house, and single party majority government. Powell (2000) later argues for a simple dichotomy between majoritarian and proportional electoral systems to distinguish high and low clarity countries. Other scholars have added additional conditions to achieving clarity such as a unitary state (Anderson, 2006), the availability of alternative governments (Bengtsson, 2004), and presidentialism (Hellwig and Samuels, 2008) to name a few.

Regardless of how the institutional constraints in the clarity of responsibility theory are operationalized, the goal is to measure the control that a government–and specifically the prime ministers' party–has over the policies proposed and adopted by the parliament. There is an underlying assumption that voters recognize this level of control. Powell and Whitten (1993: 398, emphasis mine) argue that "[t]he greater the *perceived* unified control of policymaking by the incumbent government, the more likely is the citizen to assign responsibility for economic and political outcomes to the

incumbents," while Duch and Stevenson (2008: 248) more recently argue that their, "explanation for contextual variation in economic voting assumes that voters know how much of the variation in random shocks to the economy is due to the competence of the government rather than the influences of nonelectorally dependent exogenous factors." While politicians may help inform voters about how political responsibility is divided (see Grafström and Salmond, 2010; Powell and Whitten, 1993), the onus remains on voters to comprehend the institutional and political constraints incumbents faced and judge their policy success or failure accordingly. This burden is likely to be quite onerous for the average citizen. Surveys consistently show that most voters know little about either the long-standing political institutions in their country (e.g. Galston, 2001; McAllister, 1998) or the changing configurations of power within those institutions (e.g. Duch and Stevenson, 2013).

However, many of the same features of a nation's politics that grant a prime minister significant power over the shape of policy are likely to also provide her with substantial leeway over the timing of elections. Institutions that disperse policymaking power within parliaments are likely to go along with other means of power-sharing that constrain the prime minister's ability and/or reduce her incentive to call elections when economic circumstances are favorable for her party alone. For example, countries that distribute committee chairmanships proportionally across parties are those in which no single party is likely to gain a majority of seats, that tend to engage in corporatist or consociational politics, and often formally constrain the premier's legal right to unilaterally dissolve parliament (Strøm, 1990). Sweden, for instance, is a country in which no single party tends to win an outright majority of votes, committee chairmanships are distributed proportionally across all parliamentary parties, and it allows the prime minister to dissolve parliament early. However, an early election in Sweden is considered an "extra" election that simply elects a new parliament to fill the remainder of the current term; it does not reset the clock, reducing the

incentive to return to the polls. The premier's ability to extend her officeholding is circumscribed in Sweden alongside rules that limit her capacity to uncompromisingly implement her policy agenda. Further, governments that form in these countries rely on the support of multiple parties, making the dissolution calculus more complex, as an early election may result in the formation of a less preferred government in the subsequent parliament. More generally, when power is dispersed among a number of parties, numerous avenues for non-prime ministerial parties to influence policy tend to develop that restrict the autonomy of the head of government (Strøm, 1990). In these systems, the prime minister's autonomy to call elections is often restricted by other rules such as a requirement for the full cabinet to agree to a dissolution, the approval of a partisan head of state, or for the parliament to vote in favor of new elections.

The incentives to call early elections are likewise smaller for prime ministers in these systems, as the benefits of office are reduced by the need to gain the support of other parties for proposed policies in both present and expected future governments. The strengthening of one's own hand in parliamentary negotiations may come at the expense of partners with whom one may want to work with, resulting in worse policy outcomes (Tsebelis, 2002). Likewise, countries in which the prime minister's party is able to implement its policy agenda in a relatively unobstructed manner also tend to allot the prime minister the right to call elections unilaterally. Kayser's (2006) categorization of countries with "premier timing" of elections–countries where the prime minister has significant power to call elections at will–is composed largely of countries that tend to have high levels of institutional clarity in the three tiered scale as defined in Whitten and Palmer (1999). Further, one would expect that, where prime ministers can readily implement their policy agendas, that agenda would likely include the ability to strategically time elections. While the opposition would resent this government power while outside the cabinet, they are unlikely to change it once

they are the ones controlling the prime ministership.

This confluence of powers leads to an alternative avenue through which political institutions produce differing patterns of economic voting over time and across countries. The opportunistic election timing literature posits that prime ministers "surf" the economy, calling elections when the economy is near a peak, in an effort to "ride" the economic vote to reelection. These elections are considered opportunistic because voters are assumed respond merely to the state of the economy, allowing politicians to strategically time elections to align with this behavioral pattern of voters. If prime ministers call elections when they expect to retain office, and if strong economic performance improves their chances of retaining office, then their decisions to call elections will be a function of the economy's performance (Balke, 1990; Cargill and Hutchinson, 1991; Chowdhury, 1993; Ito, 1990; Kayser, 2005, 2006; Palmer and Whitten, 2000; Smith, 2003; Warwick, 1994). However, their ability to do so will depend on the constraints they face both in parliament and the cabinet.

Kayser (2005) shows that economic booms are associated with early elections in a cross-section of countries where the prime minister has sufficient capacity to determine election timing more or less unilaterally. This capacity, however, is quite varied across parliamentary countries. Further, while showing that economic expansions are associated with early elections in countries that tend to have what Kayser terms "premier timing systems," he does not go so far as to show that these elections are more likely to result in incumbent victories, nor the degree to which the economy produces this effect on incumbent success. Schleiter and Morgan-Jones (2009) document how the rules governing the ease with which early elections can be called by particular political actors vary significantly, and that these different institutions have a significant impact on the ways that elections occur. In many parliamentary countries the prime minister is constitutionally constrained in the calling of elections or lacks this power altogether, with parliamentary dissolution lying with the head of state or the

parliament itself.

Prime ministers are not the only actors with an interest in the timing of elections though: they are simply the most studied. Certainly prime ministers will generally be best placed both in terms of formal institutions and political power (since the prime minister's party often controls a plurality of parliamentary seats). However, in some contexts where prime ministers are constrained, other parties may be empowered to provoke early elections. These opposition-timed elections are confounded with premier-timed elections in the endogenous election timing literature. To date, the endogenous elections literature has considered the factors that precipitate early elections in countries such as Japan (Ito, 1990), India (Chowdhury, 1993), and the UK (Smith, 2004) where the prime minister has significant power to unilaterally call elections at any point. Other configurations of power in parliamentary systems, however, can both limit the prime minister's leeway to determine election timing and increase other parties' abilities to force elections when their prospects of entering government are high. For instance, a partisan president with the power to dissolve parliament unilaterally would provide a point of access to election timing that non-prime ministerial parties could use to promote their own partisan interests during cohabitation. In addition, minority governments face the prospect of an opposition that unites to dissolve parliament and bring one or more opposition parties into power. Once again, an expectation of economic voting is likely to inform the calculations of staging an opposition-timed election.

Many of the factors listed above that empower prime ministers or opposition parties have been used as measures of institutional clarity in the economic voting literature (e.g., minority government, coalition, presidency). Clarity of responsibility, therefore, may be acting as a proxy for other institutions that affect the strategic behavior of politicians in deciding when to dissolve parliament. If the decision to hold early parliamentary elections is a function of economic performance as assumed

in the endogenous election timing literature, then the use of clarity of responsibility–which is theoretically correlated with variables that affect the capacity and incentive for different parties to call early elections–could be producing omitted variable bias in estimates of the magnitude of the economic vote. When a prime minister has the greatest control over when elections are called they will likely call them when the economy is performing well; when a prime minister lacks this tool elections may be held in a mix of good and bad economies. Furthermore, when the prime minister's control is reduced other actors may be empowered. Leaders of multiparty and minority governments are more susceptible to losing parliament's confidence than their single party and majority counterparts, and are therefore more likely to face early elections held at inopportune moments. Other partisan actors are likely to have interests and incentives that run counter to those of the prime minister, preferring elections be held during downtimes as their own governing prospects rise when those of the prime minister fall.[3]

If control over election timing and control over other policy levers are correlated, then this implies that politicians, not simply voters, ought to be a central focus of the economic voting literature. Politicians are constrained and empowered by different sets of institutions, norms, and parliamentary strengths in their pursuit of office and policy. Those who are least constrained in achieving their policy goals are likely to be similarly unconstrained in pursuing office through the strategic timing of elections. Existing parliamentary rules reflect the relative power of different groups in society to advance their interests over time. Where multiple groups compete for power and none is likely to predominate, power-sharing institutions develop to help address conflict (e.g., Birchfield and Crepaz, 1998; Hallerberg, 2002). When parties other than that

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[3]Throughout the dissertation, I use the terms "opposition parties" and "other partisan actors" interchangeably. The theory presented here makes the case that all parties aside from the prime minister's party, including junior coalition partners, have electoral incentives that may diverge significantly from those of the prime minister and ought to be thought of as potential members of an opposition.

the prime minister are involved in policymaking, they are likely to also create rules that protect themselves from the electoral opportunism of a prime minister by creating rules or norms that require broader agreement before parliament can be dissolved. The coevolution of rules governing how legislation is drafted and overseen by non-prime ministerial parties with those establishing the purview of the prime minister herself are likely to lead to a positive correlation between the ease with which the prime minister can implement her legislative agenda and her capacity to unilaterally call elections.

To my knowledge Samuels and Hellwig (2010) are the only scholars who have started down this route of considering how the type of election might affect the degree of democratic accountability and economic voting in elections. Samuels and Hellwig divide elections into three types: those held at the end of the mandated electoral period for the parliament, those held early by the prime minister, and those that are held early for some other reason. They find that the economic vote's strength varies across election types and levels of clarity of responsibility within those different election types. Both end-of-term and early elections that are not called by the prime minister have strong economic votes, while those early elections called by the prime minister experience little economic voting. However, their empirical model does not address the endogeneity of expected election outcomes and economic performance. Instead they present this evidence through the lens of clarity of responsibility driving election outcomes independent of its relationship to the capacity to time elections.

This important work provides a starting point for the examination of whether and how election timing affects election outcomes and the relationship of both to economic performance. The economic vote does seem to differ based on how elections come about. Both Smith (2003, 2004) and Samuels and Hellwig (2010) indicate that economic voting may be weaker in elections called by prime ministers than in elections arrived at by other paths. Prime ministers are expected to call early elections

when the economy is performing well, providing at least two explanations for why the economy would have a lesser impact on election outcomes. These elections could serve as a signal of expected near-term economic deterioration by the government (Smith, 2003, 2004), or it could be that voters' tendencies to focus attention on problems rather than successes makes the economy less salient during premier-timed elections (Kahneman and Tverski, 1979). Because Smith and Samuels and Hellwig largely focus on how the economy and institutions matter on the prime minister's path, the other paths to election are left largely unexplored. We now turn to the questions of precisely how the economy affects when elections are called, by whom, and what their ultimate effect is on incumbent reelection.

2.2   Elections as context in economic voting

Despite the literature on opportunistic election timing, scholars of economic voting have not fully considered the implications of non-fixed election dates on how the economic vote functions. One reason this contingency has not been fully considered in the economic voting literature is that it is not obvious why reaching an election via one path rather than another would lead to a different relationship between the economy and that election's outcome. Much of the opportunistic election timing examines when elections are called, but does not investigate how they end. Smith (2004) argues early elections called by the prime minister during economic peaks provide information to voters about future economic downturns, moderating the economy's effects in early elections in the UK. Samuels and Hellwig (2010) find that economic performance has little effect on vote or seat share, regardless of clarity of responsibility, when incumbents opportunistically call elections, and has a negative effect on their retention when clarity of responsibility is highest.

This small body of work indicates that how elections occur matters for the effects of the economy on those elections' outcomes, but still do not consider the full set of

potential pathways to elections. When there are multiple routes to elections rather than a single path, the road chosen can provide researchers with clues about the varying importance of the economy in, and the expectations of politicians for, electoral outcomes. Instead of examining how voters view the economy through the lens of political institutions, I assume that politicians are weighing the expected response of voters to current economic stimuli in light of the constraints they face to opportunistically calling elections. In most parliamentary countries there are three potential ways to arrive at an election: elections can be held because the constitutionally mandated expiry of the parliamentis reached, the prime minister has called for new elections, or the premature dissolution of parliament is brought about by the opposition. I take as a starting point that each of these types of elections is initiated under different general economic circumstances, potentially different institutional configurations, and with different expectations about the incumbent prime minister's fate.

To begin, assume that all parties are interested in maximizing their likelihood of entering government. To the extent that winning more votes improves the chances of entering government, parties are vote share maximizers (or vote share loss minimizers). While additional benefits to increased vote share likely exist (e.g., the claim of a popular mandate), the ability to enter government and implement preferred policies is assumed to be the primary goal of political parties, making vote share only incidental to this more fundamental goal. Further, assume that politicians believe that a proportion of voters are likely to reward incumbents when the economy is performing well and to punish them when the economy is struggling. While voters may rely more on the economy in their evaluations of incumbents during downturns than during upswings, the economy still provides a powerful heuristic for voters at any election and is an important driver of *changes* in support at both the individual and aggregate levels (Bloom and Price, 1975; Kiewiet and Kinder, 1979). Thus the prime minister and her party want elections to occur during economic booms, while

opponents would prefer elections be held during downturns in order to capture some defectors. Due to their desire to retain preeminence in government, premiers will attempt to not only time elections to coincide with economic upswings, but also to wait as long as possible within their current term before dissolving parliament in order to maximize their hold on power (Balke, 1990; Smith, 2004). This desire to hold government power, however, ensures that parties outside government are less concerned about when in a parliamentary term elections occur, because an early election held at any time that improves their chances of being in power is preferred to their current marginalized status. Thus, opposition parties prefer elections be held during an economic downturn, regardless of when during the term they occur. Junior coalition partners hold an intermediate position: while they would like to maintain their position in government, they likely have to support more policies that they dislike than the senior partner (potentially harming their future electoral prospects). If they are linked in voters minds to an unpopular government, then they have little to gain by remaining in the coalition and so may improve their chances of staying in power by defecting from their coalition in order to join a new post-election government, even if this is costly in the short-term.

In order for early elections to occur a government must end and no other viable government must be able to form. Governments end in part due to perturbations of the environment in which parties bargain for policies, cabinet positions, and other benefits of office (Browne, Frendreis and Gleiber, 1986; Diermeier and Stevenson, 2000; King et al., 1990; Lupia and Strøm, 1995; Warwick, 1992). Though the institutions and partisan compositions in parliament are unlikely to change much during a term, exogenous shocks to the larger political environment can alter incentives such that parties' preferences realign with respect to the value of the current government and the current parliament (Lupia and Strøm, 1995). There are many possible shocks, such as ministerial scandals (Dewan and Myatt, 2007) or policy failures (Huber and

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McCarty, 2001), but shocks to the economy are the focus of this dissertation. These shocks can be either positive or negative, are both relatively common, and have broad implications for voters. Fluctuations in the business cycle provide economic shocks that can alter voters' expectations about their futures, increasing or decreasing perceived risk and associated anxiety, and providing a potential incentive to find someone to blame for bad outcomes (Haller and Norpoth, 1997; Kahneman and Tverski, 1979; Nannestad and Paldam, 1997). These shocks can also alter the set of feasible policies, as tax receipts alter the need for governments to tighten belts or allow them to engage in largesse, leading governments to change the policies they implement. To the extent that other non-economic shocks are motivating election timing and results, the estimated effects of the economy on elections ought to limit out ability to detect the expected effects, making any statistically significant results in favor of the theory presented here more compelling. When economic performance exceeds or falls below expectations, this alters incentives for all actors to bring about early elections. It is the confluence of these incentives with the institutional capacities to act that produces the patterns of election types observed in Chapters III and IV. I argue that it is through the timing of elections by partisan actors that the economic vote has its most substantial effect.

While these preferences over the timing of elections, based on the business cycle, for those in and out of power, are relatively constant, the capacity of parties to force elections at their preferred moments differ both across countries and over time. Election timing is therefore a function of both (a) the incentive for an actor to call an early election and (b) their capacity to do so. As discussed in Section 2.1, the rules governing how parliaments end can vary significantly across countries. Constitutions determine who has the legal right to dissolve parliament, while variance in traditions and norms may well lead to divergent costs for early dissolution to various actors. Countries such as Norway, Switzerland, and the US do not have a procedure for the

early dissolution of their legislatures, while, until 2011, the British prime minister could easily dissolve parliament by her sole accord.[4] Other countries' laws and customs dictate that still other actors be involved in the decision to dissolve parliament, enhancing or inhibiting the capacities of partisan actors to further their electoral goals through election timing.

There are two general manners in which parliaments are dissolved early: either by the executive or through the executive's loss of parliamentary confidence. The executive–be it in the form of the prime minister, the cabinet, or a directly elected president–has the legal capacity to dissolve parliament and bring about early elections in most parliamentary countries. When a single actor has the legal right to dissolve parliament unilaterally, then we ought to see that actor bringing about early dissolutions more regularly when the economy provides favorable electoral circumstances. [5]

Hypothesis 1. Countries in which a single partisan actor can unilaterally dissolve parliament will have a higher likelihood of early elections than countries in which no single actor has such unilateral power.

Unlike elections called by a single partisan actor, those that occur due to the government's loss of parliamentary confidence require the assent of multiple actors with distinct, and often competing, interests. When multiple actors must agree to an

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[4]The Fixed-term Parliaments Act of 2011 decreed a fixed election calendar every five years for the UK's national parliament as part of the Conservative-Liberal coalition agreement. Under the Act, parliament is dissolved 17 (25 following the Electoral Registration and Administration Act 2013) days prior to the end of the parliament's five-year term unless there is a vote of no confidence in the government or a two-thirds majority of the House of Commons votes in favor of an early general election. However, due to the flexible nature of the British constitution, any future single-party majority governments could retract this law so as to have the option of ending the parliamentary term early.

[5]For the purposes of this study a single actor is any unified partisan actor. That is, any single political party or individual person representing that political party. It is assumed that the preferences of individual party leaders reflect the interests of their larger organizations. While, for instance, the preferences of a president may diverge somewhat from his colleagues in parliament, their preferences are likely to be more similar to one another than they are to other parties.

early dissolution of parliament, timing becomes more difficult. If multiple parties are required to agree to dissolution, then they must jointly determine that the benefits of an election today exceed the net benefits of continuing the current parliament (Lupia and Strøm, 1995). Multiple actors may need to assent to dissolve when the constitution requires that the full cabinet agree to early elections, a majority of the parliament itself must vote on its dissolution, or in cases of the cabinet's loss of parliamentary confidence. These instances of coordinated dissolution do not require that all parties expect their vote share to improve, but that their chances to hold office, and the value of that office, are better under an election today than one further down the line. When continuing the current parliament is likely to harm future electoral and governmental prospects more than taking a beating in the polls today, parties may be willing to align with others against their own short-term interests. This may be why, for instance, junior coalition partners are sometimes willing to leave a government and join with opposition parties to bring down a prime minister and force an early election. External forces, such as economic downturns, may produce the incentives necessary to bring down a sitting prime minister. While the argument that economic hardship is likely to strain coalition governments is not new (e.g., Bernhard and Leblang, 2008; Browne, Frendreis and Gleiber, 1986; Diermeier and Stevenson, 2000; Warwick, 1992), the logic that these downturns lead junior coalition members to seek an early return to the polls in order to maximize their time in office is.

When these external forces are likely to persist regardless of who sits in the cabinet, there may be little incentive for those in the opposition to rule over the attenuated remainder of the parliament as the new governing parties become associated with these problems in the minds of voters, harming the incumbent's long-term capacity to rule. Because economic indicators such as GDP growth, inflation, and unemployment are all relatively sticky, negative economic shocks are likely to be persistent. In these situations, parties may prefer to go to the polls in order to secure a full parliamentary

term, during which time the outside forces may either subside on their own or the new government's policies will have sufficient time to run their course and economic improvements be observed by voters. Whether then by design or accident, persistent negative shocks are likely to produce opposition-timed early elections, an outcome unexplored in the literature.

The assumptions above lead us to a set of expectations for both the conditions under which we ought to see different types of elections held and their results. First, consider elections held before the end of the parliament's term at the request of the prime minister or a co-partisan president (premier-timed elections). Because early elections involve a tradeoff between the value of continuing to rule with the possibility of another full term if the gamble pays off and losing the remainder of the current term in office, prime ministers will call elections at their last best opportunity (Balke, 1990; Heckelman and Berument, 1998; Ito, 1990; Lupia and Strøm, 1995; Warwick, 1994). While they want to hold onto power as long as possible, if they cannot reasonably expect another opportunity as good as the current moment to arise and the value of the current parliament is less than their expected value of the next parliament that results from an election today, then they will call a snap election. If, as theories of economic voting suggest, voters will reward governments when the economy is performing well, the prime minister has an incentive to call an early election when the economy is performing well, particularly as the end of the parliament's term nears. We should therefore expect premier-timed elections to be called toward the end of a parliamentary term, during an economic upswing, when prime ministers (or a presidential co-partisan) has the legal power to dissolve parliament unilaterally.

Hypothesis 2. When prime ministers (or co-partisan presidents) have the sole power to dissolve parliament, they will do so when the economy is performing well.

Hypothesis 3. Early elections called by the prime minister (or a co-partisan president)

are more likely to return the prime minister's party to government than other types of elections.

Early elections that are brought about due to the actions of parties other than that of the prime minister, what I define as opposition-timed elections, are likely to occur under very different circumstances. Opposition parties' control of a presidency, a majority of seats in parliament, or their ability to peel off members of the current government provide them with the capacity to call early elections.[6] Because continuing the current parliamentary term has little value for those outside the government, and potentially less for junior members of the government than for the prime minister's party, opposition-timed elections may occur at any point in the term when there is economic incentive to bring them about. Voters' tendency to consider the economy retrospectively and with significant lag, however, means that opposition parties' incentives may lead them to wait until the economy is in the doldrums for quite some time before foisting elections on a faltering government to ensure that voters are able to observe the downturn. By waiting until the economy has been in a downturn for several fiscal quarters, opposition parties have a larger pool of disaffected voters to capture and have less of the negative shock remaining in their subsequent term, increasing the length of their rule (Fiorina, Abrams and Pope, 2003; Gelman and King, 1993). This route to early elections, however, has not been explored significantly in the literature on election timing, nor its implications for the outcomes of those elections tested. Opposition-timed elections are therefore more likely to be held during an economic downturn when opposition parties have the institutional capacity to dissolve parliament either unilaterally (e.g., during cohabitation) or through a

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[6]Presidency for the purposes of this dissertation is defined as a directly-elected head of state. In semi-presidential systems, a dual executive composed of the independently elected president and the prime minister, elected by the parliament, share power. The president's term cannot end prematurely, but the parliament's, and thereby the prime minister's, can. Because the president's term is fixed, the parliament can be dissolved by the president to ensure that the government is able to function when there is disagreement between the two parts of the executive.

parliamentary vote of no-confidence.

Hypothesis 4. When actors other than the prime minister bring about the early dissolution of parliament, they do so when the economy is performing poorly.

Hypothesis 5. Early elections called by the opposition are less likely to return the incumbent prime minister's party to government than other types of elections.

Finally, consider elections held at the end of the parliamentary term. At first glance, we would expect these elections to be the most like fixed-term elections generally assumed in the economic voting literature–they are held at the very end of a parliamentary term just like all elections in the US or Norway. However, unlike fixed-term elections, the occurrence of an end-of-term election is the result of earlier strategic choices by various parliamentary actors. Since politicians in fixed-term systems know precisely when they will next face the electorate, they are unable to capitalize off of windfalls throughout their terms to the extent that politicians in parliamentary systems are able. End-of-term elections that occur in systems where there is the possibility of earlier ones are conceptually different from those held at the end of a fixed-term because all actors who could precipitate an early election chose not to do so. These elections held at the end of a parliament's mandate could be arrived at along multiple avenues. An end-of-term election could indicate that there were no sufficiently good opportunities for an election earlier in the term, that earlier opportunities were missed, or that no actor had the capacity to bring about an election. For instance, the protracted economic downturn engulfing much of Europe since 2008 have both left incumbent electoral prospects in the gutter, and simultaneously made the short-run value of ruling unclear for opposition parties. Incumbent governments have little reason to enter the opposition early with an anticipated loss of power; the opposition has little incentive to start their term when there is little prospect of

noticeable turnaround in the medium-run. If opposition parties wait, they may still gain power after a short while, but be able to claim credit for an eventual economic turnaround under their watch, extending their hold on power even longer than if they took the cabinet right away. In this circumstance both benefit by allowing the parliament to run its full course.

The other side of that coin would be a parliament in power during a strong economic upturn. It could be that the economy's upswing had propelled the incumbent's support high enough that the opposition could not expect significant gains (and perhaps some losses) from an early election. The prime minister, likewise secure in her knowledge that she is likely to retain support in any election during the remainder of the term, has little incentive to risk cutting her tenure in office short by returning early to the polls. Over the near-term, particularly for a premier whose parliament has lasted into the final months of its mandate, little is likely to change so as to alter those electoral expectations, reducing any benefit of going early for either side.

Elections held at the end of the parliament's term could also indicate that the government simply missed a good opportunity for an election earlier in the term. Expected booms may fail to materialize later in a term, or politicians may misjudge current strengths, leading them to regret not going to the voters earlier. Because there is generally little to be gained from returning to the polls immediately after the last election, economic shocks need to be much larger in the beginning of a term to precipitate an election than are necessary later in the term (Balke, 1990). This question of timing within a parliamentary term is particularly important for prime ministers in their decision to head to the polls early or not. As discussed above, opposition parties have little to lose from forcing an election at any point in the term if they can reasonably expect to enter government as a result. Prime ministers, however, give up the remainder of their term.[7] Due to the greater variety

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[7]E.g., economic performance may unexpectedly decline and fail to recover during the remainder of the term. In this case, the prime minister may have preferred to call elections before the downturn

of circumstances that can produce end-of-term elections, the expected covariances between economic performance and election outcomes ought to be smaller than for either type of early election.

Furthermore, constitutional rules and arrangements of political power within parliaments and cabinets may simply make capitalizing on a strong economy too difficult for any (set of) political actor(s). When forcing early elections is particularly difficult or costly, elections are likely to occur at the end of the term. We should then expect some end-of-term elections to fall in good economic times and others in bad. Thus, an end-of-term election is unlikely to be correlated with economic performance, but the fact that the election falls at that moment is due to earlier expectations of electoral outcomes and decisions not to dissolve parliament. Because of the mixed state of the economy and our inability to discern between the multiple reasons for observing an end-of-term election, these elections should be no more likely to return the incumbent to power than to install a new prime minister. The economy's effect should be positive, with stronger economic performance aiding an incumbent, while an anemic economy should result in a loss of electoral and parliamentary support for the incumbent.

Hypothesis 6. There is no relationship between economic performance and the occurrence of end-of-term elections.

Hypothesis 7. End-of-term elections are no more likely to return the incumbent than to install a new prime minister.

Table 2.1 lists the seven major hypotheses drawn from the theory described here in terms of their and independent variables, and the expected direction of the relationship. These hypotheses are related to both average differences in the state of the

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had they known what was coming. UK's Labour under Gordon Brown (2007-2010) would likely fall in this category.

Table 2.1: Hypotheses for the relationship between institutions, economic performance, types of elections, and election outcomes

	Dependent variable	Independent variable	Direction of effect
H1:	Occurrence of early elections	Number of actors with power to dissolve	Negative
H2:	Premier-timed elections	Economic performance	Positive
H3:	Prime ministerial retention	Premier-timed elections	Positive
H4:	Opposition-timed elections	Economic performance	Negative
H5:	Prime ministerial retention	Opposition-timed elections	Negative
H6:	End-of-term elections	Economic performance	Null
H7:	Prime ministerial retention	End-of-term elections	Null

economy in the run-up to each type of election and differences in the implications of the economy for incumbent retention. The theory of politician-centered economic voting laid out above moves the focus away from the measure of vote share to the question of who governs. I argue that the economy's main effects on who rules is through its effects on who calls elections and when: once the type of election is accounted for, the economy has little additional direct effect on the incumbent's likelihood of retaining the office of the prime minister in early elections. Because strategic politicians can generally assume that there will be some positive relationship between the state of the economy and their electoral prospects, their ability to time elections to coincide with these upturns will be the main avenue through which the economy affects election outcomes in early elections. This is described in Hypothesis 8.

Hypothesis 8. The economy's effect on incumbent retention in early elections is through its effects on the timing of elections.

By considering the specific institutions that empower partisans to choose when they face voters and their economic incentives to do so, we can better understand how the economy affects democratic accountability. A precursor to doing this is establishing a relationship between existing measures of institutional constraints and

the types of elections held under those institutions, to which I now turn.

2.3   Descriptive statistics of clarity of responsibility and election types

In Section 2.1 I argued that measures such as clarity of responsibility are theoretically related to the types of institutions that make it easier or more difficult for strategic politicians to time elections based on economic performance. In this section, I show that this theoretical relationship is borne out in the data.

Table 2.2 divides countries by their average level of clarity of responsibility as defined by Whitten and Palmer (1999) and lists the number of elections held in each country categorized into four election types. The three major types of elections described in Section 2.2 account for the bulk of observations: end-of-term elections, premier-timed elections, and opposition-timed elections. As described in much greater detail in Chapter 3, end-of-term elections are those elections held within the final three months of a parliament's constitutional interelectoral period (i.e., within three months of the absolute latest date they could be held); while premier- and opposition-timed elections are those held more than 3 months prior to the end of the parliament's maximal term and called by the prime minister or opposition parties, respectively. Finally, I have a group of "other" early elections: elections held early for some constitutional or apparently non-political reason. For example, Sweden's 1970 parliamentary election was held early in order to elect a parliament to the newly unicameral Riksdag. The countries included are advanced industrialized parliamentary democracies where early elections are possible from 1967 through 2010.[8] See Chapter 3 for full details of sources, methodology, and the code assigned to each observation.

Due to the relationship between clarity of responsibility and the institutions that empower some actors to initiate early elections over others, we should expect differ-

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[8]Or second democratic election in the cases of Greece, Portugal, and Spain

Table 2.2: List of countries and observed election types

Country	No. Elections	End-of-term	Premier-timed	Opposition-timed	Early other
		High Clarity			
Australia	15	7	7	1	0
Finland†	11	8	0	2	1
France†	11	6	3	2	0
Greece	11	3	6	0	2
Ireland	11	3	5	3	0
Japan	13	2	8	2	1
Spain	8	3	3	2	0
UK	11	3	7	1	0
Total	**91**	**35 (38%)**	**39 (43%)**	**13 (14%)**	**4 (4%)**
		Middle Clarity			
Austria†	13	7	3	3	0
Belgium	13	5	4	2	2
Canada	12	4	5	3	0
Italy	10	3	3	4	0
Netherlands	13	7	1	5	0
New Zealand	14	12	2	0	0
Portugal†	11	4	3	3	1
Total	**86**	**42 (49%)**	**21 (24%)**	**20 (23%)**	**3 (3%)**
		Low Clarity			
Denmark	15	1	13	1	0
Germany	10	7	2	0	1
Luxembourg	8	8	0	0	0
Sweden	12	11	0	0	1
Total	**45**	**27 (60%)**	**15 (33%)**	**1 (2%)**	**2 (4%)**
Grand Total	**222**	**104 (47%)**	**75 (34%)**	**34 (15%)**	**9 (4%)**

† Semi-presidential countries where the president has (had) either sole prerogative or needed to consent to calling early elections.

ences in the types of elections held in countries at different average levels of clarity of responsibility. Due to the coevolution of institutions, countries with high levels of clarity of responsibility ought generally to have mechanisms that allow a single partisan actor to time elections that coincide with opportune economic circumstances and, thereby, more strategic early elections. In particular, prime ministers are likely to be empowered to dissolve parliaments with relative ease in these countries, leading to more premier-timed elections. High clarity countries with semi-presidential systems may also have more opposition-timed elections in which presidents who are contra-partisans to the prime minister call elections to gain a supportive parliamentary majority. Systems that produce middle levels of clarity may have both moderately constrained premiers and empowered oppositions in parliament, producing both premier- and opposition-timed elections. Finally, countries with very low levels of clarity of responsibility are likely to have institutions that make early dissolutions exceedingly difficult and thereby rare. Because governments and opposition parties are highly constrained in the policymaking process, generally requiring significant coalition building in and out of the cabinet, there is little expectation that there would be easy levers at hand for any actor to bring about early elections, meaning most parliaments reach their full mandates. While there are clear expectations about the relationship between general levels of clarity of responsibility and the distribution of election types, this is not a monotonic relationship. While we expect high clarity countries to have the most premier-timed elections, middle clarity countries to have fewer, and low clarity countries to have the least, we expect opposition-timed elections to peak in middle clarity countries and there to be exceedingly few in either high or low clarity contexts.

Table 2.2 lists the total number of elections in each country as well as how these elections came about. The first bloc shows that in countries with generally high clarity of responsibility, the plurality of elections are premier-timed (43%), in line with our

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expectations about the relationship between clarity of responsibility and the ability of actors to unilaterally dissolve parliaments. Nearly as many elections occur at the end of the parliament's term (38%), while very few result from opposition timing (14%)– only a third the number of premier-timed elections. Only four percent of elections in high clarity of responsibility countries are held early for other, non-strategic reasons. This pattern is in line with expectations above relating the institutions that largely determine clarity of responsibility to the ability of prime ministers to indulge in their desire to call elections at opportune moments, and the relative powerlessness of opposition parties to bring about early elections in these countries.

The second bloc shows the distribution of election types across middle-clarity countries. End-of-term elections are the most common, accounting for approximately 49% of all elections in this group. The proportion of premier-timed elections (24%) is nearly identical to the proportion of opposition-timed elections (23%). Moreover, the lion's share of all opposition-timed elections are held in middle clarity countries where multiple actors may be empowered to call elections, as predicted above. 20 of the 34 opposition timed elections in the sample were held in middle clarity countries. Only three percent of elections in middle-clarity countries were held early for other/non-strategic reasons. Once again, the pattern of elections in countries with middle levels of clarity, in which power is shared between both opposition and premier parties, is in line with the expectations given above.

The final bloc shows the distribution of election types in low-clarity countries. In low-clarity countries sixty percent of all elections are held at the end of the parliament's term. Another thirty percent of elections in countries with generally low clarity of responsibility were initiated by the premier. However, nearly all of the premier-timed elections in the low clarity group were called in Denmark, where the prime minister has the sole prerogative to call elections (Schleiter and Morgan-Jones, 2009), even though the prime minister otherwise faces a relatively fractionalized par-

liament where committee chairmanships are distributed proportionally across parties, and the prime minister's party often rules in minority or coalition governments. Only one election (2%) was initiated by the opposition in this bloc, and two elections (4%) were held early for other reasons. While the trend among low clarity of responsibility countries is for elections to be held at the end of the parliament's term as predicted, the imperfect match between clarity of responsibility and the institutions that structure the choices politicians have available for initiating elections make its use for considering the economic vote through the lens of strategic politicians potentially inappropriate.

Table 2.2 suggests that the differing capacities of governments and oppositions to enhance their electoral prospects by calling elections at opportune moments is related to measures of clarity of responsibility. However, this relationship is not one in which increasing clarity from its lowest to highest levels has a uniform linear relationship with each type of election. While a monotonic relationship is evident in end-of-term elections, the non-linearity in opposition-timed elections, where the peak in elections of this type is in the middle-clarity countries, has implications for the use of clarity of responsibility to moderate estimates of the economic vote would affect our findings. If election timing explains the variance in economic voting at the election level, then this non-linearity in the relationship between election type and clarity of responsibility could lead us to weak estimated economic voting effects. If this is the case, then the use of economic performance to predict electoral success across these various kinds of electoral contexts contains important sources of bias. However, the degree to which institutional rules covering dissolution explains the patterns of dissolution can be more directly examined using constitutional provisions and established norms in these countries.

Schleiter and Morgan-Jones (2009) categorize which actors have constitutional powers to dissolve (or block the dissolution of) parliament in a set of European democ-

racies. The categories they lay out are for countries in which the prime minister has the power to initiate parliamentary dissolution (Prime Minister Dissolution), the head of state has the sole prerogative (Head of State Dissolution), countries where dissolution can only occur when there exists no feasible government that could obtain parliamentary confidence (Constrained Dissolution), and a set of countries that fall into none of these categories that I term "other means of dissolution". While these categories need not be mutually exclusive in theory, they are in practice. That is, there are no constitutions in this dataset that give more than one actor the ability to unilaterally dissolve parliament. Further, even when constitutions give a single actor the ability to dissolve parliament at will, should that actor be unable to maintain parliamentary support, they would eventually be forced to return to the polls in order to gain a mandate and effectively govern.

Table 2.3 draws on an expansion of the categorizations of constitutional rules over parliamentary dissolution from Schleiter and Morgan-Jones (2009) to include all countries in the dissertation dataset included.[9] Table 2.3 shows the distribution of the types of elections described above across dissolution rules. The first column shows that end-of-term elections are the most common type of election in all countries other than those in which the prime minister can unilaterally dissolve parliament. Only in countries where the prime minister has the sole right to call elections are end-of-term elections not the most common; nor do end-of-term elections account for the majority of elections in either countries where the prime minister or the head of state can unilaterally call elections. It is end-of-term elections that most scholars of economic voting seem to have in mind when examining the relationship between the economy and election results. However, when either the prime minister or head of state have the right to call early elections they do so with nearly equal (or in the case of prime ministerial control of dissolution, greater) frequency as they wait until the

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[9]This data comes from the first three columns of Table 1 in Schleiter and Morgan-Jones (2009).

Table 2.3: Who Can Unilaterally Call Elections and Election Types

	End-of-term	Premier-timed	Opposition-timed	Early other
Head of State Dissolution	17	10	11	2
Prime Minister Dissolution	43	55	13	4
Constrained Dissolution	7	2	0	1
Other Means of Dissolution	37	8	10	2
Total	**104**	**75**	**34**	**9**

end of the term.

Unsurprisingly, premier-timed elections are the most common in countries where the prime minister can unilaterally dissolve parliament. While prime ministers often choose to allow parliament to carry out its full term in office when they have the power to dissolve early, they still are twenty percent more likely to call an early election than to last their full mandate.

When a head of state can unilaterally dissolve parliament early elections are nearly evenly split between premier- and opposition-timed elections. This reflects the potential for presidents to be of the same party of either the majority or minority in the parliament: when the president is the government's co-partisan, an early election is considered premier-timed; a president aligned with an opposition party's decision to dissolve parliament is considered opposition-timed. Finally, the only country with constrained parliamentary dissolution in this dataset is Germany, where the majority of elections have been held at the end of the parliamentary term. Through the rest of the dissertation, this category is combined with the Other Means of Dissolution category.

Tables 2.2 and 2.3 both suggest that institutions matter in determining how parliaments expire. They also indicate that traditional measures of clarity of responsibility are correlated with institutions that empower prime ministers and opposition parties in the timing of elections, indicating that models using only clarity of responsibility are suffering from omitted variable bias. The ability to go to the polls at will provides some politicians the opportunity to improve their chances of holding power beyond

what we might expect from simple economic voting models. While the relationship between clarity of responsibility and the proportion of end-of-term, premier-timed, and opposition-timed elections is clear, it is also clearly not linear. In particular, moving from least to most clear institutional context does not result in anything approaching a linearly decreasing proportion of premier-timed or opposition-timed elections. If these elections are being called precisely because they are likely to result in significantly different outcomes for incumbent prime ministers, this non-linearity could result in statistically insignificant or even incorrectly signed coefficients for con-textually dependent economic voting models, like those described in Chapter 1. The patterns detected in Table 2.3, however, more strongly align with the theory presented here.

2.4   Conclusion

There are considerable reasons to rethink the current use and interpretation of institutional constraints on the study of the economic vote. The exclusive focus on voters' interactions with political institutions fails to incorporate how strategic politicians use these institutions to promote particular types of economic voting as it suits their needs. This chapter introduced a theory of endogenous economic voting. Politicians observe the economy and the constraints that they face when calling elections. Voters need not pay any attention to this strategic behavior, and instead they need only respond to the economic stimuli they face in their daily lives when they enter the ballot box. Anticipating a relatively unsophisticated electorate, politicians call elections at moments they anticipate economic voting to best serve their office- and policy-seeking goals to the extent feasible given the constraints they face. The institutional factors that empower or constrain various parties are many of the same factors used to explain variance in the economic vote in the clarity of responsibility theory that assumes highly attentive, rational voters and helpless politicians. However, as

seen in Table 2.2, if the theory presented here is correct, clarity of responsibility alone would produce muddled and insignificant results such as those shown in Chapter 1. The non-linear relationship between clarity of responsibility and the types of elections being called would mean that the linear models of increasing clarity producing increased economic voting and, thereby, increased vote share for incumbent prime ministers are likely to come up short.

The rest of the dissertation explores the implications of this theory. Before testing the theory, however, Chapter 3 describes the election types data in greater detail. In particular, it describes each of the cases included in the dissertation, definitions of each election type category, and describes in greater depth many illustrative cases. It also provides specifications of the empirically novel opposition-timed election category developed in this dissertation. While the role of the opposition is described in the theoretical and case studies literatures of coalition termination (e.g., Diermeier and Stevenson, 2000; Lupia and Strøm, 1995), its role in election timing and outcomes has not been broadly tested in the literature. The appendix of Chapter 3 contains the coding and a brief vignette for every observation in the dataset.

CHAPTER III

How Elections Happen: End-of-term and varieties of early elections

Electoral swings are generally thought to be driven by economic performance in developed democracies. However, the predictive strength of the economy's effect on election outcomes is generally weak, even after accounting for institutions that make identifying the actor(s) who ought to be held accountable more or less difficult (see Chapter 1). The previous chapter identified an explanation for the weakness of these results: the incorrect assumption that the presence of an election is exogenous to economic performance. In fact, the timing of elections is fungible in most highly industrialized democracies. Evidence that economic performance predicts the timing of elections across a number of these countries (see Kayser, 2005; Strøm and Swindle, 2002; Ito, 1990; Smith, 2004) undermines this common, implicit assumption about the comparability of cases in much of the empirical work on economic voting at the level of election outcomes.

Building on Chapter II and Lupia and Strøm (1995), this chapter identifies four distinct ways that parliaments can end. Two of these types of elections ought to be strategically similar: the first is through the expiry of the parliament's maximal constitutional term; the second is an election held before the maximal term but called for reasons unrelated to who governs, such as constitutional changes or the

death of the prime minister. The other two types of elections are called early, but promulgated by different actors. Many are initiated by the prime minister in order to retain her party's dominance in government, while some are initiated by non-prime ministerial parties. In the following section I describe how these elections are identified. Section 3.2 describes each type of election in greater detail, showcasing examples of each type of election. Section 3.3 describes some empirical regularities between the constitutional and political arrangements that are associated with the different types of elections. These observations inform the following chapters where evidence that the economic means and political capacity to time elections drives election outcomes is tested. Appendix C shows which type of election each observation is coded as and a brief description of the basis for the coding.

3.1 The universe and categorization of elections

The universe of cases included in this dissertation are elections held between 1967[1] and 2010 in highly industrialized, parliamentary countries where parliament can legally be dissolved before the full tenure has expired. The legal capacity to dissolve parliament before its maximal term is essential to the causal mechanism that strategic politicians call elections at moments when the economy's salience provides them electoral benefit. Countries with set parliamentary terms, such as Norway, the US, and Switzerland, are not appropriate for testing this theory.

The first step in categorizing observed elections is to determine whether the election was held "on time" or "early." Work on opportunistic election timing examines at what point during a parliamentary term elections are called. While much of this work considers time in a continuous fashion, the delineation between early and end-of-term elections is blurred. Reid (1998) counts any election in the last year of a parliament

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[1] Observations for Greece, Spain, and Portugal begin only in the second regular election after their return to democracy.

as an end-of-term election; Hellwig and Samuels (2008) consider only elections held in the final three months of a parliament as being end-of-term; and Tavits and Schleiter (2014) only consider elections held in the month prior to the maximum parliamentary term to be end-of-term. This dissertation follows Hellwig and Samuels (2008) in delineating "on-time" elections from early ones by considering any election held more than 3 months prior to the maximal parliamentary term to be early and all others to be end-of-term elections. Once all early elections are identified, how the early election came about must be identified.

In order to determine how each election came about I read contemporaneous and historical accounts of each early parliamentary dissolution.[2] For each election at least two sources were consulted. For nearly all dissolutions, Keesing's World News Archives and/or the Inter-Parliamentary Union's PARLINE dataset were used to identify the circumstances under which the early election was called. Many dissolutions in the 19 countries in this sample since 1981 are covered by the journal *Electoral Studies*, where national specialists give detailed descriptions of how the election came about, what issues the campaign was fought on, and the election's outcome. When at least two of these sources were unavailable or there remained ambiguity in how the election came about, other sources, such as national newspapers, books on the country's politics, or personal correspondence with national experts were used.

In most cases, who brought about the dissolution was relatively clear. For instance, Margaret Thatcher's 1983 dissolution of the British House of Commons was clearly a decision made by Mrs. Thatcher and her Conservative Party – the party ruled alone through it's commanding 52% seat share and it is only on the advice of the prime minister that the Queen dissolves parliament (see Section 3.3 below). However, there are instances in which who brought the parliament to an early end is debatable. When

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[2]Parliamentary dissolutions are the formal procedure for ending a parliament and bringing about new elections in parliamentary countries. For a description of the circumstances under which parliaments can be dissolved, see Section 3.3 below.

a coalition agreement links the parliament's term to the government's tenure (as the agreement between the SPÖ and the ÖVP in Austria following the 1994 election did), does a junior coalition member's decision to withdraw from the government constitute an opposition or premier-timed election? Was there a reasonable policy concession that could have been made to keep the government (and thereby the parliament) running (as per Lupia and Strøm (1995))? Was the coalition agreement truly binding, or could the prime minister's party have continued on, ignoring its earlier promise? These are ultimately questions of judgment and scholars could interpret these cases differently. The appendix to this chapter lists every election coded for this project. It provides the coding of each election and a very brief synopsis of the circumstances surrounding each early election in this dataset to illustrate why it was assigned to a particular category.

3.2 Election types

In this section, I describe the ways in which elections come about in the developed democracies. While the modal election occurred because of the parliament was at (or within three months) of its maximal length, most elections in parliamentary countries are called early. Of those early elections, most are called by the country's premier, but nearly 30% are brought about by the opposition. Below, I describe what end-of-term, premier-timed, opposition-timed, and other early elections look like and how these election types might differ from one another in ways that affect our observations of the economic vote.

3.2.1 End-of-term elections

End-of-term elections are elections of necessity. They are held when the constitution mandates, anywhere from three to five years after a parliament's election. In some democracies, such as the United States, Norway, and Switzerland, elections are

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only held on these constitutionally mandated dates, with no possibility for premature polling. Most parliamentary states, however, provide a maximal term length, while allowing for early elections. These latter countries are the focus of this dissertation. In countries where elections can be held at any time, nearly half (49%) of all elections still occur in the last three months of the parliament's term.

Below, the motivations and expectations that produce early dissolutions are examined. Power is assumed to be a motivating factor in the timing of parliamentary dissolutions, with those who call an early election expected to fare well at the voting booth. Does the observation of an end-of-term election provide us any similar insights into the expected outcomes of these elections? Generally, one would conclude that it does not.

End-of-term elections can signal any number of expectations for an election's outcome. Assuming that politicians are interested in maximizing their power, and that their power is tied to their electoral success, then end-of-term elections can indicate at least three expected outcomes for politicians with the capacity to call early elections: they expect to lose regardless of when elections are called; they expect to win regardless of when elections are called; or they are highly uncertain of their electoral prospects and risk averse. If a premier[3] is able to sustain a cabinet through the end of the parliament's term, this could indicate that the government is stable and could have maintained parliamentary support well beyond the end of the term; alternatively, it could have been in peril of falling any day, only just eking over the finish line (Warwick, 1994). We thus know little about the value of the current parliament to the premier based on the observation of an end-of-term election.

Furthermore, end-of-term elections could signal a premier who expects to handily

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[3]For ease of explication, I refer only to the premier's incentive to call early elections. Since, as described below, premiers tend to have significantly more institutional power to time elections, and they have been the focus of previous studies on election timing, I choose to maintain this language. However, similar – though not identical – logic applies to opposition parties' incentives to call early elections rather than wait out the parliamentary term.

win any election, or one that is quite certain her party will be on the outs after the election. A premier who is quite certain that she will be returned to power by the voters has no incentive to cut her term unnecessarily short by calling an early election. Such a premier can maximize her hold on power by letting the parliamentary term run its course and the presiding over the subsequent one. A premier who expects to see her party turned out of office at an election has similarly little incentive to march to her fate early. She will hold onto office until the last possible moment the constitution allows before facing the voters. Social scientists, however, cannot distinguish between these two types (or any intermediate type with a fair degree of uncertainty about their chances at the polls) *a priori* through the observation of an end-of-term election. In fact, end-of-term elections are nearly as likely to return the premier to office as they are to turn her out: approximately 52% of end-of-term elections result in the prime minister's retention.

All countries in this dataset held end-of-term elections in the past forty years. Some countries have rarely seen their parliaments fulfill their full mandate – only one of the fifteen elections in Denmark since 1970 have occurred at the end of the term. For many countries, however, end-of-term elections are the norm. Germany, the Netherlands, New Zealand, and Sweden all have many more end-of-term elections than early elections. Section 3.3 discusses some of the institutional similarities that reduce the incentive or capacity of premiers and opposition parties to end parliament early.

3.2.2 Premier-timed early elections

Premier-timed elections are elections of choice. Premiers who call elections before the end of their maximal term are giving up a relatively certain hold on power in the near term for a potential extension of that power in the long term. Given this tradeoff, a premier ought to call elections only when the value of the remainder of

their current term is relatively low and the likelihood of winning a new election now is relatively high, to hedge against the risk of loss (Lupia and Strøm, 1995). Premier-timed elections are therefore expected to maximize the premier's hold on power.

Premiers are generally synonymous with prime ministers in this dataset. In the cases of semi-presidential systems,[4] elections initiated by a president who is from the same political party or bloc as the prime minister are considered premier-timed elections because their interests, though not identical, are highly aligned. The president is assumed to prefer co-partisans ruling in parliament to any opposing party. Hence, if the president calls an early election for the parliament while its party is leading the cabinet, this is likely to be an effort to bolster his party's power continued control of parliament and, thereby, his own power.

Premier-timed elections are called by politicians who want to return the current prime minister and/or her party to the preeminent position in government. While we cannot directly observe these preferences (and premiers' expectations do not always come to fruition), we can observe the manner in which the early election comes about. Premier-timed elections are those in which the election is held at least 3 months prior to the parliamentary maximal term as prescribed by the constitution and in which a premier calls for early elections while still able to maintain the confidence of the current parliament.[5] That is, the premier is still able to accomplish the day-to-day tasks of governance (though perhaps not able to implement major policy proposals) with the parliament and there is no apparent expectation of imminent confidence

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[4]In this dataset, semi-presidential countries are Finland until 1990 and France, totaling 17 elections.

[5]There are some instances in which prime ministers lost confidence votes and yet were coded as premier-timed elections. This is directly opposed to the definition of premier-timed elections. In particular, two early elections in Germany resulted from lost votes of confidence. Both the election in 1983 and the election in 2005 resulted from lost confidence votes engineered by the Chancellor. Due to the impediments to early elections in place in the German constitution, it takes a loss of confidence and the Bundestag's inability to invest a new government that produces a constitutional crisis necessitating a parliamentary dissolution. Chancellors Kohl and Schröder both instructed members of their own party to abstain from a confidence vote and subsequently vote against alternative governments in order to go to the polls early (Helms, 2007; Kaase, 1983)

votes being held or lost.

The question of whether or not a government faces a vote of no confidence from the parliament is, on some level, tautological. The key aspect of the definition of a parliamentary system is that the government can be dismissed by the legislature at any time. However, the risk of a confidence vote being raised, let alone *lost*, varies considerably (Williams, 2013, 2014). Most no-confidence measures do not result in the removal of the government. Premiers in minority and coalition governments face a larger risk of facing and losing a confidence vote than do governments controling a majority of parliamentary seats on their own. Those with weak party cohesion may lose the support of backbenchers in confidence votes, though backbencher revolts on questions of confidence entail serious political costs and are exceedingly rare. For the purposes of data categorization, I considered governments that were not defeated on a major policy initiative in the immediate run-up to the dissolution and/or held a majority of seats in the lower house to be impervious to an imminent threat of lost parliamentary confidence.

The ability to govern pushes premiers to call early elections. Blocking important measures, such as budget/supply or reforms the premier's party campaigned on, reduce the value of the current parliament for incumbents–regardless of the expected value of a new parliament–making an early election relatively more attractive. Furthermore, a prolonged spell of government crisis may in fact harm the incumbent at any future polling date as voters increasingly view the premier as unable to "get things done." Since enacting significant policies is ostensibly the *raison d'être* for governing, the threshold for calling new elections falls with the difficulty of passing major legislation.

These dynamics are best shown through considering historical elections. Below, I describe several of the premier-timed elections in this dataset. These cases illustrate the various reasons that premiers cut their rule short and the outcomes that these

choices can produce.

The United Kingdom's election of 1987 is the prototypical example of the "opportunistic" elections described in the literature (e.g., Ito, 1990; Kayser, 2006; Smith, 2004). On 18 May, Margaret Thatcher dissolved parliament a year early and set elections for 11 June. The dissolution was announced four days after local elections in which Mrs. Thatcher's Conservative Party performed well (Inter-Parliamentary Union, 1987; Cozens and Swaddle, 1987). This election occurred following a rebound in the polls for the Conservatives, who had suffered from embarrassments most notably the internal cabinet fights made public in the Westland affair[6] of 1985 and 1986. Following a period of volatility in electoral support, the period of strength in polling was viewed as, "a window of popularity [that] opened up, it was an opportunity the prime minister felt unable to miss" (Cozens and Swaddle, 1987, p. 263). Mrs. Thatcher's gamble paid off, with her Tories retaining a commanding majority of 102 seats in the parliament and her place as first among equals secure. Similar stories lie behind many premier-timed elections in countries like Canada and Japan.

While many of the premier-timed elections considered in this dissertation follow the prevailing narrative of a prime minister opportunistically calling an election to coincide with a strong economy and robust support in the polls, there are numerous instances in which premiers called elections because their ability to enact legislation was hindered to such a degree that the value of ruling in the current parliament was

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[6]The Westland affair involved Prime Minister Thatcher and her Defence Minister Michael Heseltine's cabinet dispute over the future of the British helicopter industry. Westland Helicopters had become unprofitable and by November 1985, American Aircraft Corporation offered a bailout deal that would give them a minority stake in Westland (Travis, 2014; Winder, 1986). Heseltine preferred a European solution, while Thatcher preferred the offer of an American company, Sikorsky Aircraft, to purchase a minority share of Westland. The dispute was made public through a series of leaked letters from both Heseltine, where he argued to Llyods Bank that Westland was likely to lose European contracts if it chose the Sikorsky option, and from the Solicitor-General, which accused Heseltine of making claims with "material inaccuracies" (Kavanagh, 2015). Ultimately, Heseltine resigned his cabinet post over the disagreement. The contradictory statements made by those in Thatcher's inner circle and by supporters of Heseltine led many to wonder who was lying (Winder, 1986).

exceedingly low. The **Danish election of 1988** exemplifies such a case. On 14 April 1988, Prime Minister Schlüter's four party minority coalition government was defeated on an opposition sponsored resolution to tighten the country's ban on nuclear weapons during peacetime, including in ports (Inter-Parliamentary Union, 1988a; Statsministeriet, 2014a). On the 18th Schlüter announced the dissolution of the parliament and the date of new election only eight months after the previous election. Schlüter aimed to receive a mandate to maintain Denmark's continued full membership in the North Atlantic Treaty Organization (NATO). While his Conservative People's Party lost three seats, Schlüter was able to form a new minority coalition government with the Ventstre (Left) and Radicale Venstre (Radical Left/Liberal) Parties that lasted two and a half years (Statsministeriet, 2014b). This case shows how the incentive to call elections is influenced by coalition politics and the ability to push forward the party's platform

Finally, while we can typically assume that premier-timed elections are the result of significant forethought and strategic decision making, it is important to note that mistakes can and do occur. **New Zealand's 1984 election** was, by many accounts, an impulsive choice by National Party Prime Minister Robert Muldoon. Convention in New Zealand was that prime ministers only ask the Governor-General for parliament's early dissolution when they cannot maintain parliamentary support or when highly contentious legislation is under consideration that is deemed to need a new electoral mandate, making early dissolutions rare (McLean, 2014). Muldoon's decision to dissolve parliament at 11:15 p.m. on 15 June thus came as a surprise to many (Jackson, 1985). His government had only a two seat majority and at least two MPs would regularly vote against the government on individual measures, but they supported the Muldoon cabinet in all measures of confidence. When National MP Marilyn Waring told the prime minister that she planned to resign the whip on an opposition-sponsored anti-nuclear bill, Muldoon announced that he was dissolving

parliament (Jackson, 1985, p. 75). While Muldoon was visibly drunk when he made the announcement (TVNZ, 2001), recent improvements in both inflation and unemployment (and expectations that these improvements were unlikely to be sustained through November, when regular elections would have been held) made July a better time for National to go to the polls than any other foreseeable moment (Jackson, 1985). It is thus unclear the degree to which this was a strategic decision rather than a brash mistake. Ultimately, however, Muldoon's National Party was defeated in the election, losing ten seats and its narrow majority to the Labour Party.

While these cases differ in many ways – from the underlying reason PMs wanted to go to the polls early to the election outcomes – they are all cases in which the premier (or her party) was the one to decide on the timing of elections. As the following section shows, a significant subset of early elections are brought about by parties that do not control the premiership, and these elections are very different affairs from those described above.

3.2.3   Opposition-timed elections

Unlike premier-timed elections, opposition-timed elections are inherently not of the premier's choosing. These elections occur when some actor(s) outside of the prime minister's party dissolves the parliament. While these dissolutions are likely to be motivated by similar incentives as those initiated by premiers, their outcomes are likely to be quite different. While premier-timed elections are expected to result in the prime minister's continued power, those timed by the opposition ought to be least likely to result in the prime minister retaining her office. If the opposition were interested in forming a government with the sitting prime minister, it is unlikely that they would initiate such a proposal by publicly censuring the sitting government. Beyond the potential for a premier party to lose seats and be unable to form a government with the initiating party, both sides face problems if they try to work

together too soon after an adversarial face-off. Premier parties are unlikely to trust parties that voted them out of office in a humiliating fashion to negotiate honestly or abide by coalition agreements. Likewise, parties that bring down a sitting government are likely to face constraints from their voters that make working with a party it publicly stated to have no confidence in that preclude immediate coalescence.

In this dataset, any early election that the prime minister did not sanction is considered an opposition-timed election. Thus, an election forced by a vote of no confidence, by the withdrawal of an important coalition partner, or by splits in the prime minister's own party are all counted as opposition-timed election.

Canada's 2006 parliamentary election exemplifies how many opposition-timed elections come about. In 2006, the Canadian House of Commons was dissolved three years early when Prime Minister Paul Martin's minority Liberal Party government lost a vote of confidence. While the government was expected to call an election later in the spring, "the three opposition parties had simply decided, each for its own reasons, to bring about an election earlier rather than later" (LeDuc, 2007, p. 716). The government was dogged by the long-running sponsorship scandal[7] that had cost the Liberal Party their parliamentary majority in 2004 and remained a source of embarrassment to the government when the House of Commons was dissolved in

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[7]The sponsorship scandal pertains to the misuse and misallocation of funds from the "sponsorship program" in the province of Quebec. The sponsorship program's aim was to advertise the work of the federal government in the province as part of an attempt to reduce support for Quebec independence and promote federalism (Spo, 2006). Between 2002 and 2004, improprieties in this program were brought to light by federal auditor general, Sheila Fraser. The Auditor General's Commission of Inquiry on the sponsorship program found, among other problems, "insufficient oversight at the very senior levels of public service which allowed program managers to circumvent proper contracting procedures and reporting lines; a veil of secrecy surrounding the administration of the Sponsorship Program and an absence of transparency in the contracting process; ... gross overcharging by communications agencies for hours worked and goods and services provided; ... deliberate actions to avoid compliance with Federal legislation and policies ...; five agencies that received large sponsorship contracts regularly channelling money, via legitimate donations or unrecorded cash gifts, to political fundraising activities in Quebec, with the expectation of receiving lucrative government contracts; ... the refusal of Ministers, senior officials in the Prime Minister's Office and public servants to acknowledge their responsibility for the problems of mismanagement that occurred" (Minister of Public Works & Government Services, 2005, pp. 5–7).

January 2006. Although the economy was performing well, with the unemployment rate at its lowest point in more than twenty years and growth at a respectable 2.5%, the long-governing Liberals were unable to capitalize on this and set the campaign's focus on economic performance and economic policy because of the timing of the election (LeDuc, 2007). Ultimately, this resulted in the Liberal Party's loss and the formation of a minority Conservative government headed by Stephen Harper with 245 seats to the Liberals' 103.

Opposition parties can sometimes determine election timing even when facing majority governments. Whether through coalition breakdown, interventions by the head of state, or factionalism of the prime minister's party, majority governments are still vulnerable to opposition-timed elections. The **Austrian election of December 1995** was brought about by the Socialist Party of Austria's (SPÖ) junior coalition partner, the Austrian People's Party (ÖVP). The grand coalition between the SPÖ and the ÖVP formed following the 1994 election tied the parliament's term to the government's term, with the coalition agreement stating that the parliament should be dissolved if the government broke apart (Müller, 1996). By April 1995, ÖVP had fallen behind the far-right Freedom Party of Austria (FPÖ) in opinion polls and the party elected a new chairman, Wolfgang Schüsell. Under Schüsell's leadership, the ÖVP recovered in the polls to pull ahead of the FPÖ.

In an effort to retain momentum, the ÖVP "decided not to compromise in the budgetary negotiations with the SPÖ," and insisted that all budgetary shortfalls be addressed through spending cuts, particularly cuts to social expenditures targeted at SPÖ supporters (Müller, 1996, p. 411). While the ÖVP had been gaining in the polls, support for the SPÖ had been in decline since the 1994 election and its lead over ÖVP was minimal. In October 1995, the ÖVP declared that an impasse in budget negotiations had occurred and that the voters needed to resolve this political question. The ÖVP's withdrawal from the government triggered early elections;

Schüssell declared that the party was willing to form a coalition with any party, implying that the ÖVP would form a government with the FPÖ if given the chance. The campaign's focus on economic issues, coupled with the ÖVP's newfound willingness to move away from the political center, ultimately resulted in a strengthened SPÖ at the expense of the FPÖ. The FPÖ's electoral rise since 1986 was based on its xenophobic and anti-establishment platform, which made an election focused on questions of economic governance a disadvantage. Ultimately, the election produced a new grand coalition between the SPÖ and the ÖVP, with the ÖVP once again in the position of the second party (Inter-Parliamentary Union, 1995). In this instance, a short-term boost in support for the ÖVP was not sustained at the voting booth after they forced an election on the chancellor's party.

Early dissolution of the French parliament by the President are sometimes attempts at opportunistic election timing by an opposing partisan. The **1988 French parliamentary election** followed on the heels of the presidential election in May of that year when Socialist Francois Mitterand was returned to power. He faced a parliament narrowly controlled by the conservative bloc, led by Jacque Chirac of the RPR, elected in 1986 (Inter-Parliamentary Union, 1988b). Upon his re-election, he dissolved parliament and scheduled new elections for June. The new parliament produced a coalition government composed of center-left and the center-right that largely supported Mitterrand's agenda. Because of the staggered timing of French parliamentary and presidential elections, the potential for divided government arises throughout presidential and parliamentary terms. While most elections occur at the mandated end of the parliamentary term, two of the five early French elections in this dataset were an attempt by presidents to gain a favorable parliamentary majority when facing a opposition dominated parliament.

Japan's 1993 election resulted from a combination of opposition pressure and factionalism in the long-governing Liberal Democratic Party (LDP). The Social Democratic Party of Japan (SDPJ) brought a no-confidence measure to the floor of the Diet eight months before the mandated end of the parliament, citing the Miyazawa government's failure to address corruption and failure to act on promises of compromise with the opposition on electoral reforms (Inter-Parliamentary Union, 1993; Jameson, 1993). Fifty-five members of the LDP either abstained or voted with the opposition, leading to a 255 to 220 defeat of the government that ostensibly had a 274 seat majority (Jameson, 1993). The defectors went on to form two new liberal parties prior to the election, the New Party Sakigake and the Japan Renewal Party. Following the election, the SDJP, Japan Renewal Party, and New Party Sakigake formed a coalition government with four other small parties under the leadership of SDJP's Mirohiro Hosokawa. It was the first government to exclude the LDP since the party's formation in 1955. While most elections in Japan since the 1970s have been premier-timed (8 of 13), even governments in "premier-timing countries" (Kayser, 2006, p. 440) may at times face unplanned, and unwelcomed, early elections.

These four examples illustrate the vulnerability that minority and majority governments alike face when either political institutions or political divisions empower opposition parties to force early dissolutions. These dissolutions, however, are less likely to benefit the prime minister's party than those she chooses herself. Of the 32 opposition-timed elections observed, 65 percent resulted in the election of a new premier party. This is compared with turnover of the premiership in only 29 percent of premier-timed elections, a marked difference in outcomes.

3.2.4   Other-early elections

Both opposition- and premier-timed elections are the result of strategic choices by politicians to promote their hold on power. There is a small set of early elections,

however, that do not fit into either categorization. These other-early elections are generally not timed to increase the power of the premier or opposition, but to fulfill some other requirement. These range from changes in national institutions that require parliamentary dissolution; resuming traditional election timing after the previous election was held early; or because the prior election was predicated on the promise of fulfilling specific, limited goals. While it is possible that some of these dissolutions were in fact part of a power grab, my research has not provided me evidence of this.

These other-early elections can take on myriad forms. The **Swedish 1970 election** was held one year early because a constitutional reform that changed Sweden from a bicameral to a unicameral parliament was passed in 1969, and so a new single parliament had to be elected (Inter-Parliamentary Union, 1970). The timing of this election was agreed upon by the parties contesting it. Similarly, the **Belgian election of 1968** was held a year ahead of schedule following the passage of constitutional reforms increasing devolution to linguistic communities (Inter-Parliamentary Union, 1968). Changes to the constitution are not ratified until they have been passed by two parliaments, each with their own electoral mandate. As such, amendments made to the constitution result in nearly immediate dissolution of both houses of parliament in Belgium.

The **1979 Finnish election** was held approximately six months early to return elections to their traditional timing in the early spring. All accounts of this election describe it as "a parliament that had run its full four-year course" (Arter, 1979, p. 422). However, the previous election had been held in September 1975, meaning that this election that is treated as end-of-term by many analysts is considered early in this study. It is this very ambiguity that requires coding the 1979 election as an other-early election.

Finally, in times of crisis, governments can form under the premise of solving

particular problems and then returning to both politics as usual and the ballot box. The **Greek elections of November 1989 and April 1990** fit this description. The November 1989 election followed only five months after the previous parliamentary election that produced no clear majority party. The New Democracy party partnered with Synaspismos[8] to govern in the short-term while investigating corruption charges against the outgoing Social Democratic PASOK government. Once the investigations were complete (which led to removal of parliamentary immunity for several former government ministers, including former Prime Minister Papandreou, and their referral to the justice system), the government resigned and a caretaker government was installed until elections could be held five weeks later (New York Times News Service, 1989; Simons, 1989; Wor, 1989).

Ultimately, the November election also failed to produce a single-party majority government, leading to an ecumenical government of all three major political parties – New Democracy, PASOK, and Synaspismos – led by the respected former head of the Bank of Greece, Xenophon Zolotas. The parties formed a unity government under the agreement that new elections would be held in April of 1990 (*World In Brief: Greece: Accord Reached on Unity Government*, 1989). This was in order to stay off a return to the polls in December that would be constitutionally required if no government received the support of parliament. Both of these elections illustrate instances in which a post-election government is formed with the precept of fulfilling a specified mandate and then returning to the voters. The timing of these elections is therefore not strategic in the sense that we have considered for both premier- and opposition-timed elections.

All remaining other-early elections can be examined in Appendix C. While their specifics may vary from those described above, their lack of any clear partisan advantage means they do not fit into any of the earlier categories. In the statistical

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[8]Synaspismos is alternatively known as the Coalition of Left-Wing and Progressive Forces, an alliance of left-wing and communist parties.

work of Chapters IV and V these observations are typically pooled with end-of-term elections, though their exclusion from the analyses generally does not alter the substantive relationships. When their exclusion does produce different results, these are noted in the text.

3.3   Institutions and types of elections

Section 3.2 describes the types of elections observed in advanced industrial democracies over the past forty years. The theory presented in Chapter II argues that the patterns we observe between the state of the economy and election outcomes is a result of the type of election voters are confronted with, and that the type of election is itself a product of the incentives to go to the polls and the ability of politicians to bring about an election when they have the incentive to do so. This ability to call elections at will, however, varies between both premier and opposition parties within a country and over time, as well as for these actors actors across countries. This section describes the conditions under which we might expect these incentives and capacities to be enhanced or hindered.

3.3.1   Incentives

While the focus of this dissertation is on economic performance as the driver of early elections, even in times of good (poor) economic performance, early elections may not promote the goals of the premier (opposition). Additional institutional and political factors can make early elections more or less attractive than the business cycle would otherwise suggest. In particular, the length of the parliamentary term and the need for cooperation with other parties both affect the incentive to hold elections prior to the term's end.

Table 3.1: Term lengths in parliamentary countries

	Countries	No. premier-timed/total
3-year term	Australia	7/15
	New Zealand	2/14
	Sweden (1970–1994)	0/9
4-year term	Belgium	4/13
	Denmark	13/15
	Finland	0/11
	Germany	2/10
	Greece	7/11
	Japan	8/13
	Netherlands	3/13
	Portugal	3/11
	Spain	3/9
	Sweden (1994–present)	0/3
5-year term	Austria	3/13
	Canada	5/12
	France	3/11
	Ireland	5/11
	Italy	3/10
	Luxembourg	0/8
	United Kingdom	7/11

The maximal term length of the parliament   (dis)incentivizes early elections for premiers.[9] The longer the maximum term, the smaller the share of total tenure any early election represents. For instance, an election held one year before the end of the term represents fully one-third of the government's possible time in power in New Zealand, but only twenty percent of the term of a British prime minister. From the perspective of the prime minister, losing the last year of a term is much more "expensive" in New Zealand because it constitutes so much of their possible tenure.

Furthermore, as the term length increases, so to do the opportunities for positive economic circumstances to arise that increase the incumbent's likelihood of extending her hold on office. If the likelihood of an upturn in the business cycle is equally likely in any given year,[10] then the likelihood that an upturn of sufficient magnitude will occur increases. As such, we would expect that longer parliamentary terms increase the likelihood of premier-timed elections. Table 3.1 below, lists the maximal term lengths of parliaments in the sample, as well as the number of premier-timed and total number of elections for each country. While there are a number of premier-timed elections in countries with longer terms, countries such as Australia (3-year term) and Denmark (4-year term) both defy expectations with their high proportions of premier-timed elections. However, one should keep in mind that this single incentive is not expected to explain the frequency in premier-timed elections cross-nationally.

An additional factor that affects incentives for early elections is the need for co-operation with other parties to govern. Two related aspects of this are **the effective number of parliamentary parties** and the need to form a **coalition government**.

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[9]Term length ought not affect the incentive for opposition parties to bring down a government. Opposition parties are not giving up something of great value when faced with the possibility of entering the halls of government in place of being in the opposition. As such, term length should only affect the likelihood of premier-timed elections.

[10]This is potentially a problematic assumption. Being in an upturn in any particular year will be related to the business cycle in the preceding year. Further, national macroeconomic policies could affect economic performance as per the political business cycle theory. However, most of the countries in this sample would be considered relatively small and effectively price takers on international markets (with perhaps the exceptions of Germany, the UK, and Japan), meaning that their abilities radically alter their countries' economic prospects are limited.

These two facets of parliaments both affect the incentive to call early elections through different avenues. First, the more fragmented the parliament (i.e., the larger the effective number of parties) decreases the chances of attaining a single party majority, increasing the need to form coalitions. More fragmented parliaments mean that there are more potential coalition partners, which ought to decrease the likelihood of needing to dissolve parliament over an inability to pass legislation. However, while there may be more potential coalition partners (or replacements for existing partners), forming new coalitions is a potentially costly process (e.g. Heller, 2015; Lupia and Strøm, 1995). Coalition formation can be a difficult process that involves significant negotiation over cherished values and strategically important portfolios. The incentive to pay the costs of these types of negotiations wanes over the parliament's term. Thus, the effective number of parliamentary parties increases the incentive to call early elections for both premiers and opposition parties as the term wanes.

However, the fragmentation of parliament is a generally persistent feature of a country's political cleavages and institutions. As such, parties can expect that they will face broadly similar options over coalition partnerships in the next parliament as they face in the current one (though with some shifts in the relative bargaining powers of the parties due to their changing seat shares, to be sure). While there may exist many potential coalition partners, some will hold policy positions so different as to make them uncoalitionable. As such, while there exist 2^{n-1} possible combinations of parties in any parliament, only a few subsets of parties are likely to coalesce with one another and other combinations are, while mathematically feasible, practically unlikely to form (Heller, 2015; Warwick and Druckman, 2006). If only a subset of coalitions is likely to form, and those coalitions are likely to contain many of the same parties from one election to the next, then the decision to force early elections entails considerations not only of one's own party's expected results, but the outcome of preferred coalition partners. As recent research suggests that citizens in countries

that are generally governed by coalitions are able to predict the outcomes of coalition negotiations (Duch and Tyran, 2013), it is reasonable to assume that politicians understand the likely outcomes of coalition formation very well. Politicians preferences over election timing is therefore likely to account for the expected electoral outcomes not only of their own party, but that of their preferred coalition partners relative to alternative coalitions. This means that there are likely to be circumstances in which calling an early election would allow a premier (or main opposition) party to improve their seat share, yet might diminish the value of the subsequent parliament because they would have to form an undesirable government or be left out of the cabinet entirely. As such, the expectation of needing to cooperate with other parties, and indirectly the expected fractionalization of the parliament, ought to reduce the incentive to call early elections for incumbents and oppositions alike. Thus, expectations for the direction of these factors' effects on the likelihood of premier- and opposition-timed elections are ambiguous.

3.3.2 Capacities

Even with strong incentives to return to the electorate early, not all actors are able to bring about premature elections across countries. Political institutions provide the clearest constraints on the calling of early elections. When one partisan actor cannot dissolve parliament without the agreement of another, that decreases the capacity of any single party to opportunistically time elections. Likewise, having the legal right to dissolve parliament unilaterally ought to increase the likelihood (and the observance) of early elections.

Table 3.2 describes how parliament can normally[11] be dissolved in each country in this dataset. There are broadly four categories of dissolution capacities. The first,

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[11]Normally means not due to a constitutional requirement to dissolve parliament. For example, several constitutions require new elections to be called if a set amount of time elapses and the parliament has not passed a vote of investiture for a new government, but this would not be considered "normal" dissolutions.

most consistent with the literature on opportunistic election timing, is countries where the prime minister can dissolve parliament at will. While in some of these countries (e.g., the United Kingdom[12]) the monarch is technically the person who dissolves parliament, convention dictates that she agree to early elections upon the prime minister's request. It is these countries that we would most expect to see premier timed elections and few opposition timed elections. The third column of Table 3.2 shows the number of premier-timed elections over the total elections held in that country during the period from 1967 through 2010. The first group of countries are those where the prime minister can dissolve parliament unilaterally. As we would expect from the discussion of the intersection between incentives and capacities, premier-timed elections are quite common where prime ministers can call early elections unchecked by other partisans. For six of the eleven countries where the prime minister can unilaterally dissolve parliament, premier-timed elections are the modal form of election. Premier-timed elections are not the modal type of election for any country where the prime minister cannot unilaterally dissolve parliament. It is only in two of the countries where prime ministers are able to unilaterally call early elections that we observe no premier-timed elections. The prime minister of Sweden had the power to initiate early elections for only three years in the dataset before a constitutional amendment made it such that any premature elections did not start a new parliamentary term, but only elected a new parliament to fulfill the existing parliament's mandate. This change significantly diminished the incentive to call elections as it did not give a new, full mandate. The other country with no premier-timed elections in this group, Finland since the 1991 amendment to the constitution, requires that the president dissolve parliament only when he has received a request from the prime minister, but also requires that he talk to all of the parliamentary groups and ensure no alternative government exists, thereby lessening the ability of the prime minister to call elections

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[12]In the period after this dissertation's data endpoint, the coalition government led by David Cameron passed a law that forbid early dissolutions of parliament.

opportunistically.

Additionally, there are some countries where a head of state is the only actor with the legal power to dissolve parliament. The five countries in this category, seen in the second group in Table 3.2, are all republics where a president serves as head of state. If a head of state can unilaterally dissolve parliament this could incentivize both elections favoring the prime minister's party and the opposition, depending on the whether the head of state and prime minister share a partisan affilliation. As such, countries with a head of state who is constitutionally empowered to dissolve parliament unilaterally ought to experience both premier- and opposition-timed elections. Again, this is the pattern we see in the second set of countries. Countries where the president can unilaterally call early elections see nearly equal occurrances of premier-timed and opposition-timed elections (column four). This is to say that presidents in these countries are very willing to prematurely dissolve parliament – whether this is a categorized as a premier-timed or opposition-timed election depends on whether the president and the prime minister are from the same party.

A third group of countries' constitutions (found in the third set of countries in Table 3.2) state that only the parliament itself can vote to dissolve the body early. This generally requires that preferences for early elections are held by a broad set of parties. Both Austria and Belgium have generally failed to produce single-party majorities during the period studied in this dissertation, ensuring that multiple parties must agree to an early dissolution of parliament. The early elections in these countries were generally a result of majority coalition governments that fell apart and could no longer expect to maintain the support of their parliaments. In some instances these were initiated by prime ministers, while in others they were the result of withdrawals from junior coalition members. However, in both of the countries where parliaments have to vote to dissolve themselves, the modal means of reaching

an election is through reaching the end of the constitutionally mandated term. Early elections, both initiated by the premier party and opposition parties, are less common than in either of the other circumstances described above.

Finally, there is a set of countries where early dissolutions, while constitutionally possible, are significantly constrained. In this set of countries, early elections are rare and, when they do occur, are oftentimes contentious political battles themselves. For instance, Germany requires that any vote of no confidence against a government be accompanied by a vote investing a new government with executive power. The two instances in which elections have been held early in Germany were both cases in which the chancellor engineered his own defeat in order to return early to the polls. In both cases, the Federal Constitutional Court had to rule as to whether or not a premature election was a legally valid option. The Netherlands has had one premier-timed and five opposition-timed elections in the past 40 years. This is due to the strong norm in Dutch politics that majority governments should rule and *rompkabinetten* should not govern long, and so minority governments tend to end with an early dissolution by the monarch. The opposition timed elections were all a result of the exit of a single party in a coalition government that led a formerly majority government to become a minority one.

3.4   Conclusions

This chapter has described the types of elections voters face in the industrialized parliamentary democracies. Early elections are brought about for seemingly similar office seeking reasons. However, the identity of the actor who initiated an early election provides us with an indication of the likely outcome of the election. Early elections, at the least, are likely called by premiers or oppositions that expect a better

Table 3.2: Dissolution Powers Across Nations

Dissolution capacity	Country	No. premier-timed/total	No. opposition-timed/total
Prime minister	Australia	7/15	1/15
	Canada	5/12	3/12
	Denmark	13/15	1/15
	Finland (1991 −)	0/5	0/5
	Greece[a] (1986 −)	6/9	0/9
	Ireland	5/11	3/11
	Japan	8/13	2/13
	New Zealand	2/14	0/14
	Spain	3/9	2/9
	Sweden (− 1973)	0/2	0/2
	United Kingdom	7/11	1/11
Head of state	Finland (− 1990)	0/6	2/6
	France	3/11	2/11
	Greece (− 1985)	1/2	0/2
	Italy	3/10	4/10
	Portugal	3/11	3/11
Parliament	Austria	3/13	3/13
	Belgium	4/13	2/13
Constrained	Germany	2/11	0/11
	Luxembourg[b]	0/8	0/8
	Netherlands	1/13	5/13
	Sweden (1973 −)	0/10	0/10

(a) The Constitution of Greece (Art. 41.2) states that the President of the Republic "shall dissolve the Parliament on the proposal of the Cabinet which has received a vote of confidence, for the purpose of renewing the popular mandate, in view of dealing with a national issue of exceptional importance." In practice the Greek electoral system favors the creation of single party majorities in parliament, ensuring that the cabinet is composed of a single party. When the cabinet is composed of multiple parties (specifically, prior to the November 1989, April 1990, and post-January 2015 elections), then no single partisan actor can dissolve parliament unilaterally.

(b) The Luxembourgish constitution states in Art. 74 that, "The Grand Duke may dissolve the Chamber [of Deputies]." However, the Grand Duke is effectively a figurehead. Prior to the 2013 dissolution of the parliament over the spying scandal in which the government as a whole requested early elections, there have been no early dissolutions in the post-war era.

chance of entering government following the election than if they were to wait until the parliament ended its mandate. Whether they do or not is an issue I return to in Chapter 5.

There remains, however, the question of what circumstances are likely to produce each type of election. The economic voting literature would predict that a strong economy increases the likelihood that the prime minister's party performs well at the polls, while a weak economy would lead to increased punishment of incumbents. These expected voter responses to the economy produce a set of economic incentives in the timing of elections. Do bad economic times incentivize opposition parties to bring down the government and force and early dissolution? Do premier's capitalize on economic upturns to extend their hold on power? As this chapter began to show, not all oppositions or premiers have equal abilities to bring about elections when the timing is right. The next chapter tackles this question by determining the institutional, political, and economic circumstances under which premier-, opposition, and end-of-term elections are most likely to occur.

CHAPTER IV

Paths to Elections: Who Calls Them (Or Doesn't) and Why?

The endogenous election timing literature finds that the strength of the economy matters to prime ministers when deciding to call an early election (Chowdhury, 1993; Ito, 1990; Kayser, 2006; Lächler, 1982; Smith, 2004). When premiers have the capacity to call elections at will they tend to do so when the economy is on an upswing (e.g. Cargill and Hutchinson, 1991; Chowdhury, 1993; Ito, 1990; Palmer and Whitten, 2000; Smith, 2004). This literature has focused on early elections that are brought about by the prime minister in countries where the premier has significant or sole power to determine election timing.[1]

However, as detailed in Chapters 3, a substantial proportion of early elections in industrialized parliamentary democracies are brought about by actors other than the premier party: opposition-timed elections account for approximately 29% of all early elections. In Chapter 2, I demonstrate that many of the puzzling results in the clarity of responsibility stream of the economic voting literature likely stem from their lack of attention to politicians and can be better explained by election type than by institutional complexity alone. The previous chapter describes the processes by

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[1]Early elections are elections called before the end of the parliament's maximum term. As described in Chapter 3, I consider early elections to be those held more than three months before the constitutionally mandated parliamentary termination.

which the parliamentary elections considered in this study were initiated. In order to better establish the causal mechanism for why the type of election voters find themselves in matters for the magnitude of the economic vote, it is necessary to determine what factors lead to different types of elections. This chapter models the strategic relationship between the lead party and the opposition that determines whether the premier calls an early election, the opposition forces one, or the parliament serves its full term.[2]

In the next section, I expand on the logic set forth in Chapter II arguing that the economic circumstances surrounding the election voters face is the result of strategic choices made by politicians who are constrained by both formal institutions and their limited knowledge of their adversaries' preferences. While the choice to call snap elections is motivated by the state of the economy opposition-timed elections result partly from the prime minister's lack of information about the preferences of other parliamentary parties and risk aversion. In Section 2, I describe the strategic choice model that prime ministers and oppositions face over early elections. Section 3 identifies factors that are likely to enter into the utility functions of the prime minister and the parliament over the three potential outcomes of the election game: premier-timed, opposition-timed, and end-of-term elections. The argument is then tested using a strategic probit model in Section 4. The results support the existing literature's finding that prime ministers who are sufficiently empowered to call elections are more incentivized to do so when the national economy is performing well. When prospects for reelection are bleak, however, there is little that the prime minister's party can do but hope that the opposition is unable or unwilling to force early elections. When the opposition has one of several avenues through which it can bring bring down the government, its decision to do so is weakly contingent on the economy's performance. This is particularly true when an opposition party holds the

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[2]Throughout this chapter, I use "lead party," "premier party," and "prime ministerial party" interchangeably.

office of independently elected head of state with the constitutional power to dissolve parliament at will. Section 5 discusses an alternative estimation strategy and describes steps to be taken to gain additional leverage on the question of what factors lead to different types of elections. The findings of this chapter support the theory of economic voting dependent on election type outlined in Chapter II and are expanded upon further in Chapter V.

4.1 Economics, institutions, and election types

The ability to hold elections when political fortunes are most in one's favor is a valuable asset. The ease with which different actors are able to initiate elections at their desired moments varies considerably across countries and over time. While some countries have fixed election dates (e.g., Norway and the United States), nearly all parliamentary democracies allow for the possibility of elections before the end of the maximum parliamentary term. The endogenous elections literature has focused on a subset of parliamentary countries: the so-called 'premier-timing' countries in which the head of government has a significant or the sole prerogative to determine the timing of elections up to the end of the maximal parliamentary term set forth by the constitution. Within the set of premier-timed countries, economic performance is found to significantly predict the calling of early opportunistic elections, with good economic performance predicting elections in premier-timed countries (e.g. Cargill and Hutchinson, 1991; Chowdhury, 1993; Ito, 1990; Palmer and Whitten, 2000).

Kayser (2006) finds that unexpected economic booms predict early elections in a large sample of premier-timing countries. Further, Smith (2004) finds that when economic performance has been improving for an extended period of time, early elections result in larger vote shares for the incumbent government in the UK, providing evidence that calling elections during an economic upturn does in fact produce electoral benefits. Even within premier-timed countries, however, end-of-term elections

are far from rare with nearly 40% of all elections occurring within three months of the constitutional maximum. Less common, and largely unstudied, are opposition-timed elections.[3] Opposition-timed elections constitute nearly 21% of all elections (and approximately 27% of early elections) in premier-timing countries.

The assumption of office holding as the primary motivator of politicians underlies the economic voting, opportunistic election timing, and political budget cycle theories. Parties in and out of government are assumed to be office-seeking in much of the literature and in the theory developed in Chapter II. While implementing preferred policies is desired, the ability to do so is contingent on first entering the cabinet. The best way to enter the cabinet (as well as end up in a desirable coalition if one fails to gain a majority outright) is to control the most seats in parliament, as the largest party is also the most likely to be named formateur and to control the prime ministership in the resulting government (e.g., Gamson, 1961; Martin and Stevenson, 2001). By holding elections when factors associated with increased (decreased) support for the prime minister's party are present, the prime minister (opposition) can further its office-seeking goal through increased vote and, more importantly, seat shares.

From the prime ministerial party's view, early elections are a trade-off between the certainty of continued rule (the value of which diminishes both as the end of the term nears and as the likelihood of the opposition calling an election increases) and the gamble of another full term in office by calling elections when prospects of a return to office look good (e.g., Balke, 1990; Lupia and Strøm, 1995; Warwick, 1994). If voters respond to a weak economy by voting the rascals out, then incumbent prime ministers ought to call elections before the end of the term when the economy is strong (Chowdhury, 1993) but likely to fall in the near future (Smith, 1996, 2004), and the benefits of continuing in office are small, making early elections more likely further into a parliamentary term (e.g. Lupia and Strøm, 1995; Warwick, 1994).

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[3]Recall that opposition-timed elections are those in which the parliament's dissolution was precipitated by someone other than the prime minister.

The incentives for and against calling early elections are quite clear for the prime minister and her party. The literature's focus on premier-timed countries allows us to look for evidence of opportunism in the cases where the prime minister's ability to act on those electoral incentives is greatest. However, all parties have an interest in the timing of elections. Other parties, either in coalition with the prime minister or in the opposition, would likely choose to hold elections under different circumstances than would the prime minister. Parties in the opposition may anticipate huge swings in their favor when elections are held under bad economic conditions. Junior members of a coalition government may be accountable to voters for a different set of outcomes than are their senior counterparts (Meguid, 2005). For example, after the FDP left its coalition with the SPD to form a CDU-CSU led German government in 1982, the CSU was eager to call elections immediately both to gain an electoral mandate for the government taking the helm during a period of stagnant economic performance and because it anticipated a relative increase in power within the CDU-CSU (Kaase, 1983). This, however, would have been disastrous for the FDP, which was facing significant losses in the polls for abandoning the coalition that they had campaigned as a part of in the 1980 election. Ultimately, the CSU was unable to force an immediate election due to this disagreement in the coalition government and the legal limitations Chancellor Kohl's faced in dissolution, and elections were held off for nearly nine months.

In the most simple case of a two-party system where the parties' electoral and governing prospects are zero sum, a good moment for the government to call an election is by definition a bad moment for the opposition and vice versa. While most early elections are called at the behest of the head of government, the endogenous election timing literature assumes that all early elections in premier-timed systems are evidence of the prime minister's opportunism. However, within premier-timed countries, early elections are sometimes forced on the prime minister by coalition

partners[4], by a breakdown of party discipline,[5] or a simple loss of the parliament's confidence in minority governments.[6] Treating early elections in a premier-timing system as *a priori* evidence of prime ministerial opportunism is therefore problematic.

Looking beyond premier-timed systems to a broader set of industrialized parliamentary democracies, these same incentives exist for both prime ministers and oppositions, but the institutional means by which they can act on those incentives differs markedly. Premier-timing systems are defined as countries in which the prime minister has significant leeway in choosing when parliamentary elections will take place.[7] Many of these countries also tend to produce single party governments, so that the cabinet has similar preferences over the timing of elections because their electoral fates are so strongly tied.[8] They are also characterized by few institutional opportunities for opposition parties to force a parliamentary dissolution. In the parlance of the economic voting literature, these countries have generally high clarity of responsibility. Non-premier-timing countries, however, tend not to privilege the head of government in this way and often empower opposition parties in parliamentary dissolution. In many cases, early dissolutions require broader cabinet agreement (e.g., Belgium), a loss of confidence by the parliament and a failure to invest confidence in a new government (e.g., Germany), or require parliament to approve of its own dissolution (e.g., Italy). Prime ministers in these countries have more difficulty timing elections opportunistically than those in premier-timing systems. These countries also tend to have strong second chambers of parliament, produce coalition and/or

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[4]As in Austria in 1995 when the ÖVP withdrew from the government (Müller, 1996). The coalition agreement between the SPÖ and the ÖVP explicitly tied the parliamentary term to the government's survival. The ÖVP believed that its improved polling after the 1994 election put it in a position to form a government with themselves holding the Chancellorship and the FPÖ as a junior coalition partner. See Section 3.2 for further details.

[5]The Japanese election of 1980 resulted from the abstention of 69 members of the ruling LDP from a vote of confidence brought about by the opposition Japan Socialist Party (Keesing's, N.d.).

[6]The Canadian elections of 1974, 1980, and 2004 were all called when the minority government lost a confidence vote tabled by members of the opposition.

[7]Alternatively, an independently elected president may have this power, as in the case of France.

[8]Often, these are single party majority governments.

minority governments, and have various means for parties outside of government to affect the policies adopted. That is, those countries where opposition parties have more opportunities to influence the timing of elections typically also have lower levels of clarity of responsibility.

The opposition in non-premier-timing systems may have more institutional power to determine election timing than their counterparts in premier-timed countries. Independently elected presidents, such as those in the semi-presidential systems such as France and Finland, have the right to unilaterally dissolve parliament. When an opposition party member controls the presidency, he can use this post to call elections in an effort to bolster his own party's numbers in parliament.

The leaders of coalition and minority governments–the modal forms of government in all of the non-premier-timing countries–are also susceptible to opposition-timed elections through the vote of no confidence. While opposition parties are likely to undertake a vote of no confidence during periods of scandal and government failure, they do so with an eye toward their parties' and the lead party's electoral prospects.[9] Unlike dissolutions orchestrated by a president, parliamentary votes of no confidence require that multiple parties agree that the current moment is an acceptable moment for new elections. This would require, at minimum, that a set of parties controlling a majority of seats each expect the value of elections held immediately to be no worse than the value of elections held at the end of the parliament's term. Given the office-seeking assumption described above, this indicates that parties expect a sufficiently higher likelihood of joining the cabinet following an election held immediately than in one held later to incentivize them to dissolve parliament, net of any expected costs.

The literature's focus on premier-timed elections makes sense given that the government typically holds institutional powers to initiate elections, with many countries allowing the prime minister or the cabinet as a whole to call elections at will (Inter-

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[9]Opposition parties are broadly defined to encompass all parties other than the prime ministerial party.

Parliamentary Union, 2015; Schleiter and Morgan-Jones, 2009). These cases allow for the identification of opportunistic behavior by prime ministers. However, other parties within the parliament may also have means by which to force elections at politically opportune moments. Minority governments must retain the confidence of opposition parties and as such face the threat of early dissolutions if enough of the opposition perceives immediate elections to be in their interests. The Austrian and Italian parliaments must vote to dissolve themselves, while since 1991 the Finnish president had to agree to an early dissolution of parliament, limiting opportunities for prime ministers to engage in opportunism when another party holds the presidency.[10] These avenues for opposition timing of elections may exist alongside other formal and informal institutions that empower the prime minister to dissolve parliament. The ability of parties to engage in opportunism may thus be more widespread within parliament than described by the endogenous elections literature, encompassing a wider set of parties than previously evaluated. Further, the choice to hold an early election is a product of expectations of likely future outcomes: will the economy improve/decline before the end of the term? Is the prime minister (opposition) likely to force elections in the near future during an even worse situation? In the next section I describe a simple model of paths to elections and describe the factors that influence the path ultimately followed.

4.2 A model of elections

Within parliamentary democracies, the decision of when an election is held is inherently strategic. The literature on endogenous elections has typically considered it as a simple choice model in which a prime minister makes a decision to call an early election or to wait until the end of the parliamentary term, illustrated in Figure

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[10]Prior to the constitutional changes of 1991 the independently elected president had the sole power to dissolve parliament and would frequently dissolve parliament early when the cabinet was not agreeable to him (Schleiter and Morgan-Jones, 2009).

4.1. The decision of whether to hold an early election or not comes down to a simple cost-benefit analysis for the prime minister: are the costs of foregoing the remainder of the parliamentary term exceeded by the expected benefits of holding an election now (and presumably winning another full term). This is a special case of early elections in which the prime minister is the only actor who can legally terminate the parliament's term.
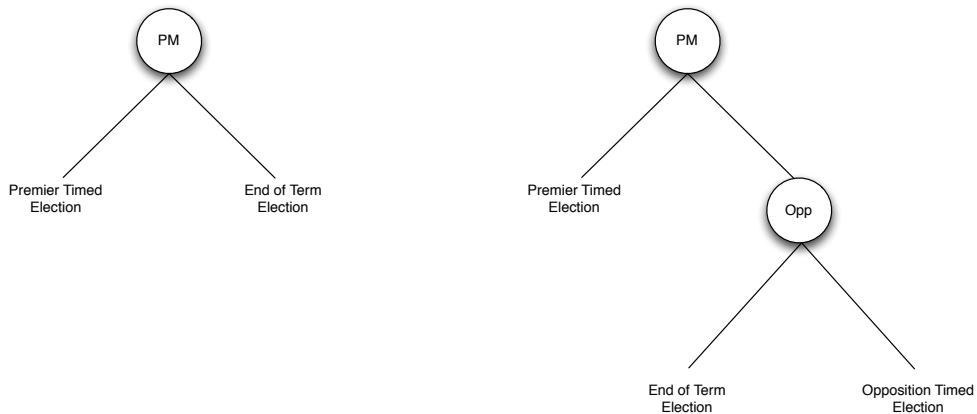
Figure 4.1: Elections as a non-strategic choice

Figure 4.2: Elections as a strategic choice

The general form is only slightly more complex. As depicted in Figure 4.2, the prime minister still has a first mover position and decides whether to call an early election or not. If she decides to call an early election then a premier-timed election is observed. If she decides not to call an early election the opposition has the option of forcing one (leading to an opposition-timed election) or not (resulting in an end-of-term election). The prime minister's choice over whether or not to call early elections is therefore based on her beliefs about the opposition's likely behavior as well as her expectations about her party's prospects in an end-of-term election. It may be better for the government to call an early election rather than face an embarrassing loss of parliamentary confidence, even if waiting until the end of the parliamentary term would be preferred. In many cases, however, it is unclear–even to the opposition itself–if it can stage an opposition-timed election. As described below, opposition par-

ties, broadly defined, face significant impediments to parliamentary dissolution that likely produce significant uncertainty for the prime minister about the opposition's preference for new elections.

As stated above, there is considerable variation in the capacity of both the prime minister and the opposition to bring about early elections. Numerous factors can hinder or empower an actor in its ability to opportunistically time elections. The prime minister is obviously empowered if she is the only actor legally capable of dissolving parliament or simply requires the consent of a non-partisan head of state (such as the British monarch). Institutions requiring the consent of a partisan head of state or the cabinet as a whole (particularly in countries that tend to produce coalition governments) would hinder her (Schleiter and Morgan-Jones, 2009).

The opposition is impeded by coordination problems when there are multiple parties that need to agree on ending the term. If opposition parties' electoral fortunes are differentially affected by economic performance, for example, or some are fairing poorly in the polls, they may be unwilling to bring down the current government because they would be in a worse position after the election than they are currently and that diminished position would stand for another full term. However, opposition parties are empowered by access to other political institutions that have a say in the dissolution of parliament, particularly an independently elected presidency. They are further empowered if the opposition faces a minority government because they do not have to attract members of the governing coalition to end the parliament.

The type of election that occurs in a parliamentary system is not simply a function of the capacity of actors to call elections, but of their incentives to do so. Economic performance does in fact tend to be better in premier-timed election (median unemployment is 1 percentage point below the OECD's average rate) than in opposition-timed (median unemployment 0.05 percentage points above the OECD's average rate) or end-of-term elections (median unemployment is 0.8 percentage points below the

OECD's average rate). As discussed above, the prime minister faces a tradeoff between the certainty of current office and the prospect of another full term. As the maximal term length shrinks the relative value of the remainder of the current parliament is likely to fall when compared to another full term. Thus, premier-timed elections are more likely in the end of a parliament than in its early days (Warwick, 1994). However, when longer parliamentary mandates reduce the value of any fixed unit of time. For example, the final year of New Zealand's three-year term is relatively more valuable than the final year of a parliament in the UK where the maximum term is five years.

Central to this dissertation, a strong economy increases the incentive to call an early election for the premier. Meanwhile, a faltering economy reduces the prime minister's likelihood of returning to office and so reduces her value of the post-election parliament, thereby increasing the incentive for opposition parties to dissolve parliament. Ruling in coalition is likely to reduce the value of both the current government and potentially of governing in a post-election parliament (Warwick, 1994). Coalitions have potentially mixed effects on the incentive to call a premier-timed election. Coalitions reduce the value of ruling today because the prime minister's party cannot implement its ideal policy package, but must instead compromise with the junior coalition partners and provide them with valuable cabinet portfolios. However, if coalitions are common to the country's politics, then the post-election parliament may fail to produce an arrangement of power that leads to a government in which the prime minister is more able to implement her policy goals, and may even result in a less desirable distribution of power. Long-term cooperation within party families may be harmed by calling elections against the wishes of a coalition partner. Further, as coalition size increases, it is likely that future government formation negotiations will be costly, further reducing the incentive to give up today's hard-won cabinet for tomorrow's uncertain and costly one.

Opposition parties do not face the same set of tradeoffs that the prime minister does when deciding to call early elections. The continuation value of the parliament is much lower for parties that lack access to the main tools of policymaking. Since elections are essentially zero sum games in which one party's electoral gains must come at the expense of another party's losses, poor economic performance ought to increase the value of new elections for at least some opposition parties. This incentive, however, should be weaker in more fractionalized parliaments. In politics, a rising tide does not necessarily lift all ships. Some parties are more likely beneficiaries of the lead party's misfortune than others. Those parties that do not receive support from former prime ministerial voters may face worse electoral prospects from an immediate election than they anticipate from one further down the line. Alternatively, they may anticipate a less desirable cabinet forming after the election than the one currently sitting and so prefer to wait for the parliament's expiry. The latter would be most likely for junior members of a ruling coalition who might expect to be punished harshly for abandoning the government or would receive fewer and less valuable portfolios in a post-election government.

The preferences of the prime minister and the opposition over the various types of elections are contingent both on their capacities and their expectations for electoral outcomes under each scenario. The prime minister would prefer an end-of-term election in which she wins to a premier-timed election with the same outcome as it maximizes her time in office. She would prefer a premier-timed election over an end-of-term election with an uncertain outcome. However, an uncertain election outcome is still preferred to an election brought about by the opposition. Parties from the opposition prefer to choose their own election timing to end-of-term elections which are in turn preferred to premier-timed elections.

The capacities that the prime minister and the opposition possess to time elections strategically mediate the effects of any incentives they have to dissolve parliament. It

does not matter how good a party's electoral prospects are today if they have no means of forcing early elections. Hence, these are conditional relationships. In particular, economic performance's effect on election type is dependent on the constraints that the prime minister and opposition face. In the next section I describe the data and method used to test this simple model of strategic election timing.

4.3 Methods and Data

The data generating process described in Section 4.2 does not lend itself to typical discrete choice estimation strategies such as multinomial logit. The strategic nature of the relationship requires alternative modeling choices.

4.3.1 Strategic Probit Estimator

The game described in Figure 4.2 is a strategic discrete choice model. Each player has a choice over two actions and receives a payoff that is dependent on both their own choice and the choice made by their opponent. I follow Signorino (1999, 2003) by considering the election type outcome as a quantal response equilibrium (QRE). QRE assumes that players have bounded rationality–that is it allows them to make mistakes–by assigning a non-zero probability to every possible path, but making the probability of choosing any particular action an increasing function of the expected payoff of that choice (McKelvey and Palfrey, 1998). The extant literature on endogenous election timing assumes that the only elections in premier-timed systems are early elections chosen by the prime minister and end-of-term elections, suggesting that any opposition-timed elections would be off-equilibrium outcomes were we to use a subgame perfect equilibrium concept, i.e., errors on the part of one or both actors. Within the larger set of parliamentary democracies there is reason to believe that prime ministers who are forced into early elections by the opposition are uncertain of the likelihood that a failure to call elections themselves will result in an end-of-term

rather than an opposition-timed election. The non-zero probabilities on each path is what allows us to estimate the effects of our covariates on election timing.

In order to empirically model the relationship, I used the strategic probit estimator developed by Signorino (1999, 2003). The strategic probit model regresses a set of variables that enter the players utilities at the different nodes of the game on the observed discrete outcomes to provide estimates of the effects of the covariates on the utility of the actors for each outcome. Strategic probit requires that the prime minister's utility over all three outcomes shown in Figure 4.2 be explicitly modeled and that the opposition's utility over the opposition-timed election be defined. This estimation strategy uses the QRE framework to estimate the interdependence of the actors in arriving at a particular outcome. The strategic probit model requires that no variable (including the constant) can be included in all utility functions to ensure that the parameters' influence at each node can be identified (Lewis and Schultz, 2003; Signorino, 2003). In order to estimate this model I used the `games` package in `R`.

Signorino (2003) shows that incorrect assumptions about the source of error (i.e., the source of the non-equilbrium outcomes) has important implications for the estimation and interpretation of the standard errors of the coefficient estimates. While incorrectly assuming that errors arise from agent error and private information tend to produce relatively similar standard errors in Monte Carlo simulations, regressor errors (e.g., omitted variables) can produce very different estimated standard errors. Specifically, the signal to noise ratio increases. Because of the relative parsimony of the models presented below, I do not believe that there is much reason to expect particularly large signal to noise ratios. In the models presented below, I estimate errors assuming actors have private information over their utilities for the various outcomes, but results are substantively similar when assuming agent error.[11] Because

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[11]Estimates are available from the author upon request

of the small sample size standard errors are bootstrapped. Finally, I used statistical backwards induction to calculate the starting values for the optimization of the maximum likelihood estimation.

4.3.2 Data

The dependent variable is the type of election that occurred and it is ordered from left to right along the end-points of Figure 4.2, with zero indicating a premier-timed election, one indicating an end-of-term election, and two indicating an opposition-timed election. As described in Chapter III, elections were coded as end-of-term if they occurred within the final 3 months of the maximum parliamentary term; elections categorized as other early elections were combined with the end-of-term elections. Elections held more than three months prior to the end of the term where the prime minister dissolved parliament are coded as premier-timed elections; those early elections in which the prime minister lost a vote of confidence tabled by another party in the parliament, where an opposition party head of state calls early elections, or those otherwise forced on the prime minister are coded as opposition-timed elections.

The `games` package requires researchers to state which variables enter into each players utility function over each outcome. To simplify the analysis I have assigned the prime minister a utility of zero to the default end-of-term outcome. Because there is a specific end date to any parliament, I use this outcome as a baseline utility for the player to evaluate the other outcomes against.

Following the results of both the economic voting and endogenous election timings literatures, I use prior economic performance as a central predictor of premier-timed elections. In order to better differentiate between "good" economic performance and "bad," I use Kayser and Peress' (2012) benchmarked measure of both growth and unemployment. Kayser and Peress (2012) decompose growth and unemployment into global and local components. They argue that voters respond more strongly to

the local component at the polls than to the global one because the local component provides information about the government's performance. The global component then serves as the benchmark against which incumbent performance is evaluated. They find that the principle components measure of the benchmark performs best in predicting the economic vote and so this is the measure used below. If politicians are anticipating that voters respond more strongly to the local components of economic performance than to the global portion, then their utilities over the various types of elections ought to be more strongly predicated on the local components as well. The local components of growth and unemployment are the main indicators of economic activity included in the models, though the global components are also included to guard against omitted variable bias. Given the findings from the meta-analysis in Appendix B, I expect that the local component of unemployment will be particularly important to both the prime minister and the opposition when considering the utility from immediate elections. Furthermore, if performance is very good compared to the benchmark (i.e., unemployment is significantly below or growth significantly above the benchmark) the prime minister has little to gain from calling elections early if she expects this relationship to persist, so at both extremes of the economic performance scale we would not expect premier-timed elections (Smith, 2004).

The relationship between the incentive of economic performance and the dependent variable of election type is mediated by the capacity of the actor to capitalize on economic performance. For premier-timed elections the local growth and unemployment variables are therefore interacted with the prime minister's dissolution powers; for opposition-timed elections I consider the both the ability of the head of state to unilaterally dissolve parliament and whether the opposition holds a parliamentary majority. In order to measure the prime minister's capacity to call elections I include a dummy variable for the prime minister's dissolution powers. This variable is coded 1 if the prime minister can unilaterally or with the consent of a non-partisan head

of state dissolve parliament and zero otherwise. A similar variable coding the power of the president to unilaterally dissolve parliament is also used.[12] Finally, there is an additional variable taking the value of one for minority government. I expect that local economic performance will only affect the likelihood of either type of election when the relevant actor is sufficiently empowered to determine the timing of elections.

I include the maximum term length and coalition size to account for additional costs to the prime minister for early elections. I expect that longer parliamentary terms increase the likelihood of a premier-timed election; more parties in a coalition ought to decrease the incentive to call early elections for the reasons outlined above.

The prime minister's value from an opposition-timed election is likely to be much less than the value of an end-of-term election. While the prime minister may expect the opposition to force snap elections, she is unlikely to call early elections herself as the chance of an inopportune election is better than the certainty of one by calling it herself. I thus expect her utility to be largely unexplained by the covariates. However, since opposition-timed elections are more likely to occur under minority governments and when the head of state can unilaterally dissolve parliament I include both in the prime minister's utility over opposition-timed elections as they are likely to factor into her decisions about calling early elections relative to these.

As argued above, an independently elected head of state with the right to dissolve the parliament unilaterally or a minority government both serve to significantly empower the opposition and be strongly related to its utility over opposition timed elections, as lacking both of these would significantly add to the costs of forcing early elections. The economy ought also to matter, but it will not significantly affect the utility over opposition-timed elections when the opposition does not have the capacity to call elections, i.e., its effect will be mediated by the capacity variables. Due to the consistently weak findings of models that include the domestic component of

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[12]The original data came from Schleiter and Morgan-Jones (2009), Table 1.

Table 4.1: Variable coefficient sign expectations

Premier-timed Elections	Opposition-timed Elections
Unemployment rate (-)	Unemployment rate (+)
Growth rate (+)	Growth rate (- or 0)
PM Dissolution power (+)	Head of state Dissolution power (+)
PM Dissolution X Unemployment (-)	Head of state Dissolution x Unemployment (+)
PM Dissolution X Growth (+)	Head of state Dissolution x Growth (- or 0)
Coalition size (-)	Effective number of parliamentary parties (-)
Minority Government (-)	Minority Government (+)
Term length (+)	Minority government x Unemployment (+)

growth in the opposition's utility as well as the meta-analysis in Appendix B, the analyses below focus solely on unemployment. Finally, I include the effective number of parliamentary parties as a control for the difficulty the opposition faces in coordinating on the timing of early elections when they have the ability to bring them about (Gallagher and Mitchell, 2011). Table 4.1 lists the variables that enter into the prime minister's and the opposition's utilities and their expected signs.

4.4 Results

Table 4.2 shows the results of the strategic probit models. The first and third columns show the full models while the second and fourth show slightly reduced forms in which the interactions between local unemployment rate and the measures of opposition power to dissolve parliament are excluded. The first two columns account for the head of government's capacity to call elections at will in the opposition's utility over opposition-timed elections while the latter two instead consider the impact of majority oppositions/minority governments.

Table 4.2 is divided to show the utilities of the government and opposition over the outcomes, depicted in Figure 4.2. The top block of coefficients show how the prime minister's utility over a premier-timed election is affected by changes to the electoral context. The second block provides the same information about how an additional

Table 4.2: Strategic Probit Model of Election Type

PM Utility$_{PremTimed}$	(1)	(2)	(3)	(4)
Local Unemployment	0.160	0.131	0.189	0.178
	(0.164)	(0.125)	(0.311)	(0.319)
Local Growth	0.059	0.055	0.002	-0.005
	(0.164)	(0.169)	(0.159)	(0.169)
PM Dissolution Powers	1.747**	1.687***	1.474*	1.429**
	(0.587)	(0.431)	(0.710)	(0.479)
Local Un*PM Dissolution	-0.383*	-0.298**	-0.300*	-0.320**
	(0.158)	(0.106)	(0.140)	(0.122)
Local Grow*PM Dissolution	0.005	0.009	0.061	0.061
	(0.225)	(0.178)	(0.190)	(0.188)
Global Unemployment	0.103†	0.107†	0.107†	0.107†
	(0.062)	(0.057)	(0.062)	(0.059)
Global Growth	-0.041	-0.028	-0.031	-0.032
	(0.113)	(0.089)	(0.082)	(0.074)
Term Length	0.688†	0.668*	0.808*	0.820*
	(0.380)	(0.297)	(0.324)	(0.350)
Coalition Size	-0.340	-0.309†	-0.212	-0.191
	(0.216)	(0.181)	(0.236)	(0.214)
Intercept	-2.110	-3.060†	-2.745	-1.203
	(3.367)	(1.728)	(3.842)	(5.132)
PM Utility$_{OppTimed}$				
Head of State Dissolution Powers	-15.968	-10.983	-0.420	0.349
	(21.250)	(24.565)	(9.620)	(8.100)
Minority Government	1.613	2.051	-5.630	-11.551
	(4.155)	(2.642)	(18.846)	(19.376)
Intercept	19.901	11.502	15.259	27.301
	(28.192)	(11.321)	(24.479)	(30.218)
Opposition Utility$_{OppTimed}$				
Local Unemployment	-0.079	-0.109†	-0.040	-0.026
	(0.071)	(0.055)	(0.106)	(0.083)
Head of State Dissolution Powers	1.064	1.709*		
	(1.703)	(0.693)		
Local Un*HoS Dissoloution	0.151			
	(0.661)			
Minority Government			0.415	0.500
			(1.067)	(0.605)
Local Un*Minority			0.027	
			(0.111)	
Effective No. of Parties	-0.148	-0.291	-0.064	-0.033
	(0.252)	(0.180)	(0.183)	(0.207)
Intercept	-1.173	-0.670	-1.265	-1.409
	(0.901)	(0.708)	(0.788)	(0.915)
N	182	182	182	182
Log-Likelihood	-146.975	-147.405	-151.548	-151.731
AIC	329.950	328.811	339.096	337.462

† indicates significance at the 0.10 level, * significance at the 0.05 level, ** significance at the 0.01 level, *** significance at the 0.001 level. All tests two-tailed.

set of covariates affects her utility over an opposition-timed election. The third block shows how context affects the opposition's utility over an opposition-timed election. The models are somewhat sparse, with covariates that could be included in multiple nodes, but add little explanatory power in some of those nodes, dropped. This is done because estimates of strategic probit models can be quite sensitive in larger models to the inclusion of the same variable at multiple nodes in the game.
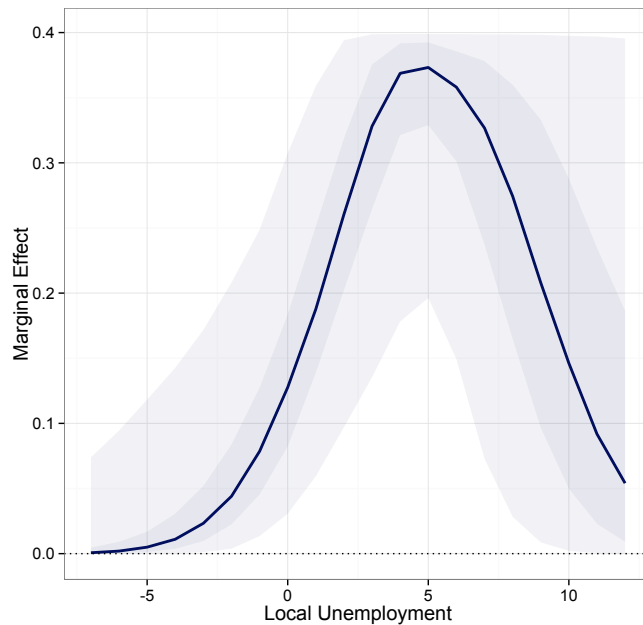
Figure 4.3: Predicted probability difference of prime ministerial dissolution powers as local unemployment changes.

As expected, local unemployment and growth both fail to predict premier-timed elections when the premier is constrained in her ability to call elections. The ability to call early elections is a positive and significant predictor of premier-timed elections when growth and unemployment are at the international benchmark level (i.e., when the local components take on a value of zero). The coefficient on the interaction term between prime ministerial dissolution power and local unemployment is negative and significant in all models. This suggests that when the prime minister has the power to unilaterally dissolve parliament, she is even more likely to do so when

national unemployment is outperforming the OECD's average rate of unemployment, as expected. The interaction with the local component of growth is positive but indistinguishable from zero and has no substantive effect at any level of growth on the predicted likelihood of a premier-timed election. Higher rates of global unemployment produce higher utilities from premier-timed elections at a marginally significant level, while higher global growth rates reduce the utility to the premier of early dissolution. These coefficients suggest that prime ministers may call (or hold off on) elections based on international trends: when the international economy is performing poorly, it might be prudent to go to the polls before its full effects are felt domestically, whereas when the international economy is rising, the prime minister may hope that a rising tide lifts her boat as well and delay elections. As expected, longer parliamentary terms increase the likelihood of holding premier-timed elections at the 0.10 level in all models, while larger coalitions decrease their likelihood, though only at a statistically significant level in the second model.

In order to better understand the interdependent relationship between local unemployment and the prime minister's dissolution powers on the prime minister's decision to call early elections, Figure 4.3 shows the difference in the predicted probabilities of a premier-timed election when moving from a constrained prime minister to a prime minister with strong dissolution powers, using the model found in column 2. Results are substantively similar using the estimates in column 1. The x-axis shows the local component of the unemployment rate. The line indicates the average predicted predicted probability difference for a prime minister who can unilaterally call an election compared to one who cannot for 1,000 draws from a multivariate normal distribution; the inner light-blue band indicates the middle 50 percent of observed effects for those draws; and the lightest blue band indicates the central 95 percent of estimated values. For computational purposes the values of the other variables in the model are held at zero. Recall that negative numbers mean that national unemployment is lower than

the international trend in unemployment and so indicates better performance.

When unemployment is far below global levels, an empowered prime minister has no incentive to end her term early since her party is very likely to win now and into the future, and so behaves similarly to a constrained prime minister by not calling elections. Similarly when the economy is fairing very poorly (when unemployment is much higher than the international benchmark) an election is unlikely to be initiated by the prime minister regardless of the institutional freedom she possesses. As unemployment moves from slightly better than the benchmark to somewhat worse that the rest of the OECD, the probability of an empowered prime minister calling election increases significantly over her constrained counterpart. This is evidence of the type of opportunistic election timing we would expect. It is when the economy is performing at a somewhat middling level, the effects of institutions become most clear. When electoral victory (or defeat) is certain, there is little incentive to lose the opportunity to continue ruling, regardless of whether or not one has the legal right to head to the polls. However, when one is likely facing the last best opportunity in the term to go to the polls, the capacity to do so has substantial effects.

Considering the second block of results, none of the variables used to predict the prime minister's utility over opposition-timed elections turned out to be significant in any specification. This suggests that these elections are a result of strategic errors by the prime minister. There is no reason to expect the prime minister to ever want an opposition-timed election because it is specifically timed to harm the prime minister's party. One can imagine that given the inopportune circumstances under which a prime minister is likely to face an opposition-timed election, there would be few better alternatives than rolling the dice to see whether the opposition is able and willing to dissolve parliament rather than let the full term expire. The unique factors that are likely to identify this outcome are more likely to show up in the opposition's utility, to which we now turn.

The opposition's utility from an election it chooses are largely explained by its capacity to call elections. In column 1 the effect of higher than international rates of unemployment is to decrease the utility of opposition-timed elections for the opposition when the head of state cannot unilaterally dissolve parliament, though this coefficient is statistically insignificant. However, the head of state's capacity to dissolve parliament has the expected positive effect when the local unemployment rate does not differ from the international baseline (i.e., local unemployment is zero), but it too is statistically insignificant. The interaction between local unemployment and the head of state's dissolution power is positive, indicating that as the national unemployment rate rises compared to the global benchmark the likelihood of an opposition-timed election increases. While this relationship is in the expected direction, unfortunately, it too is statistically insignificant. Due to the limited number of opposition-timed cases, the interaction term may be spreading the data too thin, hindering our ability to detect any relationshipo between these variables and the choice of election type.

Column 2 omits the interaction between head of state dissolution power and the local component of unemployment. It shows that the ability of the head of state to dissolve parliament significantly and substantively reduces the likelihood that the end of the parliamentary term will be reached, i.e., there is a much higher likelihood of opposition-timed elections. Unexpectedly, higher national unemployment has a negative and marginally significant effect on the utility of opposition parties over opposition-timed elections. Given the results in model 1, this may be due to the omission of the interaction term rather than the true effect on incentives to force early elections for the opposition. More parliamentary parties increases the likelihood of an on-time election. In numerous specifications, the interactive relationship between the head of state's dissolution powers and local unemployment generally fails to reach statistical significance, though they tend not to be in the expected direction.

Models 3 and 4 present results when minority government is used to measure

the opposition's capacity to initiate early elections. Model 3 includes an interaction between the local component of unemployment and minority government status, while the model in the last column omits this interaction. The presence of the minority government never has a significant effect on the opposition's utility over opposition-timed elections, though the coefficients on both minority and its interaction with local unemployment are signed in the expected direction. This suggests that the various costs, particularly the number of parties that need to coordinate on the timing of an election, overwhelm the strength in numbers the opposition holds. Finally, in all models the coefficient on the effective number of parliamentary parties is negative but fails to each standard levels of statistical significance.

Overall, these results support for the theory put forward in this dissertation. The opportunities and incentives that parties both in and out of government face to call early elections determine the dynamics of election timing. In particular, the prime minister's behavior is strongly shaped by the unemployment rate when she has the constitutional right to unilaterally dissolve parliament. Opposition-timed elections are most strongly affected by access to a means of forcing early elections with some evidence that higher unemployment makes this type of early election less likely, though a majority opposition has no significant effect on the opposition's ability to call an early election.

4.5 Discussion

While the tests above model the dynamics of the strategic interaction between premiers and oppositions, they are also limited in their ability to account for the repeating nature of this interaction over time. The interaction described above addresses how politicians, anticipating the behavior of others, respond to the incentives and capacities to go to voters at a particular moment in time or face potentially worse outcomes beyond their control. However, the strategic probit model does not

allow for repeated interactions between these actors over time. Prime ministers and oppositions choose daily whether or not to head to the polls, evaluating the expected benefits and costs of waiting versus going. Most days, both sides choose not to initiate elections and instead continue with the work of governing. Thus, the options faced by parties are to call an election today or not, knowing that a failure to do so may result in the parliament's early dissolution by others or time running out when circumstances are not favorable.

Given this alternative view of a repeated interaction between incumbents and oppositions, a competing risks event history framework could be employed in future research to provide clarification of how politicians arrive at different types of elections. The competing risks framework examines the likelihood of a parliament experiencing dissolution in any given period. Unlike traditional event history models, this competing risks models allow for the parliament to experience 'death' due to multiple, mutually exclusive causes (Andersen, Abildstrom and Rosthø, 2002; Fine and Gray, 1999; Gandrud, 2014; Putter, Fiocco and Geskus, 2007). In any period T a parliament is at risk of being dissolved due to one of $C > 1$ causes. In our case, there are two potential causes of dissolution: premier-timed and opposition-timed elections. If the parliament ends in a premier-timed election, we cannot directly observe its simultaneous risk of an opposition-timed election because that parliament cannot end in multiple ways–the outcomes are mutually exclusive. Drawing on the notation in Bakoyannis and Touloumi (2012), in order to find the jth cause-specific hazard in period t, we must solve

$$\lambda_j(t) = \lim_{h \to 0} \frac{\Pr(t \leq T < t + h, C = j | T \geq t)}{h} \tag{4.1}$$

This represents the instantaneous failure rate from cause j in period t given the other potential causes of failure. If d_{ic} is the indicator that subject i has failed from cause c and t_i is the minimum event failure time or censoring of the subject, the

likelihood function for hazard parameters β under independent right censoring is:

$$L(\beta) \propto \prod_{c=1}^{k} \prod_{i=1}^{n} \lambda_c(t_i; x_i, \beta)^{d_{ic}} \exp\left[- \int_0^{t_i} \lambda_c(u; x_i, \beta) \mathrm{d}u \right] \tag{4.2}$$

The probability of failure from cause j before time t when all other causes of failure are present is the cumulative incidence, and defined as a function of the cause-specific hazards for all causes of failure:

$$F_j(t) = \Pr(T \leq t, C = j) = \int_0^t \lambda_j(u) \exp\left[\int_0^u \sum_{c=1}^{k} \lambda_c(w) \mathrm{d}w \right] \mathrm{d}u \tag{4.3}$$

Unlike other means of estimating hazards of failure when there are multiple means of failing, the competing risks estimation method focuses solely on observables in the data, and does not require untestable assumptions.[13]

Beyond providing a means to addressing the alternative of continuing the parliament, a competing hazards model would allow for me to test additional implications of the theory developed in this dissertation. In particular, it would allow the examination of questions about the effects of time remaining in office on the likelihood of parliaments ending by premier- or opposition-timed elections and examine the possibility of "missed" opportunities. This type of analysis is not possible with the dataset used in this chapter, for which the unit of analysis is the country-election. While each observation contains information about previous economic and electoral outcomes, its current structure does not allow for a decision to go to the polls to occur at any earlier moment.

I am currently creating a dataset organized at the parliament-quarter level that will allow me to model the competing risks parliaments face from premier- and

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[13]Alternative models assume latent failure times for each type of possible failure. Unfortunately, neither the joint distribution of failure times nor corresponding marginal distributions can be identified from the data without untenable assumptions for this application, such as the different latent failure times being independent. See Bakoyannis and Touloumi (2012), Prentice et al. (1978), and Putter, Fiocco and Geskus (2007) for more details.

opposition-timed elections. Each quarter in which the parliament is convened it risks dissolution from either a premier-timed, opposition-timed, or end-of-term (censored) election. The new dataset requires quarterly observations on all other relevant variables, such as economic performance, and coalition and minority government status. Quarterly economic data, particularly for unemployment rates, has been difficult to gather for the full set of parliaments included in this dissertation. Upon completing its collection, this data will also permit the use of finer grained lag structures on the economic variables to determine how changes in the trajectory of the economy affect the likelihood of different types of elections being called.

It is important to note, however, that the competing hazards model does not account for the strategic component of the choice to go to the polls early. Unlike the strategic probit model used above, competing risks event history models do not allow the observed outcome to be a function of the likelihood of failure by alternative means in the future. The strategic probit model explicitly includes the value of other outcomes to each actor in their utility over the option at hand; the competing risks framework allows us to evaluate the likelihood of one outcome given that the other outcome has not occurred, but, because it is not a decision theoretic model, cannot include the type of strategic behavior inherent in the timing of elections. The use of both the competing risks model with the existing strategic probit model will improve our understanding of the findings above and provide additional insights in the factors that lead to different types of elections being held.

4.6 Conclusions

The findings of this chapter support the theory that the factors that lead to premier-timed, opposition-timed, and end-of-term elections differ significantly. The motivations and constraints that actors face in pursuing their electoral goals lead to systematically different types of elections. Premier-timed elections are more likely

to occur during relatively good economic times and within a context of a strong prime minister upon whom voters focus accountability. The presence of a head of state with the constitutional prerogative to dissolve parliament is the most significant factor in opposition-timed elections. Opposition-timed elections are likely to occur in less fractionalized parliaments (again, implying easier accountability) but under more dire economic circumstances. Unemployment in particular seems to be the key to understanding what drives *all* types of early elections.

This chapter goes beyond the current endogenous election timing literature's focus on the most likely cases by considering how numerous partisan actors use the opportunities afforded them to engage in opportunism through early elections. It uses novel data on election types within industrialized democracies to evaluate how the strategic interaction of government and opposition produces the different electoral contexts that voters face at the polls.

Chapter V examines the next step in the sequence described in Chapter II to determine if these attempts at opportunism really work: do prime ministers who choose their own election date fare better at the polls and increase their probability of a return to government? Are those who run in opposition-timed elections more likely to lose office? Initial evidence from Samuels and Hellwig (2010) suggests that this opportunism doesn't pay off: prime ministers competing in premier-timed elections in high clarity of responsibility contexts experience a negative and significant economic voting effect on partisan retention of the cabinet, while those facing all other early elections experience a positive economic voting effect. This work, however, does not to address the relationship between clarity of responsibility and the type of election voters face. As shown here, voters are likely to be in the midst of very different economic contexts when an election is called on time, by the prime minister, or by the opposition. In Chapter V I estimate the economic vote as a function of the strategic choice over election timing examined here.

CHAPTER V

Strategically Timed Elections as a Causal Mechanism for the Economic Vote

This chapter builds on the findings in Chapter IV that the institutional and economic circumstances surrounding elections held at the end of a parliamentary term differ from those called early by either the premier or the opposition. Premier-timed elections are called when prime ministers have significant institutional powers to unilaterally dissolve parliament and unemployment is low, while opposition-timed elections are called when unemployment is high and heads of state are able to call elections on their own. That the circumstances in which these elections occur ought to differ is premised on the idea that voters will treat incumbents differently at the polls when the economy is performing well than when it is struggling. Because voters punish incumbents for a poor economy, a prime minister will not call for an early dissolution of parliament during an economic downturn, but is likely to do so when the economy is strong to avoid punishment; likewise, opposition parties–expecting to benefit from the incumbent government's losses–are likely to force a dissolution when the economy is performing poorly if they have the political and institutional capacities to do so.

What is left to be seen is whether these actions produce their desired results. Do incumbent governments perform better at the polls when they choose the timing of elections themselves? Are they punished more harshly when elections are forced

upon them by opposition parties? Are they more (less) likely to retain the post of prime minister in premier (opposition) timed elections? This chapter answers these questions by considering the direct and indirect effects of the economy on election outcomes. The goal is to establish the mechanism through which the economy affects election outcomes in parliamentary countries. Building on earlier findings in this dissertation, I argue that the economy has a strong indirect effect on election outcomes through the strategic timing of elections in addition to any direct economic voting effects. In doing so, I challenge the assumption in the economic voting literature that the way the economy matters in election outcomes is solely through its effects on voters' evaluations of incumbents. Instead, I show that much of the economy's effect on election outcomes works through the incentives of incumbent and opposition politicians to strategically call elections, particularly with respect to the prime minister's retention of office.

Below, I describe the expectations and hypotheses for the direct and indirect effects of the economy on three measures of electoral performance: incumbent prime ministerial vote share, incumbent prime ministerial seat share, and retention of the prime ministership. I then present the data and methods used to test these hypotheses before turning to the results. An alternative theoretical mechanism in which the type of election acts to modify the relationships between the economy and election outcomes is pitted against the theory of a mediated relationship posited above is also tested. The final section draws conclusions about both the various effects of the economy on electoral outcomes and how successful political parties are in securing political power through manipulation of election timing. There is strong evidence that the economy has a positive and significant effect on every measure of electoral outcomes through its effects on the type of election held.

5.1 Direct and indirect effects of the economy on election outcomes

The previous chapter described a model in which the state of the economy interacts with the political powers of the prime minister and the opposition to produce elections that are held early or at the end of the parliamentary term. The theory developed in this dissertation is premised on the idea that early elections are called at moments that are particularly advantageous for the actors who precipitate them. More specifically, they are called under circumstances that maximize their likelihood of gaining a place in the cabinet and, ultimately, holding the role of prime minister. Previous work has shown that parties with larger seat (e.g. Gamson, 1961) and vote (e.g. Baron, 1993; Sened, 1996) shares are more likely to end up controlling the post of prime minister. In this section, I describe the expected relationships between economic performance, election type (end-of-term election, premier-timed early election, or opposition-timed early election), and three measures of electoral success: capturing the prime ministership following the election, maximizing seat share, and maximizing vote share.

Much of the economic voting literature has focused on how economic performance affects changes in the lead party's vote share (e.g., Duch and Stevenson, 2008, 2013; Lewis-Beck, 1988; Powell and Whitten, 1993). This is due to its focus on how *voters* respond to economic stimuli. Since voters directly affect the percentage of total votes a party receives, this was the correct level on which to focus. However, this dissertation argues that the focus ought to shift to evaluating elite goals and behavior. Voters are assumed to respond to the state of the economy, but to care little about whether the incumbent is responsible for that performance. Instead, voters can make their choices at the ballot box based on the simple heuristic of the economy, punishing incumbents during downturns and failing to punish (or even rewarding them) during

upturns. While party elites are likely interested in the percentage of votes that they receive from the citizenry, these votes only matter to the degree that they help them achieve more the pertinent goals of cabinet entry and prime ministerial control. If an election today results in a lower vote share but a higher probability of (re-)entering government, it would still be optimal from the viewpoint of politicians in this model. Recent work considering elite strategy and economic voting by Hellwig and Samuels (2008) and Tavits and Schleiter (2014) consider not only vote share, but seat share and retention of the prime ministership as well. By entering government, parties receive significantly more benefits than by simply entering parliament. Parties in cabinet are better able to pursue and implement preferred policies and have access to perks of office not available to opposition parties. The cabinet post of prime minister tends to have some additional powers beyond those of other cabinet ministers (e.g. Laver and Shepsle, 1994), and the prime minister's party is also likely to control some of the other important portfolios, such as the finance ministry (Warwick and Druckman, 2001), making the premiership even more attractive. Entering government and controlling the office of prime minister are both positively related to a party's seat share in parliament, which in turn is positively related to a party's vote share. The degree to which election type and the economy have independent effects on the success of an incumbent will vary by how success is measured. I turn to these expected relationships below.

5.1.1 Prime Minister's Vote Share

While entering government–or even better, holding the post of prime minister– is the ultimate goal of most political parties,[1] this goal is easiest to achieve when a party can claim an electoral mandate by receiving the most votes. In countries with effective two-party systems, receiving the most votes tends to produce a parlia-

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[1]While there are some parties that are anti-system, they tend to be the exception to the rule of office-seeking parties that want to enter government under the current set of institutions.

mentary majority which ensures that party sole control over government.[2] Countries with multiparty system tend not to produce parliaments in which a single party controls a majority of seats. However, the largest party tends to be invited to act as *formateur*, increasing the likelihood of that party eventually ascending to the premiership (e.g. Ansolabehere et al., 2005; Warwick and Druckman, 2006).[3] Moreover, most of the literature examining the economic vote has focused on voting and vote share due to its assumption that voters are the relevant actors to examine. While this dissertation treats voter support as incidental to politician and party goals, large gains (losses) in votes provides parties with increased (decreased) bargaining leverage in the government formation process. As such, the share of votes the prime minister's party received is a good starting point to understand the degree to which the economy and the type of election affect the electoral success of incumbents. Though opposition-timed elections are expected to help opposition parties, in most cases precisely which parties among the opposition we would expect to benefit at any level of analysis is unclear. However, because the ultimate goal is changing the identity of the prime ministerial party, focusing on the outcome for the incumbent prime minister's party, which is expected to be inversely related to that of the opposition, is a best approximation. While the type of election voters find themselves in is likely to be correlated with economic performance, economic performance's independent effect on the outcome ought to be stronger for vote share than for either of the other dependent variables. To the extent that an election is held for a reason orthogonal to the economy, we would expect vote share to have the most direct relationship to the economy. Below I describe the expected relationships between incumbent's vote share and the

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[2]Of course, these systems tend to also have large distortions from a one-to-one relationship between votes gained and seats allotted, meaning that sometimes the largest vote-getter does not gain a majority–or even a plurality of–seats in parliament.

[3]Multiparty systems tend to see a stronger correlation of vote share to seat share, though the degree of proportionality varies by the particular electoral formula used (Gallagher and Mitchell, 2011). Further, the rules of government formation sometimes give priority to the incumbent prime minister to act as a first *formateur* regardless of their vote or seat share.

mediating variables of election type as well as the economy's direct effect.

Premier-timed elections are more likely to be those in which the prime minister expects her party to have the best chance of retaining government power. Retaining power depends on myriad factors such as the electoral performance of potential coalition partners and norms of formatuer choice, but the ability to claim an electoral mandate will provide strong pressures on the parliament to form a government including the incumbent. To the extent that the expectation of retaining power is driven by beliefs about her party's vote share, premier-timed elections ought to return higher vote shares for the incumbent prime minister than other types of elections.

Hypothesis 9. Premier-timed elections result in higher vote shares for incumbent prime ministerial parties than both end-of-term and opposition-timed elections.

Opposition-timed elections are forced when the incumbent prime minister's party is most likely to lose its leading position within government. Opposition-timed elections are called when the incumbent prime minister is in a weakened electoral position. The hope of replacing the incumbent or having a stronger bargaining position in a new parliament is the underlying cause of the opposition's decision to force early elections. Parties outside the government derive far fewer benefits from the existing parliament than do parties represented in the cabinet, facing a less complex decision regarding the relatively certain present parliament and the expected value of an uncertain parliament following immediate elections. Opposition parties will call elections when they can expect to gain substantial vote share; since the prime minister's party receives attribution for the country's performance, many of the new votes to the opposition are likely to come from the prime minister's party

It is important to note that parties in coalition with the lead party face additional

costs when considering initiating early elections. Junior members of cabinet have policymaking capacities in their ministries and access to other perks of office that they may lose access to. Further, upon leaving the government, the prime minister's party may be unwilling to enter into new governing agreements with that party in the future, worsening the party's long-term governing prospects. These parties may also fear blame from voters for withdrawing from their agreement and bringing down a government, though there is little evidence that those who are likely to cast blame for an early election on such a party would vote for it in an election anyways (Blais et al., 2004).

However continuing to support the government may entail significant electoral costs as well. Junior members of a coalition government are often forced to support policies disliked by their base that may harm them in future elections. This problem of 'selling out' could be a substantial problem for niche parties, particularly in systems with high thresholds for entry into parliament (e.g., Meguid, 2005). The costs that junior members of a coalition government face in the cabinet can be quite high, which makes supporting an opposition-timed election more attractive. If faced with losing representation in future parliaments and/or the potential to form alternative attractive governments, junior coalition members may support an early election that harms their current government partners.

To the extent that the incumbent's vote share is associated with both seat share and the likelihood of retaining or losing the prime ministership, opposition-timed elections ought to be associated with lower incumbent vote share than other types of elections.

Hypothesis 10. Opposition-timed elections are associated with lower incumbent vote share than both end-of-term and premier-timed elections.

Again, to the extent that opposition-timed elections are driven by factors other

than the economy, the economy may have additional indirect effects on vote share. In fact, because the state of the economy is a relatively weaker predictor of opposition-timed elections than it is of premier-timed ones, the direct effects of the economic vote ought to be stronger in opposition-timed elections. Along the lines of Smith (1996, 2003, 2004), if voters interpret opposition-timed elections as a signal of a down economy's imminent upturn, then one would expect that any residual effect of the economy would be to increase the incumbent's vote share. Since economic performance in the period preceding opposition-timed elections are worse, on average, than other types of elections, the relationship will be negative.

End-of-term elections do not convey expectations of election outcomes in the consistent manner that elections called early by the opposition or prime minister do. The set of end-of-term elections contains elections in which the incumbent can expect to win, the incumbent can expect to lose, partisans were constrained in their capacity to call elections, and those in which results were highly uncertain to the actors fighting campaigns. Thus, the election type ought not predict incumbent vote share very well. Because hypotheses 1 and 2 are defined in reference to end-of-term elections, with vote shares for incumbents highest in premier-timed elections followed by end-of-term elections, and lowest in opposition-timed elections.

However, the economy ought to have the strongest direct effect in end-of-term elections. Because the indirect effect of the economy through the calling of an election is expected to be nil, the economy's direct effect on vote share ought to be strongest in this type of election. This reasoning is in line with extant descriptions in the economic voting literature where voters are holding politicians accountable (Duch and Stevenson, 2008) or punishing them (Powell and Whitten, 1993), both of which are built on the idea that elections are exogenous events, an assumption that can only be true for on time elections. Better economic performance ought to increase

the incumbents vote share (and vice versa) after accounting for the presence of an end-of-term election.

Hypothesis 11. The effect of the economy, net of its effect on the decision to hold an end-of-term election, on incumbent prime ministerial vote share is positive.

Direct effects of the economy – those effects that do not work through their implications for the type and timing of elections – may also vary by election type. Although prime ministers or opposition parties may call early elections because they anticipate economic voting to drive the election's outcome, we cannot state *a priori* that the economy hasn't any addition direct effects on incumbent support. The literature posits two potential directions for the direct effect on the economy on incumbent vote share in premier-timed elections. In his examination of early elections in the UK, Smith (1996, 2003, 2004) argues that voters understand early elections to signal the incumbent's expectations of a future economic downturn, leading them to discount recent economic performance in their voting calculus. If voters facing either type of early election understand politicians to be calling elections opportunistically. Then we would expect economy's effect on vote share net of its influence over the presence of a strategically-timed election (premier- or opposition-timed) to be negative.

Hypothesis 12. The effect of the economy, net of its effect on the timing of elections election, on vote share is negative.

Alternatively, to the extent that the choice to hold an election is driven by non-economic factors, the standard economic vote ought to still hold. If the election was called for some reason unrelated to the performance of the economy and voters engage in naïve economic voting, then the economy's direct effect on vote share may be positive.

Hypothesis 13. The effect of the economy, net of its effect on the timing of an election, on vote share is positive.

5.1.2   Prime Minister's Seat Share

While the prime minister's retention of (or ouster from) her office is likely to be the main motivator for calling early elections, this endeavor is aided by winning the most seats following the voters' return to the ballot box. In highly proportional electoral systems, increased vote shares will translate more or less directly to increased seat shares. As the electoral system becomes increasingly disproportional, the relationship between votes and seats becomes uncoupled. To the extent that the decision to hold an election is based on expectations of the number of seats a party will gain after the votes are counted, then election types ought to better predict incumbent seat shares than vote shares. The pursuit of the premiership is better achieved by maximizing seat share than by simply attempting to improve overall vote share. Gamson's law suggests that parties with more seats are more likely to become the lead party in a government (Gamson, 1961). Since total seat share (like vote share) is bounded, any party's gains come at the expense of another party. As such, I use of the prime minister's seat share as an additional measure for the success of strategic election timing.

Premier-timed elections   are called with the intent of maximizing the likelihood of the prime minister continuing to hold office. Since the prime minister can expect higher seat shares to improve her chances of holding onto power, premier-timed elections ought to be associated with higher incumbent seat shares than other types of elections.

Opposition-timed elections, on the other hand, are expressly timed to harm the prime minister's prospects of retaining power. Opposition-timed elections then ought to be associated with lower seat share for the prime minister's party than other types of elections.

Hypothesis 14. Premier- (opposition-) timed elections result in higher (lower) seat shares for incumbent prime ministerial parties than other types of elections.

The economy's direct effects on seat share ought to be weaker than those found for vote share. While the literature on economic voting produces expectations of positive (e.g., Powell and Whitten, 1993) and negative (e.g., Smith, 2004) relationships between the economy and support for the incumbent, the theories focus on voters. In countries where electoral system disproportionality is low, the relationships predicted about the economy's direct effects on vote share ought to carry over to seat share. However, because disproportionality varies across countries and over time, this relationship ought to be weaker than the relationship for vote share.

Hypothesis 15. Any direct effects of the economy on seat share will be in the same direction, but of smaller magnitude, than on vote share.

5.1.3 Prime Minister's Retention

The ultimate goal of most political parties is to ascend to the office of prime minister following an election. This is particularly true for the party currently controlling the office and its largest competitor in parliament. Both the prestige and policy-making powers of the office make its retention a particularly important measure of the incumbent's electoral success. As politicians focus their efforts on attaining the prime minister's office and voters largely focus their attributions of responsibility on

the lead party, the decision to hold an election ought to be driven by and related to the subsequent government's leadership (Duch and Stevenson, 2008). A failure to find a mediating relationship between election type and prime ministerial retention would be significant challenge to the theory posited in this dissertation.

Premier-timed elections trade off the relative certainty and value of rule in the current parliament against the uncertainty of both future economic performance and (the related issue of both potential current and future) electoral outcomes (Warwick, 1994). Incumbent prime ministers have much to lose in a poorly timed election and so are expected to call one at the "last best opportunity" (Smith, 2004). Prime ministers call elections when they cannot reasonably expect a more opportune moment for an election to materialize during the remainder of the parliament's term and when the expected value of another term exceeds the value of the remainder of the current one. Should a prime minister call an election before the parliament has reached its maximum term length, this logic leads to the expectation that the likelihood of that individual leader retaining the office of prime minister is significantly higher than in end-of-term or opposition-timed elections (e.g. Kayser, 2006; Smith, 2004).

Hypothesis 16. Premier-timed elections are more likely to result in the prime minister retaining her office than are other types of elections.

Opposition-timed elections entail far fewer trade-offs for opposition parties than premier-timed elections do for lead parties. Parties outside of government have some means of influencing policy, but generally derive far fewer benefits from the current parliament than do cabinet members, and particularly less than the prime minister's party (e.g., Powell and Whitten, 1993; Strøm, 1990). As such, the value of ruling in a new parliament can generally be thought to exceed the value of the status

quo. However, if the opposition calls an early election and is wrong in its estimates of the incumbent's likelihood of success they could face another full parliamentary term with an unfavorable government. Opposition parties must be relatively sure of their electoral success (or the prime minister's party's electoral failings) to call early elections.

As discussed above, junior parties in a coalition government face a complex trade-off when considering supporting an opposition-timed election. Junior partners of a ruling coalition are only likely to support an opposition-timed election when the incumbent prime minister's likelihood of returning to power are very low (thereby avoiding punishment during coalition negotiations immediately following the election) and when they can expect either to benefit from the new government (e.g., the most likely lead party is more ideologically similar to the junior partner on pertinent dimensions than the current premier's party) or to face severe (electoral) costs by continuing with the coalition.

The logics of both junior partners of a coalition and opposition parties suggest that only when the incumbent is not expected to retain the prime ministership that opposition-timed elections will be called.

Hypothesis 17. Opposition-timed elections have a lower likelihood of incumbent prime ministerial retention than other types of elections.

End-of-term elections are unlikely to strongly predict the prime minister's retention. Similar to the logic described for end-of-term elections' effects on incumbent vote share, the set of end-of-term elections is likely to include those elections in which the incumbent expects to return to her post as prime minister, elections in which she expects to lose office, and others where the subsequent government compositions are uncertain. Once again, since hypotheses 16 and 17 are both in reference to outcomes

of end-of-term elections, we know that the likelihood of retention in end-of-term elections lies between those of premier- and opposition-timed elections.

Direct effects of the economy While the logic that premier- (opposition-) timed elections ought to favor (disfavor) incumbents' retention of office is straightforwardly drawn from the opportunistic elections literature, the direct effects of the economy on their retention is less so. The expectation of an economic vote is the theoretical basis upon which elections are called. As stated above, there may be additional direct effects of the economy on vote share. Is there any reason to expect the economy to have any direct effect on who ends up as prime minister in premier-timed elections?

The logic of additional direct effects on vote share is based on the idea that voters make inferences about the competence of the incumbent based on the state of the economy and/or the type of election voters face. Once the economy has had an effect on the vote share, and those votes have been transformed into seats via the country's electoral formula, there is little reason to expect the parties negotiating government formation to take the economy into special account at this stage. After controlling for the type of election, there ought not be any additional direct effect of the economy on retention of the prime minister's post.

Hypothesis 18. The effect of the economy on the retention of the prime minister, net of its effects on the type of election, is zero.

Figure 5.1 diagrams the expected relationships between election type, economic performance, and both measures of electoral success. The economy (in conjunction with the parliamentary institutions described in the previous chapter) has a strong effect on the type of election that occurs. The type of election in turn has a direct effect on the vote share received by the incumbent prime minister's party. The economy may also have an additional direct effect on the incumbent's vote share – either

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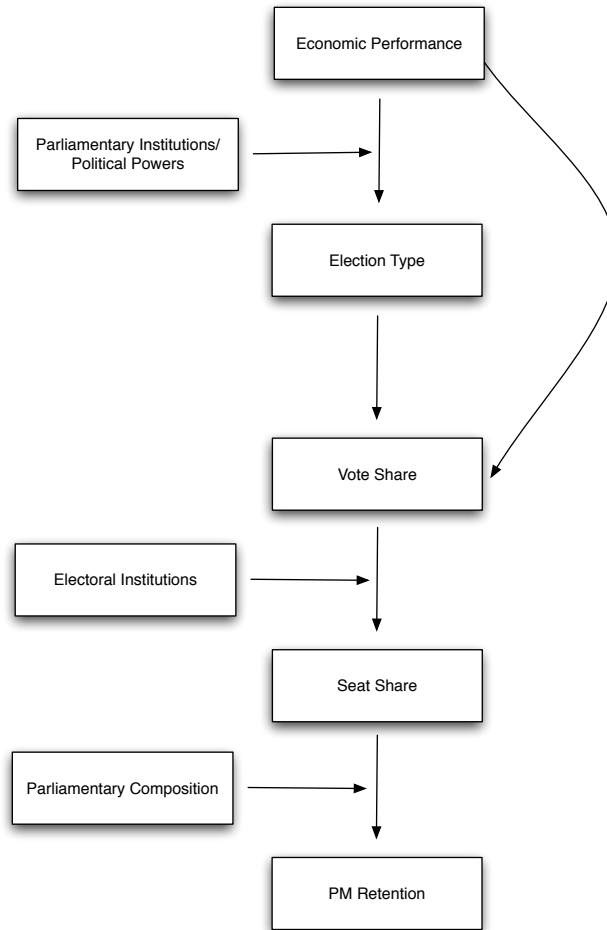
Figure 5.1: Relationship between economic performance and election outcomes

providing the incumbent with a further boost or leaving it even lower than would be predicted by the type of election they faced. Electoral institutions then moderate the relationship between vote share and seat share, with more disproportional systems reducing the correlation between the two. Finally, in cases where there is no party that holds a majority of seats in the parliament, the largest party will typically be invited to form a government; their ability to do so will depend on the partisan configuration in parliament.

5.2   Data and methods

The theory presented in this chapter views elections as mediating the effect of the economy on election outcomes. As seen in Chapter IV, the type of election voters find themselves in is predicted by the institutional powers available to politicians to call elections and the state of the economy. Mediation analysis attempts to estimate whether the effect a treatment variable (T_i) has on an outcome (Y_i) is through a particular causal mechanism (M_i) (Baron and Kenny, 1986; Imai, Keele and Yamamoto, 2010; Imai, Keele and Tingley, 2010; Imai et al., 2011; Tingley et al., 2013; Zhao, Lynch and Chen, 2010). This proposed relationship is shown in Figures 5.2, where the independent variable of interest, economic performance, is shown affecting both the type of election held (mediating variable) and the election's outcome (outcome variable). The type of election then also affects the election's/prime minister's outcome. Including economic performance in a regression model of election outcome without including the mediating variable of election type would then inappropriately attribute the part of the economy that affects election outcomes through election type to any direct effect of the economy.

Baron and Kenny (1986) claim that a mediating effect can be established by showing that a) variations in the level of the independent variable significantly account for variations in the presumed mediator; b) variations in the mediator significantly account for variations in the dependent variable; and c) when both the independent and mediating variables are controlled for, a previously significant relationship between between the independent and dependent variable is no longer significant. Zhao, Lynch and Chen (2010) argue that Baron and Kennedy's (1986) tests are too limiting. Zhao et al. suggest that scholars ought to evaluate support for a mediation theory based only on the significance and alignment with expected sign on the mediation effect (a x c in Figure 5.2), ignoring the effects of the independent variable (pathway b) on the outcome. Because the state of the economy can have a non-zero direct effect on
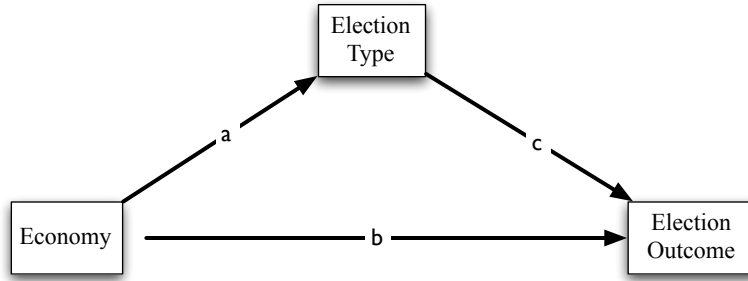
Figure 5.2: Economic vote mediated by election type

election outcomes in my theory, I follow Zhao et al. in this chapter, evaluating the support for the theory of election type mediation based on the hypotheses posited above.

To test the mediation of election type on the economy's effect election outcomes, we must first establish that the economy affects the type of election held. I establish this in Chapter 4, where I find that higher levels of unemployment reduce the likelihood of premier-timed elections when prime ministers have the capacity to dissolve parliament unilaterally and that opposition-timed elections are less likely to be called at higher levels of unemployment, but there are indications that when oppositions have the ability to dissolve parliament they are more likely to do so when the unemployment is higher, showing the presence of relationship a above.

The second step is to establish that the type of election significantly contributes to election outcomes. This requires the estimation of models predicting the three levels at which we expect the relationship to function: incumbent vote share, incumbent seat share, and incumbent retention of the prime ministership. For both models in which incumbent vote or seat share is the dependent variable, I estimate OLS regressions with panel-corrected standard errors. The models considering prime ministerial retention employ a random-effects logistic regression estimator.

Before continuing to a description of the data, it is worth mentioning the causal mediation analysis method developed by Imai and co-authors (e.g. Imai, Keele and Yamamoto, 2010; Imai, Tingley and Yamamoto, 2013; Tingley et al., 2013). This

method uses a potential outcomes framework in which a mediating variable takes on a potential value $M_i(t)$ for unit i under treatment $T_i = t$, where $Y_i(t, m)$ denotes the potential outcome that would result if the treatment and mediating variables take on values of t and m, respectively. Causal mediation analysis was developed to address the degree to which a treatment variable produces an observed effect through a direct rather than a mediated pathway in political psychology and provides a strong test of a posited causal relationship between variables. It requires the fulfillment of the assumptions of strong ignorability of the treatment and sequential ignorability. Strong ignorability requires that the treatment be randomized, which allows us to estimate the average total effects of the treatment variable. While the state of the economy is not randomly assigned by researchers, the ebbs and flows of business cycles among the countries in the sample are largely random, providing reasonable fulfillment of this assumption. Sequential ignorability requires that the treatment be independent of the outcome (ignorable), given pre-treatment covariates; and that, given that the treatment is ignorable, the mediating variable is also independent of the outcome (ignorable) given treatment and the pre-treatment covariates. Imai, Keele and Yamamoto (2010) show that the ignorability of the mediator must hold without conditioning on post-treatment confounders. Unfortunately, sequential ignorability cannot be assumed given the theoretical model given above. The observed value of the mediating variable is assumed to be a function of the expected value of the outcome variable, given the treatment. Hence, it is unlikely that this method is appropriate to test the mediation theory proposed in this dissertation. However, in Appendix D, I provide estimates that use this causal mediation analysis method, along with associated sensitivity analyses as a robustness check. These results support the findings below that the effects of the economy on the type of election held are a substantively and statistically significant means of affecting election outcomes, particularly incumbent retention.

5.2.1 Data

In order to test the theory posited above that the type of election voters face mediates the effects of the economy, I consider three dependent variables: the vote share, seat share, and retention of high office for the prime minister's party. Although the theory developed in this dissertation has implications for both the prime minister's party and opposition parties, all three dependent variables focus on the performance of the incumbent prime minister's party. There are three reasons for this measurement strategy. The first is theoretical: since politicians of all stripes are focused on who holds the prime ministership, they will be highly attuned to how elections held in a particular moment are likely to affect the prime minister's electoral support, as major losses of support weaken the incumbent's bid to retain their office. The second is practical: while researchers cannot be certain in every case which opposition parties are likely to ascend into government from a particular election, we have very clear expectations about how the different types of elections are likely to affect the prime minister's vote share. Thirdly, the literature on accountability indicates that many voters focus their attention on the prime minister and that less attention is paid to considering alternatives (e.g. Duch and Stevenson, 2008).[4] To measure electoral support, I take the difference in the prime minister's party's vote share in the current election from the party's vote share in the previous election ($Vote_t - Vote_{t-1}$). This measurement takes into account that few voters tend to switch parties from one election to the next. Since parties can rely on some stable base of support, it is thus the swing that they are most concerned with.

Following Hellwig and Samuels (2008) and Tavits and Schleiter (2014), I include the incumbent prime minister's seat share as an alternative dependent variable to assess the effects of economic voting. This measure, though correlated with vote share,

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[4]In France, the presidency is the locus of political power and the focus of voters attributions. However, because the prime minister is aligned with and chosen by the president, and the president can call early elections, I continue to focus on how the prime minister's party fares.

will differ from vote share due to electoral institutions that are likely to be correlated with those political characteristics contained in measures of clarity of responsibility (Powell and Whitten, 1993; Whitten and Palmer, 1999). Further, seat share is theoretically more closely tied to the assumed end goal of holding power than is vote share. This is measured as the difference between the prime minister's seat share in the previous parliament and the new parliament, $(Seat_t - Seat_{t-1})$.

The final dependent variable needed to test the implications of the theory of election type mediation is whether the incumbent prime minister retains her post after the election. Much of this data came from Strøm, Müller and Bergman (2008), while recent years were coded using a variety of news and online sources. For reasons similar to those given above, determining whether an opposition party's attempts to enter government were successful is subject to large errors, so I again focus on the fate of the incumbent prime minister's party. This is a dichotomous variable taking on a value of 1 when the prime minister (or her party) is returned to the position following the election and zero when any other party holds the prime ministership following the election.

The independent variable is economic performance. Following Kayser and Peress (2012) and in keeping with the results from Chapter 4, I measure economic performance as the principal components measure of the difference between domestic unemployment rates and the global average in the year preceding the election as the main economic measure (*Local Unemployment*). The difference between the domestic unemployment rate and the global average indicates how much better the national economy is performing relative to an international benchmark. I also include the global component of unemployment (*Global Unemployment*).[5] The data from Kayser and Peress (2012) uses global unemployment rates, weighted by their degree of covariance with the country of interest, as the comparison that voters (and thereby

[5]See Chapter 4 and Kayser and Peress (2012) for details on the logic of including both components.

politicians) use to assess the economy. Kayser and Peress show that news reports often make cross-national comparisons for voters, making this a reasonable approximation of how voters may judge the economy. As a robustness check, I use a related measure of unemployment performance specific to the countries in this dataset: the simple difference between national unemployment and the OECD average rate in the year prior to the election (*National Unemployment*). Because of missing observations in the Kayser and Peress (2012), particularly of recent elections after the 2008 global financial crisis, this approach ensures broader coverage. The OECD average unemployment rate is also included (*OECD Unemployment*).

The mediating variable is the type of election. Chapter 3 described the three main types of elections: end-of-term elections, premier-timed elections, and opposition-timed elections. End-of-term elections are those held within 90 days of the maximal parliamentary term;[6] premier-timed elections are elections held more than 90 days prior to the expiry of the parliament and were called by the prime minister; and opposition-timed elections are those held more than 90 days prior to the parliament's expiry that were forced by non-prime ministerial parties.[7] The two dichotomous indicators of premier-timed and opposition-timed elections are included in the analyses.

A number of control variables are included in the estimations as well. All models include the effective number of parties in parliament to account for the fractionalization of the party system and the complexity of the bargaining environment when it comes time to form a government. (Gallagher and Mitchell, 2011; Laasko and Taagepera, 1979). The model of seat share change controls for the disproportionality of the electoral system to account for the boost that large parties (which often contend for the prime ministership) may be able to exploit through timing elections

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[6]Elections categorized as "other" early elections are treated as end-of-term elections in the analyses below.

[7]In semi-presidential systems, elections called by the president during which there was no cohabitation are considered premier-timed; during periods of cohabitation, presidentially dissolutions of the parliament are considered opposition-timed.

when their support in marginal seats improves. The model of changes in vote share includes whether the government was composed largely of left-wing parties (Grafström and Kayser, 2014). The models of both changes in vote share and prime ministerial retention include dummies for minority and coalition government status. The model of seat share changes incorporates electoral system disproportionality (Gallagher and Mitchell, 2011). The data includes up to 222 elections held in 19 countries from 1967 through 2010.

5.3   Results

Table 5.1 shows the baseline model of economic voting without the inclusion of our mediating variables of election types. The first two columns show the models of incumbent vote share change, the third and fourth columns model changes in incumbent seat share, and the final two columns model the prime minister's retention. The local and national unemployment components are both negative but statistically insignificant, while the global and OECD components are negative and significant for the models of changes in vote and seat shares. Coalition governments have a positive and significant effect on the change in the prime minister's vote share, but a negative and marginally significant effect on her retention when the Kayser and Peress measures of unemployment are used. This suggests that those ruling in coalition are punished less by voters, but face higher hurdles in forming a government following an election. Lead parties of minority governments also receive a marginally significant positive impact on vote share.

Table 5.2 provides estimated regressions for the three dependent variables described above. Once again the first two columns show regressions in which change in incumbent vote share is the dependent variable, the third and fourth columns show regressions in which change in seat share is the dependent variable, and the fifth and sixth columns regress prime ministerial retention of office on the regressors.

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Table 5.1: Baseline Economic Voting Relationship

	Vote	Vote	Seat	Seat	Retention	Retention
Local Unemployment		-0.10		-0.21		-0.03
		(0.15)		(0.20)		(0.05)
Global Unemployment		-0.40*		-0.55*		-0.04
		(0.16)		(0.25)		(0.05)
National Unemployment	-0.01		-0.26		-0.05	
	(0.14)		(0.22)		(0.04)	
OECD Unemployment	-0.66**		-0.78*		0.09	
	(0.23)		(0.35)		(0.08)	
Effective Number of Parl. Parties	-0.21	-0.02	0.18	0.15	0.11	0.02
	(0.34)	(0.39)	(0.37)	(0.40)	(0.13)	(0.13)
Coalition Incumbent Government	2.39*	1.17			-0.66†	-0.39
	(1.03)	(1.03)			(0.35)	(0.37)
Minority Incumbent Government	1.51	1.97†			0.24	0.22
	(1.01)	(1.06)			(0.35)	(0.77)
Left Incumbent Government	0.16	-0.63				
	(0.88)	(0.97)				
Electoral System Disproportionality			-0.78***	-0.79***		
			(0.16)	(0.15)		
Constant	1.05	-0.33	4.70†	3.33	-0.32	0.78
	(1.81)	(1.86)	(2.84)	(2.49)	(0.63)	(0.56)
N	217	191	216	191	217	191
Number of countries	19	19	19	19	19	19

Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

Neither *Local Unemployment* nor *National Unemployment* are have statistically significant effects on any of the dependent variables. However, high levels of *Global Unemployment* produces significantly negative changes in both the vote and seat shares of incumbent prime ministerial parties. It does not, however, have any effect on the likelihood the prime minister retains her post. *OECD Unemployment* also has a significant negative effect on the change in lead party vote share, a negative but statistically insignificant effect on changes in seat share, and an unexpected positive and marginally significant effect on her likelihood of retaining office. I expected that the direct effects of the economy would be strongest in changes in vote share and would wane as we moved further from the voter, and this is precisely what we find. Kayser and Peress (2012) would likely find the lack of significance of the local component of unemployment puzzling, as they find it to have the strongest impact on incumbent vote shares. However, given the finding in Chapter 4, we know that local

Table 5.2: Election Type as Mediator of the Economic Voting Relationship

	Vote	Vote	Seat	Seat	Retention	Retention
Local Unemployment		-0.12		-0.25		-0.03
		(0.15)		(0.19)		(0.05)
Global Unemployment		-0.45**		-0.68**		-0.06
		(0.16)		(0.24)		(0.05)
National Unemployment	-0.06		-0.36†		-0.06	
	(0.14)		(0.22)		(0.05)	
OECD Unemployment	-0.67**		-0.73*		0.08	
	(0.23)		(0.34)		(0.08)	
Premier-timed	2.75**	2.98**	5.61***	6.48***	0.74*	0.88*
	(1.00)	(1.02)	(1.36)	(1.34)	(0.34)	(0.37)
Opposition-timed	-0.04	-0.13	0.14	0.87	-0.68	-0.67
	(1.37)	(1.52)	(1.79)	(1.98)	(0.44)	(0.48)
Effective Number of Parl. Parties	-0.23	-0.05	0.19***	0.16	0.11	0.02
	(0.34)	(0.39)	(0.38)	(0.42)	(0.13)	(0.14)
Coalition Incumbent Government	2.82**	1.55			-0.51	-0.28
	(1.02)	(1.02)			(0.36)	(0.39)
Minority Incumbent Government	1.37	1.74			0.34	0.28
	(1.02)	(1.07)			(0.39)	(0.41)
Left Incumbent Government	0.51	-0.10				
	(0.87)	(0.95)				
Electoral System Disproportionality			-0.84***	-0.84***		
			(0.15)	(0.14)		
Constant	-0.17	-1.45	2.87	1.98	-0.49	0.64
	(1.91)	(1.86)	(2.87)	(2.47)	(0.66)	(0.58)
N	217	191	216	191	217	191
Number of countries	19	19	19	19	19	19

Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

unemployment has an additional route by which it can affect electoral outcomes: its impact on the type of election.

Premier-timed elections have a positive and statistically significant effect on all measures of electoral success. Lead parties can expect to improve their vote shares by nearly three percentage points and their seat shares by five percentage points! When holding all other covariates at their median values, a incumbent is up to 25 percent more likely to return to the prime ministership following a premier-timed election than she is following an end-of-term election.[8] These are substantial effects and provide clear evidence that the capacity of prime ministers to choose when they face voters does help them stay in office longer.

[8]Change in predicted probability calculated using estimates from column 5.

Opposition-timed elections have the expected negative relationship to both changes in vote share and retention of the premier. While the z-ratios of the coefficients shrink as one moves across the table from change in vote share to retention, and approaches marginal levels of significance in the fifth column, opposition-timed elections do not have a significant effect on incumbent electoral performance compared to end-of-term elections. When the model in Column 5 is re-estimated excluding the "Early Other" elections, opposition-timed elections have a negative and statistically significant effect at the 0.08 level. However, this result is not replicated in re-estimations of the model in Column 6 that uses *Local* and *Global Unemployment* as measures of economic performance, casting doubts on the reliability of this sole significant coefficient estimate. This is a disappointing result, but not an entirely unexpected one. With only 34 cases of opposition-timed elections observed there is scant statistical power with which to calculate effects. The consistency of the direction of the relationship between opposition-timed elections and incumbent electoral outcomes is suggestive that these elections are a somewhat effective tool for opposition parties to move the locus of governmental power. The descriptive statistics suggest that there is an important difference in the prime minister's retention between premier- and opposition-timed elections: over 70% of prime ministers return to their office following premier-timed elections, but only 35% of them do following opposition-timed elections.

While we would ideally estimate the indirect effect of domestic unemployment by combining the results from Chapter 4 with those above, this is not possible. The strategic probit model used to estimate the utility functions of the prime minister and opposition over different types of elections does not readily translate to the type of effects envisioned by Zhao, Lynch and Chen (2010). The strategic probit results do indicate that when the prime minister can unilaterally dissolve parliament, higher levels of *Local Unemployment* reduces her incentive to do so. This means that higher *Local Unemployment* reduces the likelihood of being in a premier-timed election,

thereby leading to smaller increases in vote share, seat share, and the likelihood of re-entering the prime ministership.

The effects of *Local Unemployment* on election outcomes through opposition-timed elections is more tenuous. While the coefficient on the interaction between the head of state's unilateral capacity to dissolve parliament and unemployment was signed such that increased unemployment increased the incentive to bring about an opposition-timed election, this was insignificant. Instead, the only instance in which *Local Unemployment* had a statistically significant impact on the opposition's utility over forcing an election was when the interaction with the head of state's power was omitted. In this instance, higher domestic unemployment reduced the incentive to bring about opposition-timed elections. If this relationship reflects the true data generating process, then the indirect effect of *Local Unemployment* on election outcomes is to mildly improve the incumbent's electoral prospects, though not significantly so, in contrast to theory. In all likelihood, the same problems of low statistical power for the opposition-timed elections discussed above produced the insignificant results in Chapter IV.

Considering the effects of the control variables, the effective number of parties in the parliament has an unexpected positive and significant effect on changes in seat share for incumbents, but no statistically significant effect for either changes in vote share or control of the prime ministership. An incumbent who was a member of a coalition government experiences an increase in their vote share, significantly so in the first column, but this has no statistically significant effect on their likelihood of retaining their post (the final two columns). Neither minority nor left-wing incumbent governments have no effects in any estimation. As expected, increased electoral system disproportionality has a tendency to harm incumbents' seat shares.

Tables 5.1 and 5.2 align with many of the literature's findings: that the economy's direct effects on election outcomes are small. However, the type of election has a large

and significant effect on who wins an election. From Chapter IV we know that the economy has an important effect on which type of election voters find themselves in. Combined, this strongly suggests that an important way in which the economy affects elections is through the calling of elections themselves. Most importantly, the type of election strongly predicts the retention of the prime minister, a key finding in support of this dissertation's theory.

5.4   An alternative relationship: elections as a moderating variable

While there is evidence in favor of the theory that elections act as a mediating variable of the economic vote, there is an alternative relationship between economic performance, election type, and election outcomes that merits exploration: elections as a moderating variable on election outcomes. Moderators alter the level of an existing relationship between two variables (e.g. Baron and Kenny, 1986; Brambor, Clark and Golder, 2006). It could be that there is a baseline level of economic voting that is moderated by the type of election. If, for instance, voters observe an early election and discount their use of economic performance in their vote decision, as proposed by Smith (2004), this might be observed by negative coefficients on an interaction between premier-timed elections and unemployment or a positive coefficient on an interaction between unemployment and opposition-timed elections. Alternatively, if the salience of the economy falls when the economy improves as Bloom and Price (1975) argue, then, if prime ministers (oppositions) call elections when the economy is up (down), we would expect a negative coefficient on the interaction with opposition-timed elections and a positive sign on the interaction with premier-timed elections. The latter is consistent with the assumption of low-information voters adopted here.

To test this alternative view of elections as moderating variables, I have repro-

Table 5.3: Election Type as Moderator of the Economic Voting Relationship

	Vote	Vote	Seat	Seat	Retention	Retention
Local Unemployment		-0.12		-0.10		-0.06
		(0.21)		(0.27)		(0.07)
Global Unemployment		-0.43**		-0.63**		-0.07
		(0.16)		(0.24)		(0.06)
National Unemployment	-0.03		-0.56		-0.12†	
	(0.19)		(0.37)		(0.07)	
OECD Unemployment	-0.67**		-0.76*		0.07	
	(0.23)		(0.33)		(0.08)	
Premier-timed	2.50*	2.82**	5.33***	6.48***	0.64†	0.85*
	(1.02)	(1.02)	(1.39)	(1.33)	(0.34)	(0.37)
Opposition-timed	0.32	0.32	0.43	1.41	-0.65	-0.64
	(1.38)	(1.43)	(1.83)	(1.97)	(0.45)	(0.50)
Unemployment*Premier	0.15	0.20	0.50	-0.13	0.17	0.09
	(0.31)	(0.30)	(0.48)	(0.40)	(0.11)	(0.10)
Unemployment*Opposition	-0.37	-0.46	0.03	-0.55	0.04	-0.04
	(0.40)	(0.48)	(0.57)	(0.59)	(0.12)	(0.14)
Effective Number of Parl. Parties	-0.31	-0.08	0.19	0.08	0.10***	0.02
	(0.35)	(0.40)	(0.41)	(0.44)	(0.13)	(0.14)
Coalition Incumbent Government	2.88**	1.67†			-0.50	-0.25
	(1.02)	(1.01)			(0.36)	(0.39)
Minority Incumbent Government	1.75†	2.13†		0.40	0.37	
	(1.06)	(1.09)			(0.41)	(0.42)
Left Incumbent Government	0.41	-0.21				
	(0.88)	(0.95)				
Electoral System Disproportionality			-0.83***	-0.85***		
			(0.15)	(0.14)		
Constant	0.10**	-1.48	2.93	2.04	-0.46	-0.63
	(1.93)	(1.84)	(2.93)	(2.48)	(0.67)	(0.59)
N	217	191	216	191	217	191
Number of countries	19	19	19	19	19	19

Standard errors in parentheses. *** p < 0.001, ** p < 0.01, * p < 0.05

duced the second stage regressions from Table 5.2, but include interaction terms between the type of election and domestic unemployment in Table 5.3. In these regressions, the coefficients on *Local Unemployment* and *National Unemployment* denote the effects of these local components of the economy electoral outcomes during end-of-term elections. In only the fourth column (changes in seat share with *National Unemployment* measuring economic performance) does this estimate approach statistical significance. In the first two columns, the coefficients on the interaction between both *Local* and *National Unemployment* is positive for premier-timed elections and negative for opposition-timed elections, though both interactions are statistically insignificant. The marginal effects increased domestic unemployment are likewise statistically insignificant, though they approach significance (p=0.16) for the interaction with *Local Unemployment*. While the signs on the interaction effects are consistent with the economically contingent salience argument, there is insufficient evidence here to suggest that the weak effects of the domestic economy for voters found in Table 5.2 are due to moderating relationship. The interaction between *Local Unemployment* and premier-timed elections changes sign when seat share change is the dependent variable, while the interaction with *National Unemployment* and opposition-timed elections also switches for this analysis. None of these coefficients, nor the marginal effects, were significant when change in seat share is the dependent variable. Finally, the coefficients on the interactions when retention is the dependent variable are generally aligned with those of vote share, namely in the direction of economically contingent salience. However, again, they are highly insignificant.

Once again, higher *Global Unemployment* produces falls a decrease in both vote and seat share. Increased *OECD Unemployment* produces a negative change in vote share, but has a positive and marginally significant effect on the prime minister's retention, as in Table 5.2.

Premier-timed elections continue to have positive and statistically significant ef-

fects on all dependent variables at broadly similar magnitudes to those found in Table 5.2. Opposition-timed elections are statistically insignificant across the board. Taken as a whole, there is no support for the economic vote's moderation by election type.

5.5 Conclusion

This chapter takes the final step toward determining the primary path through which elections shape electoral outcomes. The results above show that election types mediate the effects of unemployment on incumbent electoral success. While the economy still has direct effects on election outcomes, particularly through the international components of unemployment on changes in incumbent vote and seat share, it also has important indirect effects through its influence on the type of election. Premier-timed elections have a significant positive effect for all three measures of electoral success. Opposition-timed elections produce consistently negative coefficient estimates for both vote share and, importantly, prime ministerial retention. In Chapter IV I demonstrate that *Local Unemployment* is an important factor affecting the utilities of both prime ministers and oppositions in their decision to initiate early elections. In combination, these two sets of findings support the argument that an important avenue through which the economy affects electoral outcomes is through its effects on who calls an election and when. Elections called by the prime minister are significantly more likely to return her to power, while those called by the opposition may lead to increased turnover in control of the cabinet.

This chapter also tested an alternative hypothesis that election types moderate the effects of the economy. The evidence resoundingly rejects this argument. The effects of the domestic components of unemployment are not contingent on the type of election. While the signs on the interaction effects were generally supportive of an economically contingent salience argument, these coefficients and the marginal effects of unemployment never reached statistical significance. This leaves only the election

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type as mediator hypothesis standing.

These findings have significant implications for our understanding of economic voting as a proxy for democratic accountability. Though the economy still has some direct effects on changes in vote share, it also has important effects on when voters go to the polls. Earlier contributions to the macro-level economic voting literature argued that the state of the economy has a larger impact when institutions concentrate power, and that this larger impact improved accountability (e.g., Powell and Whitten, 1993). The politician centered theory of economic voting propagated in this dissertation suggests that, in fact, the opposite may be true: if the economy matters more for election outcomes in contexts with higher concentrations of power it is because these institutions allow for more opportunistic election timing. If voters are myopic and are not paying particularly close attention to how an election came about, then this opportunism diminished democratic accountability.

CHAPTER VI

Conclusion

This dissertation was inspired by a troubling puzzle: why is there such little support for the idea that the state of the economy affects electoral support for incumbents? The existing literature on macro-level economic voting has tended to find very little, highly-contingent support that is often built on unpersuasive empirics. I argue that by focusing on the behavior of politicians, we can better understand how the economy affects who wins elections. Analyzing novel data that categorizes elections by which political actor precipitates them, I show that an important avenue through which the economy influences who governs is through its effects on the timing of elections by those both in and out of government.

In Chapter 1, I substantiate that early work on the foundational clarity of responsibility hypothesis suffers from significant estimation and inferential errors. After correcting for those errors, there is little evidence that institutions that concentrate power (thereby clarifying who is in charge) moderate the economy's effects. The economic voting literature at the macro- and micro-levels is built in part around the clarity of responsibility hypothesis' assumption that voters are aware not only of the state of the economy, but also the degree to which individual political parties are responsible for its state (e.g., Duch and Stevenson, 2008; Powell and Whitten, 1993; Whitten and Palmer, 1999). The lack of support for the clarity of responsibility hy-

pothesis serves as my point of departure in a discussion of how alternative frameworks for evaluating how the economy matters in elections can produce additional empirical implications based on simpler assumptions of voters and politicians to differentiate it from the clarity of responsibility theory.

The theory introduced in Chapter 2 and further developed in Chapters 4 and 5, is built on a simpler set of assumptions about voters and brings in a heretofore neglected actor in the economic voting literature: political parties. I assume that voters use the economy to help determine their vote choice and focus their attributions for economic performance on the prime minister's party, but otherwise pay little attention to the finer details of how power is distributed. Politicians, on the other hand, are both highly attuned to the nuances of political power and institutions, and are incentivized to use voters' economic performance heuristic to further their goal of gaining office whenever they have the opportunity. In order to secure high office, politicians in most parliamentary countries will try to dissolve parliament at *economically* opportune moments. This is an incentive shared by those in the prime minister's party and in the opposition. The capacity of any actor to precipitate early elections varies. I show that there are both theoretical and empirical connections between measures of clarity of responsibility and the capacity to call early elections.

I identify a categorization scheme that divides elections into four mutually exclusive types: end-of-term, premier-timed, opposition-timed, and other-early elections. While the frequency with which parliaments end before their full mandate is reached is a topic of extensive scholarship, the category of opposition-timed elections is a new one. Previous studies had either ignored it or lumped it in with elections brought about by the prime minister. The theory advocated in this dissertation demonstrates that opposition-timed elections ought to come about under different institutional and economic contexts than premier-time elections, and should have much more dire consequences for incumbents. Chapter 3 details all elections included in the data used in

this dissertation and discusses the multiple ways that elections in each of these general classes manifest themselves. I go on to describe regularities in the types of elections held across countries with similar institutions. Countries in which the prime minister can unilaterally dissolve parliament have a high proportion of premier-timed elections. Those countries with a head of state who can dissolve parliament without the prime minister's approval have a relatively high proportion of opposition-timed elections. When dissolution requires the assent of multiple actors, very few parliaments end early.

The regularities between the institutional capacity to dissolve parliament and the types of elections countries tend to experience is scrutinized in Chapter 4. Having the ability to dissolve parliament at any moment does not mean that an actor has the incentive to do so: economic performance shapes the will to use the tools of election timing. Using a strategic probit model, I find support for the argument that having the institutional means to force early elections increases the instances of calling early elections, but this effect is moderated by economic performance. There is significant evidence of this effect for premier-timed elections, though less substantial evidence for the moderating effects of the economy on opposition-timed elections.

Chapter 5 uses the findings from the analyses in Chapter 4 to determine whether elections called by prime ministers rather than oppositions, or being held at the end of the term, produce different outcomes. Using three measures of electoral success–change in prime ministerial vote share, prime ministerial seat share, and retention of the office of prime minister–I find that the type of election has a significant impact on electoral outcomes. Elections called by the prime minister result in positive swings in vote and seat share, and substantially improve the likelihood of heading the post-election government. Opposition-timed elections are associated with negative swings in vote and seat share, and depressed chances of returning to the prime ministership, though none of these relationships are statistically significant. The importance of

economic performance in determining which type of election voters find themselves in, however, means that one of the important ways in which economic performance affects who wins elections and who governs is through its effects on election type.

These findings have important implications for our understanding of economic voting as a proxy for democratic accountability. While the economy directly affects changes in vote share and seat share, it also has important effects on when voters go to the polls. Much of the macro-level economic voting literature has viewed the economy's increased importance in election outcomes when institutions concentrate power as indicative of higher levels of democratic accountability (e.g., Powell and Whitten, 1993). The politician-centered theory of economic voting propagated suggests that the opposite is true: if the economy matters more for election outcomes when power is concentrated, it is because these institutions allow for more opportunistic election timing. If voters are myopic observers of the economy and are not paying particularly close attention to how an election came about, then this opportunism diminishes democratic accountability. Thus, one of the purported benefits of concentrated power cuts the other way, providing politicians the opportunity to skirt accountability to voters that would be less available in more constrained systems.

There are a number of potential avenues for future research in this field. The sparsity of opposition-timed election observations is likely limiting our ability to clearly identify the effects of this type of election. Expanding the dataset is thus a natural first step. In particular, coding earlier elections in the countries considered in the dissertation could provide additional cases of opposition-timed elections, though expanding the dataset to other democracies is an additional possibility.

Chapter 4 described an alternative framework for determining what factors produce the different types of elections. I am currently creating a parallel dataset organized at the country-quarter level, rather than the country-election level, that will allow me to employ a competing risks event history model to answer this question.

This method will allow me to test additional implications of my theory and provide a robustness check to the main results of Chapter 4.

Finally, this dissertation has assumed that economic performance is an exogenous contextual attribute to which politicians respond. However, the political business cycle and political budget cycle literatures argue that politicians attempt to, and are sometimes successful in, manipulating the economy (e.g., Clark, 2003; Franzese, 2002; Shi and Svensson, 2006). This has a number of potential implications for my theory. If election timing manipulation and economic policy/outcome manipulation are two potential tools that politicians can use to improve their electoral prospects, they may be used as substitutes. While fixed-term electoral systems such as the US and Norway have only economic policy/outcomes manipulation to work with, parliamentary systems may have both. When election timing is easy to manipulate, it is likely to be used. However, as mandatory elections near, there is likely to be a greater incentive to use policy manipulation to produce an economic boost in the run-up to elections. Further, these manipulations, because they do not happen often, may come as a 'surprise' to markets, producing a relatively larger effect on short-run output than a similarly sized stimulus in countries that use policy manipulation more often. Additionally, as the capacity of politicians to manipulate policy has diminished over time with the floating of exchange rates, increased capital mobility, and increased independence of central banks, governments that may have waited to call elections, knowing they could manipulate the economy, will become increasingly likely to call earlier elections, to do so under relatively worse economic circumstances, and/or earlier in their terms.

This project has performed the preliminary work necessary to explore such possibilities. The next step is to consider how the additional (and varyingly effective) tool of macroeconomic manipulation coupled with the ability to time elections affects both economic and political outcomes. At what point do politicians with the capacity

to call elections at will instead choose to alter short-run output? Do countries more at the mercy of international markets experience more opportunistic elections? Do their leaders still attempt to manipulate the economy (with little expected effect) when they cannot easily call elections? Is one form of manipulation more effective than the other? While this dissertation can say that the state of the economy affects the type, and thereby, outcome of elections we still need to better understand the tradeoffs that politicians make in their attempts to hold power and how these choices affect their national economies. The weak support for economic voting at the level of election outcomes is largely due to a theoretical and empirical oversights in the literature that are addressed in this dissertation. The reason that evidence of economic voting has been "intermittent, highly contingent, and substantively small, is that the scholars have looked to voters instead of politicians to do the work of interpreting the accountability of incumbents for the state of the economy (Anderson, 2007, pg. 286). When politicians are strategic but potentially constrained, we see that they choose to time elections when the economy favors them and that they tend to win.

APPENDICES

APPENDIX A

Descriptive Statistics

Table A.1: Descriptive Statistics for Continuous Variables

	Mean	St. Dev.	Minimum	Maximum	N
Government Vote Share$_{W\&P}$	46.28	12.15	10.6	91.6	138
Government Vote Share$_{FullSample}$	45.43	13.03	6.8	95.8	253
Percentage Change in Gov't Vote Share	-0.008	0.87	-0.80	0.82	253
Comparative Growth	-0.30	1.66	-6.48	4.46	138
Comparative Inflation	-3.28	3.74	-14.33	7.72	138
Comparative Unemployment	0.14	3.53	-6.93	13.91	138
Relative Growth	-0.14	2.27	-8.87	7.20	245
Relative Inflation	0.55	2.78	-9.99	-11.28	245
Relative Unemployment	0.32	1.53	-5.41	6.15	252
Minority Duration	5.92	13.26	0	58	253

Table A.2: Descriptive Statistics for Ordinal Variables

	0	1	2	3	4	5
Minority	192	68	-	-	-	-
Coalition	128	126	-	-	-	-
# Gov Parties	-	77	28	7	23	3
Clarity (3 categories)	65	120	75	-	-	-
Clarity$_{W\&P}$	8	57	120	75	-	-
Clarity$_{Mine}$	15	51	144	50	-	-

APPENDIX B

Meta-Analysis of Clarity of Responsibility Support

Some might argue that the models above are cherry-picked to undermine the clarity of responsibility theory. While the evidence above draws on the insights of some of the most cited work in the field, these weak results may stem from particular measurement choices. In order to ensure that we know whether the results above are representative of larger trends, I estimated 1,620 regression coefficient combinations that employ various measures of both the independent and dependent variables. The direction and significance of each variable of interest is noted in the tables below, as well as the joint significance of the marginal effects for each regression. Instead of reporting all of the coefficients in a (seemlingly endless) series of tables, I present an aggregation of the results for each general measure of economic performance (growth, inflation, and unemployment) as they relate to institutional attributes that serve to reduce clarity of responsibility.

The estimates shown below include five measures of clarity of responsibility. Namely, these are the five constituent attributes of the indices used above: an upper house of parliament controlled by opposition parties, coalition government, minority government, opposition control of committee chairmanships, and weak party cohesion. While various institutional attributes have been posited by the literature to impede

voters' attributions of responsibility for policy outcomes, the arguments underlying these measures do not imply any interactive effect on the presence of a particular combination of institutions. As such, they ought to each have an independent effect on the economy's impact on election outcomes. One useful attribute of dividing the moderating variable into its constituent parts is that the interaction terms are much easier to interpret. Because the clarity of responsibility measures only take on a value of zero or one, the statistical significance of the coefficient on the interaction term can tell us whether the presence of the moderating variable produces a statistically significant difference on the effect of the economic variable compared to its absence. Tables B.1 through B.5 are arranged by the institutional attribute interacted with the various measures of economic performance.

The regressions described in the tables below use a variety of different measures of incumbent vote support. The first potential means of dividing the dependent variable is by the focus of voter attributions. While Powell and Whitten (1993) and Whitten and Palmer (1999) consider total government vote share, the political behavior literature indicates that voters will focus on a single, highly visible actor when attributing responsibility and blame (e.g., Blais et al., 2009; Duch and Stevenson, 2008; Gerber and Hunter, 2009). More recent work as focused the vote share of the prime minister's party or the finance minister's party (Duch and Stevenson, 2008). The regressions described below consider these three partisan actors (government, prime minister, and finance minister) as potential loci of voter ire or reward. Further, there are multiple ways in which support can be measured. Total vote share (used above) is one measure. However, the change in vote share or the percentage change in vote share could also be considered reasonable metrics. Combining these two dimensions of dependent variable measurement, we end up with a total of nine dependent variables used for each table below.

Furthermore, the appropriate measurement of our three economic variables is not

self-evident. The regressions above employ two measures of economic performance: comparative[1] and relative.[2] Two additional measurement strategies are added below. First the percentage change in the economy in the year leading up to the election compared to the previous year is used. This measure accounts for large, noticeable swings in economic performance that may be particularly notable to less politically engaged voters (Lupia et al., 2011). Finally, in line with numerous studies, the simple growth, inflation, and unemployment rates in the year prior to the election are used (e.g., Clagget, 1986; Pacek, 1994).

Each regression included only one of the three economic variables (i.e., if unemployment is included, neither inflation nor growth effects are estimated). Earlier estimates that include all three measures are likely to suffer from problems of multicolinearity, as growth and employment tend to move in tandem, while theory suggests a tradeoff between inflation and unemployment (Achen, 1982; Clagget, 1986). The economic measure is then interacted with a single institutional attribute (e.g., weak party cohesion) and the marginal effects of the institutional attribute on each economic measure is then estimated, along with the significance of the marginal effect. Finally, a standard battery of controls is included. Regressions estimate panel corrected standard errors as above. The general form of the regressions described in the tables below is:

$$Support = \beta_0 + \beta_1 Economy + \beta_2 Clarity + \beta_3 Economy * Clarity + \beta_N X \quad \text{(B.1)}$$

Because of the large number of estimates[3] (108 for each measure of the economy in each table), instead of discussing the results of the regressions individually Tables

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[1]Comparing current economic performance to the OECD average for the year prior to the election.

[2]Comparing current national economic performance to the average national economy over the four previous years.

[3]Data and do-files to replicate all estimates can be found on the author's website.

B.1 through B.5 provide information on the number of sets of coefficients that showed particular characteristics. The tables each report on the coefficients for the economic variable and its interaction with a single moderating variable (for example, Table B.4 specifies the relationship between the economy and the proportional distribution of committee chairmanships, which indicates that some committees are chaired by members of opposition parties). Specifically, each table provides information on how many coefficients on growth, inflation and unemployment, measured in four different ways, were correctly signed for the economic constitutive term, the interaction term, both the constitutive term and the interaction term, or neither coefficient. The number in parentheses shows the number of those cases in which the coefficient was statistically significant at the 95 percent confidence level (or in the cases considering both the constitutive and interactive terms, the interactive term was statistically significant).

Table B.1 shows the results for interactions between the economic variables and the dummy for opposition control of an upper parliamentary house. The first row shows the number of cases in which β_1, the coefficient on the constitutive economic term, was correctly signed (positive for growth; negative for inflation and unemployment) but the interactive term was incorrectly signed. Growth was correctly signed in 24 regressions; inflation was correctly signed in only 3; and 101 were correctly signed for unemployment. In no case, however, were any of these estimated coefficients statistically significant. Likewise, the second row shows that the cases in which the coefficient on the interaction term was estimated to be in the correct direction (opposite to the expected direction of the constitutive term), but the constitutive term was incorrectly signed. None of those interaction coefficients were estimated to be statistically significant. In fact, very few cases fall into this category, with only 9 growth interactions, 58 inflation interactions, and 3 correctly signed unemployment interactions being paired with an incorrectly signed constitutive term. The third row shows the cases in which neither the constitutive economic term nor its interaction

Table B.1: Coefficient signs for Divided Government interactions with Economic Performance

	Growth	Inflation	Unemployment
Only β_1 Correct	24 (0)	3 (0)	101 (0)
Only β_3 Correct	9 (0)	58 (0)	3 (0)
Neither β_1 nor β_3 Correct	72 (15)	15 (0)	4 (0)
Both β_1 & β_3 Correct	3 (0)	29 (0)	3 (0)

with divided government was correctly signed. Fully 72 regressions estimated this effect when considering growth, of which 15 were statistically significant. This is implies a perverse relationship in which the incumbent government is harmed by improving GDP growth, and is only rewarded when it has to govern with an opposition controlled second chamber. The perverse economic voting relationships were less pervasive when considering either inflation or unemployment with only 15 and 4 cases falling into this category, respectively. Finally, the fourth row shows the number of regressions in which both the coefficient on β_1 and β_3 were correctly signed. Regressions considering either growth and unemployment as the economic measure had only 3 cases each where the expected relationship is observed. 29 regressions with inflation found the expected relationship, but like the unemployment and growth regressions, none of these were found to produce a statistically significant marginal effect.

Table B.2 shows the same coefficient relationships when economic performance is interacted with coalition government as a measure of institutional clarity. Given that a government contains multiple parties rather than a single party is readily available information that ought to be low cost for voters to learn, we would expect this to have a particularly strong moderating effect on economic voting. Very few sets of coefficients have either the β_1 or β_3 solely signed correctly, and in none of those cases is the coefficient significant. The third row shows that there were, however, a large number of estimates in which both coefficients were incorrectly signed for inflation and growth, but no set was incorrectly signed for unemployment and its interation. There are 74 sets of coefficients that are signed counter to theory for growth, of which

Table B.2: Coefficient signs for Coalition Government interactions with Economic Performance

	Growth	Inflation	Unemployment
Only β_1 Correct	10 (0)	8 (0)	10 (0)
Only β_3 Correct	6 (0)	29 (0)	4 (0)
Neither β_1 nor β_3 Correct	74 (21)	50 (0)	0
Both β_1 & β_3 Correct	18 (0)	21 (0)	94 (15)

21 were statistically significant. This implies that as growth increases, single party governments are likely to either be punished or receive no credit, while coalition governments (or the leading parties of those governments) are likely to be rewarded, the precise opposite of what is predicted by the economic voting literature. On the other hand, the final row of Table B.2 shows that most estimates of unemployment's effects (94 of 108) have both coefficients correctly signed and 15 are also statistically significant, indicating that coalitions have the expected moderating effect on punishment of governments when they rule of periods of higher unemployment. The evidence from unemployment bolsters the existing literature's claims, but those for growth undermine it.

Considering the moderating effects of minority governments, we can see from the last row of Table B.3 that while there were a considerable number of regressions in which the coefficients on both β_1 and β_3 were signed in accordance with theory (particularly among the sets of coefficients including unemployment or inflation), none were statistically significant. The third row shows that the majority of coefficient sets that include a measurement of GDP growth (62 of 108) were incorrectly signed, of which 12 were also statistically significant. The second row shows that the plurality of coefficient sets including inflation (48) had a theoretically inconsistently signed estimate for the constitutive term but a correctly signed interactive term, though again, none were statistically significant. Finally, the first row shows that a substantial number of coefficient sets including growth and unemployment had correctly signed constitutive terms and incorrectly signed interactive terms, 25 and 39 respectively. Of those, none

Table B.3: Coefficient signs for Minority Government interactions with Economic Performance

	Growth	Inflation	Unemployment
Only β_1 Correct	25 (0)	3 (0)	39 (3)
Only β_3 Correct	18 (0)	48 (0)	0
Neither β_1 nor β_3 Correct	62 (12)	28 (0)	4 (0)
Both β_1 & β_3 Correct	3 (0)	29 (0)	65 (0)

Table B.4: Coefficient signs for Opposition Control of Committee Chairmanships interactions with Economic Performance

	Growth	Inflation	Unemployment
Only β_1 Correct	11 (0)	18 (0)	2 (0)
Only β_3 Correct	12 (0)	14 (0)	0
Neither β_1 nor β_3 Correct	68 (5)	62 (3)	4 (0)
Both β_1 & β_3 Correct	17 (0)	14 (0)	102 (1)

were statistically significant for growth and three were significant for unemployment. This implies that increased unemployment may harm all governments, but it does not harm minority governments any less than majority ones.

There are again few sets of coefficients in which only one of the coefficients is correctly signed when moderated by opposition control of committee chairmanships in Table B.4, as seen in the first two rows. The third row of Table B.4 is slightly more concerning. The majority of estimated set of coefficients for both growth (68) and inflation (62) suggest the perverse moderating effects described above. Five of these sets of coefficients on growth and three sets on inflation result in statistically significant marginal effects. This implies that those governments that have the most control over agendas in parliamentary committees are rewarded for worse performance on these economic measures, while those who need to compromise with opposition parties are punished for these outcomes. The final row, however, finds that fully 102 of the 108 estimated regressions including unemployment produce coefficients in which both the constitutive and interactive terms are correctly signed, though only one set produced statistically significant marginal effects.

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Table B.5: Coefficient signs for Weak Party Cohesion interactions with Economic Performance

	Growth	Inflation	Unemployment
Only β_1 Correct	15 (0)	0	92 (2)
Only β_3 Correct	0	28 (0)	0
Neither β_1 nor β_3 Correct	81 (42)	48 (0)	3 (0)
Both β_1 & β_3 Correct	12 (0)	32 (0)	13 (0)

Finally, Table B.5 shows the moderating effects of weak party cohesion on economic voting. The first row shows that the vast majority of constitutive unemployment coefficient estimates (92) were correctly signed, but paired with an incorrectly signed interactive coefficient, of which two produced statistically significant marginal effects. From the second row, we can see that there were no sets of coefficients including either growth or unemployment that had an incorrectly signed constitutive term and correctly signed interactive term, but there were 28 such sets of coefficients that included inflation. The third row shows that a plurality of the coefficients that consider inflation (48) and a large majority of the coefficient sets with growth (81) estimated both the constitutive and interactive terms to be incorrectly signed. While these numbers are similar to those in Tables B.2 and B.4, the number of incorrectly signed sets that were statistically significant in these earlier models was negligible. As can be seen in the first cell of the third row, the majority of those sets of incorrectly signed coefficients including growth–and nearly a majority of all estimated coefficient sets–are statistically significant, with 42 statistically significant perverse marginal effects. The final row indicates that a sizable number of estimated sets of inflation coefficients (32) were correctly signed, but few growth (12) or unemployment (13) were correctly signed, and there were none that were statistically significant.

APPENDIX C

Election Types and Descriptions

Country	Date	Type	Description
Australia	1972-12-2	End-of-term	——
Australia	1974-5-18	Premier-timed	Whitlam facing opposition in the Senate and a government loss on three supply (budget) bills, asked for a double dissolution from the Governor-General, which was granted.
Australia	1975-12-13	Opposition-timed	Governor-General dismissed PM Whitlam following a five-week standoff between Liberal-National controlled Senate and Government over supply bill.

Country	Date	Type	Description
Australia	1977-12-10	Premier-timed	PM Fraser requested that House of Representatives be dissolved to synchronize balloting with regularly scheduled election of half of Senate.
Australia	1980-10-18	End-of-term	——
Australia	1983-3-5	Premier-timed	PM Fraser requested a double-dissolution to overcome the two houses' inability to agree on a number of economic bills and the strong Labour opposition to national wage freeze to address economic problems.
Australia	1984-12-1	Premier-timed	PM Hawke said he called for early election of House of Representatives to allow voters to pass judgment on the government and renew its mandate.
Australia	1987-7-11	Premier-timed	PM Hawke requested a double-dissolution to address the Senate's rejection of the government's tax reform plan.

Country	Date	Type	Description
Australia	1990-3-24	Premier-timed	PM Hawke dissolved House of Representatives in order to synchronize the election with the Senate election. Viewed by many as a response to Liberal-National disorganization.
Australia	1993-3-13	End-of-term	——
Australia	1996-3-2	End-of-term	——
Australia	1998-10-3	Premier-timed	PM Howard called a snap election following announcements of tax reforms, fears of a deteriorating economy, and leveling of opinion polls with the opposition ALP.
Australia	2001-11-10	End-of-term	——
Australia	2004-10-9	End-of-term	——
Australia	2007-11-24	End-of-term	——
Australia	2010-8-21	Premier-timed	Following an internal challenge to PM Rudd, PM Julia Gillard called new elections 2 months after coming to power.
Austria	1970-3-1	End-of-term	——
Austria	1971-10-10	Premier-timed	SPÖ minority government dissolved parliament following the withdrawal of outside support by the FPÖ in July.

Country	Date	Type	Description
Austria	1975-10-5	End-of-term	——
Austria	1979-5-6	Premier-timed	Chancellor Kreisky called early elections following the government's loss on a national referendum to open the country's first nuclear power plant.
Austria	1983-4-24	End-of-term	——
Austria	1986-11-23	Premier-timed	The SPÖ ended its coalition with the smaller FPÖ following the FPÖ's perceived shift to the right with the election of Jorg Haider as its leader.
Austria	1990-10-7	End-of-term	——
Austria	1994-10-9	End-of-term	——
Austria	1995-12-17	Opposition-timed	Junior coalition partner (ÖVP) withdrew from coalition with SPÖ. The coalition agreement between the parties tied the fate of the parliament to the tenure of the government; the dissolution of the government forced Chancellor Vranitzky to call early elections.
Austria	1999-10-3	End-of-term	——

Country	Date	Type	Description
Austria	2002-11-24	Opposition-timed	An internal coup in the junior coalition FPÖ party that returned Jorg Haider to lead the party made it a party the ÖVP could no longer work with. Following the dissolution of the government, Chancellor Schuessel asked the parliament to vote on dissolution, which it approved.
Austria	2006-10-1	End-of-term	——
Austria	2008-9-28	Opposition-timed	Following prolonged policy disagreements between the grand coalition of the SPÖ and ÖVP, the junior ÖVP withdrew from the coalition, forcing a dissolution of parliament as per the coalition agreement tying the survival of the parliament to the survival of the government.

Country	Date	Type	Description
Belgium	1968-3-31	Early other	A constitutional change in the federal structure of the state led to an automatic dissolution of the parliament, because constitutional changes need to be passed by two parliaments with an election between them.
Belgium	1971-4-17	Early other	Parliament was dissolved following the First State reform establishing the cultural communities by the Belgian constitution in 1970. Any amendment of the constitution requires the dissolution of the parliament and the amendment passed again by the subsequent parliament.

Country	Date	Type	Description
Belgium	1974-3-10	Opposition-timed	The three-party coalition fell in a crisis over Iran's withdrawal from a joint refinery project with Belgium. When King Baudoin asked Tindemans to form another government, his attempts failed due to the French speaking group in his party's failure to support the government.
Belgium	1977-4-17	Opposition-timed	PM Tindemans dissolved parliament shortly after expelling two of his RW coalition partners' cabinet ministers after their refusal to support the government's budget proposal. The RW left the government, leaving it short of a majority by two seats, and so the prime minister dissolve parliament.
Belgium	1981-11-8	Premier-timed	Government resigned following prolonged internal disputes over economic and industrial policies.
Belgium	1985-10-13	End-of-term	——

Country	Date	Type	Description
Belgium	1987-12-13	Premier-timed	Government resigned over inability to address linguistic dispute.
Belgium	1991-11-24	End-of-term	——
Belgium	1995-5-21	Premier-timed	PM Dehaene called early elections to obtain a mandate for his austerity program and to reduce the damage of his Socialist coalition partners' corruption scandal on the government.
Belgium	1999-6-13	End-of-term	——
Belgium	2003-5-18	End-of-term	——
Belgium	2007-6-10	End-of-term	——
Belgium	2010-6-3	Opposition-timed	PM Leterme forced to resign following the Open VLD's withdrawal from the the coalition over a dispute surrounding the voting rights of the Brussels-Halle-Vilvoorde constituency.
Canada	1972-10-30	End-of-term	——

Country	Date	Type	Description
Canada	1974-7-8	Opposition-timed	PM Trudeau lost a motion of confidence in respect to the budget, initiated by the Progressive Conservatives from opposition.
Canada	1979-5-22	End-of-term	——
Canada	1980-2-18	Opposition-timed	PM Clark lost a motion of confidence with respect to the budget, initiated by the New Democratic Party from opposition.
Canada	1984-9-4	End-of-term	——
Canada	1988-11-21	Premier-timed	PM Mulroney called early elections in October 1988.
Canada	1993-10-25	End-of-term	——
Canada	1997-6-2	Premier-timed	PM Chrétien announced early elections, a move seen as motivated by a desire to secure a new mandate in advance of the proposed Quebec independence referendum.
Canada	2000-11-27	Premier-timed	Though preceded by a cabinet reshuffle, it appeared to a premier-timed election to secure a third straight term.

Country	Date	Type	Description
Canada	2004-6-28	Premier-timed	Followed the beginning of the sponsorship scandal in which the ruling Liberal Party was accused of distributing $250 million in advertising firms friendly to the LP, PM Martin called early elections.
Canada	2006-1-23	Opposition-timed	Government lost a vote of confidence put forward by opposition legislators after PM Martin refused to resign following the full revelation of the sponsorship scandal.
Canada	2008-10-14	Premier-timed	PM Harper dissolved parliament that he presided over with the smallest minority to rule in Canadian history.
Denmark	1971-9-21	Premier-timed	PM Baunsgaard called elections 4 months early due to the unpopularity of winter elections and the need for a public pronouncement on joining the EC.

Country	Date	Type	Description
Denmark	1973-12-4	Premier-timed	PM Joergensen dissolved parliament following the minority government's loss on a bill to increase homeowner taxes, making his ability to govern questionable.
Denmark	1975-1-9	Premier-timed	The prime minister dissolve parliament after the majority of parliamentary parties opposed his crisis plan of his minority government.
Denmark	1977-2-15	Premier-timed	PM Joergensen dissolved parliament after the opposition failed to agree on economic and housing policies and defense spending.
Denmark	1979-10-23	Premier-timed	Parliament was dissolved following an internal government disagreement about economic policy between the Liberal Party and the Social Democratic party.

Country	Date	Type	Description
Denmark	1981-12-8	Opposition-timed	A majority of 78 against 74 voted to condemn the government's plan to transfer money from pension funds to other government ministries.
Denmark	1984-1-10	Premier-timed	The government resigned following its loss on the Finance Bill.
Denmark	1987-9-8	Premier-timed	The minority coalition government of Prime Minister Schlüter called early elections stating that it was important for the economy to avoid uncertainty about government responsibility.
Denmark	1988-5-10	Premier-timed	Parliament was dissolved following a failure to agree to a foreign policy measure with the Social Democrats.
Denmark	1990-12-12	Premier-timed	PM Schlüter called early elections after the parliament failed to support his tax reform.
Denmark	1994-9-12	End-of-term	——

Country	Date	Type	Description
Denmark	1998-3-11	Premier-timed	PM Rasmussen called elections 6 months early to ask voters if they wanted to maintain the course of the Rasmussen government of the past 5 years.
Denmark	2001-11-20	Premier-timed	Elections were called 4 months early in anticipation of the upcoming European Parliamentary elections.
Denmark	2005-2-8	Premier-timed	PM Rasmussen called for elections 9 months early following an improvement in the polls for the government since the previous fall.
Denmark	2007-11-13	Premier-timed	Elections were called over a year early by PM Rasmussen, ostensibly to allow the parliament to focus on needed welfare reform without the distraction of an election campaign.
Finland	1970-3-15	End-of-term	——

Country	Date	Type	Description
Finland	1972-1-2	Opposition-timed	President Kekkonen ordered the cabinet to step down and new elections to be held following a dispute between the Social Democrats and the Centre Party on the question of agricultural subsidies.
Finland	1975-9-21	Opposition-timed	President Kekkonen ordered the cabinet to step down and new elections to be held due to disputes over regional policies.
Finland	1979-3-18	Early other	By all accounts this was called early to put elections back at their usual time in the Spring after the previous election had been called in early fall. All accounts of the election discuss it as though it were an end-of-term election.
Finland	1983-3-20	End-of-term	——
Finland	1987-3-15	End-of-term	——
Finland	1991-3-17	End-of-term	——
Finland	1995-3-19	End-of-term	——
Finland	1999-3-21	End-of-term	——
Finland	2003-3-16	End-of-term	——
Finland	2007-3-18	End-of-term	——

Country	Date	Type	Description
France	1967-3-12	Premier-timed	President de Gaulle dissolved the parliament 9 months early after his supportive cabinet faced increasing opposition from the Independent Republicans in the Presidential Majority.
France	1968-6-30	Premier-timed	President de Gaulle dissolved the parliament following the student protests and the nearly passed censure vote on the Legislative Assembly's floor.
France	1973-3-4	End-of-term	——
France	1978-3-19	End-of-term	——
France	1981-6-14	Opposition-timed	10 days after the election of Socialist President Mitterrand, he dissolved the Gaullist controlled Legislative Assembly.
France	1986-3-16	End-of-term	——
France	1988-6-5	Opposition-timed	Following Mitterrand's re-election, he dissolved the conservative-leaning parliament.
France	1993-3-21	End-of-term	——

Country	Date	Type	Description
France	1997-5-25	Premier-timed	President Chirac called early elections in an attempt to bolster his supportive government's hold on power.
France	2002-6-9	End-of-term	——
France	2007-6-10	End-of-term	——
Germany	1976-10-3	End-of-term	——
Germany	1980-10-5	End-of-term	——
Germany	1983-3-6	Premier-timed	Chancellor Kohl staged a government failure after the previous SPD-FDP government had broken up and a new CDU-FDP government formed. In order to gain legitimacy for the new coalition, Kohl went to the voters.
Germany	1987-1-25	End-of-term	——
Germany	1990-12-2	Early other	An early election was held after German reunification.
Germany	1994-10-16	End-of-term	——
Germany	1998-9-27	End-of-term	——
Germany	2002-9-22	End-of-term	——
Germany	2005-9-18	Premier-timed	Chancellor Schröder orchestrated a loss of confidence in parliament in order to earn a new mandate from the people.

Country	Date	Type	Description
Germany	2009-9-27	End-of-term	——
Greece	1981-10-18	End-of-term	——
Greece	1985-6-2	Premier-timed	Prime Minister Papandreou called early elections, citing the Cyprus stalemate and questions over the power of the president.
Greece	1989-6-18	End-of-term	——
Greece	1989-11-5	Early other	The elections in June of 1989 produced no majority, and the alliance between New Democracy and the Coalition of Left-Wing and Progressive Forces was formed to govern in the short-term. Following their investigation of the former PASOK government, they called new elections.
Greece	1990-4-8	Early other	The previous election in November 1989 failed to produce a majority, and an all party coalition formed. This coalition collapsed in mid-February following a dispute over military promotions. All parties agreed to an election.

Country	Date	Type	Description
Greece	1993-10-10	Opposition-timed	The government of PM Mitsotakis lost its majority in parliament when several members of the ruling ND party defected to form Political Spring.
Greece	1996-9-22	Premier-timed	PM Simitis called early elections to renew its mandate following the death of former PM Papandreou.
Greece	2000-4-9	Premier-timed	PM Simitis called early elections in the hopes of benefiting from Greece's economic gains.
Greece	2004-3-7	End-of-term	——
Greece	2007-9-16	Premier-timed	PM Karamalis called elections 6 months early as Greece was experiencing economic growth and low unemployment.
Greece	2009-10-4	Premier-timed	PM Karamalis called elections to seek a mandate to steer the country through the economic crisis.

Country	Date	Type	Description
Ireland	1973-2-28	Premier-timed	PM Lynch called for early elections on the grounds that they needed a popular mandate to address the Northern Ireland problem and appraise the forthcoming British White Paper on the subject.
Ireland	1977-6-16	Premier-timed	PM Cosgrave dissolved parliament 8 months early under the expectation that the incumbent Fine Gael-Labour coalition would be reelected.
Ireland	1981-6-11	Premier-timed	PM Haughey asked for a dissolution to receive a clear mandate to pursue a political solution to the problem of Northern Ireland.
Ireland	1982-2-18	Opposition-timed	The coalition government lost a budget bill by a single vote, leading to the dissolution of the parliament.
Ireland	1982-11-24	Opposition-timed	PM Haughey's government was defeated twice in confidence motions on 4 November 1982 and the parliament was dissolved the same day.

Country	Date	Type	Description
Ireland	1987-2-17	End-of-term	——
Ireland	1989-6-15	Premier-timed	PM Haughey announced an early election that was interpreted as an attempt to take advantage of the party's high standing in opinion polls.
Ireland	1992-11-25	Opposition-timed	Following the split of the coalition between Fianna-Fail and the Progressive Democrats, PM Reynolds was defeated in a vote of no confidence which led to dissolution.
Ireland	1997-6-6	Premier-timed	PM Bruton called early elections following impressive economic performance but trailing in the polls to his opponents.
Ireland	2002-5-17	End-of-term	——
Ireland	2007-5-24	End-of-term	——

Country	Date	Type	Description
Italy	1972-5-7	Premier-timed	The dissolution of parliament was precipitated by the cabinet's resignation. Much of the cause of discontent in the cabinet arose from the passing of Italy's divorce law in December 1970 and the subsequent referendum on its repeal that put the governing parties at odds.
Italy	1976-6-20	Opposition-timed	Parliament was dissolved by the President of the Republic following a political crisis in which the minority Christian Democratic government failed to obtain the support of the Socialist group in parliament.

Country	Date	Type	Description
Italy	1979-6-3	Opposition-timed	Dissolution followed the fall of two successive minority Christian Democratic governments, both led by Giulio Andreotti. The first fell after the Communists withdrew from the official parliamentary majority of the minority CD government in January 31. The second fell after losing a vote of confidence in the Senate on March 31. When no alternative majority could be formed, the President of the Republic dissolved parliament.
Italy	1983-6-26	Opposition-timed	The withdrawal of the Socialist Party (PSI) from the four-party coalition precipitated early elections. Reports indicate that PSI's leader (Bettino Craxi) had wanted to force elections for the previous year in order to solidify his party's position as the left alternative to the Christian Democratic Party.

Country	Date	Type	Description
Italy	1987-6-14	Premier-timed	The four year-old Craxi government fell in April following the PSI's failure to hand-over leadership to the DC as previously agreed.
Italy	1992-4-5	End-of-term	——
Italy	1994-3-27	Excluded	This election is excluded because the change in the electoral system makes comparison to previous electoral results inappropriate.
Italy	1996-4-21	Premier-timed	The technocratic government of Prime Minister Dini lacked sufficient parliamentary support and withdrew. No alternative government could be formed, and so parliament was dissolved.
Italy	2001-5-13	End-of-term	——
Italy	2006-4-9	End-of-term	——

Country	Date	Type	Description
Italy	2008-4-13	Opposition-timed	The withdrawal of UDEUR from PM Prodi's coalition following a corruption scandal for the party led to a lost vote of confidence. President Napolitano asked Senate President Marini to form an interim government to pass a new electoral law before the next elections. Former PM Berlusconi insisted the country should have snap elections to end the impasse; leader of the UDC, Casini, also called for new elections. Following unsuccessful talks to form an interim government President Napolitano dissolved the parliament.
Japan	1972-12-10	Premier-timed	The House of Representatives was prematurely dissolved at the request of the government.
Japan	1976-12-5	End-of-term	—-

Country	Date	Type	Description
Japan	1979-10-7	Premier-timed	The parliament was dissolved on the initiative of Prime Minister Ohira. In public statements, PM Ohira said he considered his majority of 249 out of 511 MPs (plus the support of independent MPs) too small and that he needed at least 271 seats.
Japan	1980-6-22	Opposition-timed	PM Ohira dissolved parliament following the government's loss of a vote of confidence. The Japan Socialist Party withdrew its support of the government and 70 LDP ministers abstained from the vote, leading to the government's loss.
Japan	1983-12-18	Premier-timed	PM Nakasone decided to dissolve parliament in the wake of political deadlock resulting from the bribery conviction of former LDP Prime Minister Tanaka.

Country	Date	Type	Description
Japan	1986-7-6	Premier-timed	Elections were called 18 months early to coincide with the regular election of half of the House of Councilors with an eye toward regaining the absolute majority of parliamentary seats for the LDP that had been lost in the 1983 election.
Japan	1990-2-18	Premier-timed	Elections were called 5 months before the expiry of the parliament's term by the prime minister, having put off an election in which the LDP expected to experience a significant loss of support.
Japan	1993-7-23	Opposition-timed	PM Miyazawa and his cabinet lost a vote of confidence that had been tabled by the left-wing Social Democratic party of Japan and two smaller opposition parties that had been formed by LDP defectors.

Country	Date	Type	Description
Japan	1996-10-10	Premier-timed	The dissolution of the parliament by PM Hashimoto was widely expected due to a combination of his high popularity and the fact that unpopular tax increases were set to go into effect three months before the mandated expiry of the parliament.
Japan	2000-6-25	Early other	On June 2 PM Mori dissolved the House of Representatives and called for early general elections to be held on June 25. PM wanted to seek a mandate from the people after his predecessor had suffered a stroke.
Japan	2003-11-9	Premier-timed	PM Koizumi dissolved the House of Representatives and scheduled early general elections for Nov. 9. He had been generally expected to move up the election date after he overwhelmingly won the leadership race within the LDP in September 2003.

Country	Date	Type	Description
Japan	2005-9-11	Premier-timed	PM Koizumi dissolved House of Representatives after the House of Councillors failed to pass a bill on postal system reform that would privatize Japan Post and divide it into three separate companies. Koizumi said the election should be seen as a referendum on the reform.
Japan	2009-8-30	End-of-term	——
Luxembourg	1974-5-26	End-of-term	——
Luxembourg	1979-6-10	End-of-term	——
Luxembourg	1984-6-17	End-of-term	——
Luxembourg	1989-6-18	End-of-term	——
Luxembourg	1994-6-12	End-of-term	——
Luxembourg	1999-6-13	End-of-term	——
Luxembourg	2004-6-13	End-of-term	——
Luxembourg	2009-6-7	End-of-term	——
Netherlands	1971-4-28	End-of-term	——
Netherlands	1972-11-29	Opposition-timed	PM Bieshuevel dissolved parliament two months after DS70 withdrew from the cabinet, producing a four-party minority government.
Netherlands	1977-5-25	End-of-term	——

Country	Date	Type	Description
Netherlands	1981-5-26	End-of-term	——
Netherlands	1982-9-8	Opposition-timed	PM van Agt dissolved parliament two months following the Labour Party's (PvdA) withdrawal from the government, forcing the government into minority status. The main dispute that led to withdrawal related to a failure to enact the coalition agreement due to the large budget deficits.
Netherlands	1986-5-21	Premier-timed	PM Lubbers called elections less than 4 months before the mandated expiry of the parliament.

Country	Date	Type	Description
Netherlands	1989-9-6	Opposition-timed	The coalition government fell on May 2 after the parliamentary party of the VVD, the junior coalition partner, had called a debate to object to the financing arrangements of part of a wide-ranging plan to reduce environmental pollution. The package had been agreed by the cabinet, including 5 VVD ministers, 3 days earlier. The VVD abandoned its confidence in the Cabinet due to a difference of opinion about a section of the scheme to finance the National Environment Plan.
Netherlands	1994-5-3	End-of-term	——
Netherlands	1998-5-6	End-of-term	——
Netherlands	2002-5-15	End-of-term	——

Country	Date	Type	Description
Netherlands	2003-1-22	Opposition-timed	General elections were held after the resignation of the Prime Minister in October 2002. Elections followed the collapse of the government in October 2002 when bitter infighting in the far-right Lijst Pim Fortuyn party had paralyzed the three-party governing coalition. The LPF withdrew from the government and the remaining 2 parties said they would stay on as a minority government until a new election could be held.
Netherlands	2006-11-22	End-of-term	——
Netherlands	2010-6-9	Opposition-timed	The PvdA's withdrawal from the government over the extension of Dutch troops NATO activities in Aghanistan led to a dissolution of the parliament six months before the expiry of its term.
New Zealand	1969-11-29	End-of-term	——
New Zealand	1972-11-25	End-of-term	——
New Zealand	1975-11-29	End-of-term	——

Country	Date	Type	Description
New Zealand	1978-11-25	End-of-term	——
New Zealand	1981-11-28	End-of-term	——
New Zealand	1984-7-14	Premier-timed	PM Muldoon, while visibly drunk, called for an ealry dissolution of parliament after an MP from his National Party announced she planned to vote against the government on an opposition sponsored anti-nuclear bill.
New Zealand	1987-8-15	End-of-term	——
New Zealand	1990-10-27	End-of-term	——
New Zealand	1993-11-6	End-of-term	——
New Zealand	1996-10-12	End-of-term	——
New Zealand	1999-11-27	End-of-term	——
New Zealand	2002-7-27	Premier-timed	PM Helen Clark called elections four months early while her Labour Party was above 50 percent in the polls and her coalition partner, the Alliance, was disintegrating.
New Zealand	2005-9-17	End-of-term	——
New Zealand	2008-11-8	End-of-term	——

Country	Date	Type	Description
Portugal	1979-12-2	Opposition-timed	President Eanes dissolved parliament on the advice of the Council of the Revolution (cabinet), since the minority and non-partisan governments had fallen quickly.
Portugal	1980-10-5	Early other	Even though elections had occurred the previous year, an election was required under the 1976 constitution, article 174 stating that each legislative period is to last 4 years and any premature dissolution does not begin a new full legislative period.
Portugal	1983-4-25	Premier-timed	PM Pinto Balsemao resigned following his Social Democratic Party's heavy losses in local elections. With no alternative governing majority, President Eanes dissolved the parliament.

Country	Date	Type	Description
Portugal	1985-10-6	Opposition-timed	The PSD withdrew from the coalition government with the Socialist Party, and PM Soares formally issued the cabinet's resignation 12 days later. The government stayed in office until the ratification of the accession treaty into the EC.
Portugal	1987-7-19	Opposition-timed	The minority Social Democratic government was brought down by a censure vote. The resulting political crisis led to President Soares' dissolution of the parliament.
Portugal	1991-10-6	End-of-term	——
Portugal	1995-10-1	End-of-term	——
Portugal	1999-10-10	End-of-term	——
Portugal	2002-3-17	Premier-timed	Socialist PM Guterres resigned from office following his party's defeat in local elections, resulting in the calling of new elections.

Country	Date	Type	Description
Portugal	2005-2-20	Opposition-timed	Social Democratic PM Lopes' coalition government lacked parliamentary confidence. President Sampaio (Socialist Party) dissolved parliament citing instability and distrust between society and the state.
Portugal	2009-9-27	End-of-term	——
Spain	1982-10-28	Opposition-timed	The defection of many of the minority UDC government's MPs and the party's weak showings in Andalusians elections eroded the government's hold on power, leading to early dissolution.
Spain	1986-6-23	Premier-timed	Elections were held four months early, following the success of a government sponsored referendum on staying in NATO. The date of the election also allowed it to be held concurrently with the Andalusian regional assembly's election.

Country	Date	Type	Description
Spain	1989-10-29	Premier-timed	PM Gonzalez Marquez called elections early, citing the need for Spain to prepare for the European Single Market's implementation in 1992.
Spain	1993-6-6	Premier-timed	PM Gonzalez called for parliament's dissolution, citing tense political climate and the need for a new mandate to carry out major economic reforms.
Spain	1996-3-3	Opposition-timed	Following the loss of allied support, the government's budget failed to pass. Prime Minister Gonzalez Marquez announced early general elections.
Spain	2000-3-12	End-of-term	——
Spain	2004-3-14	End-of-term	——
Spain	2008-3-9	End-of-term	——
Sweden	1970-9-20	Early other	Elections were called early following the constitutional reforms of 1969 that created a unicameral parliament, dissolving the upper house.
Sweden	1973-9-16	End-of-term	——
Sweden	1976-9-19	End-of-term	——
Sweden	1979-9-16	End-of-term	——

Country	Date	Type	Description
Sweden	1982-9-19	End-of-term	——
Sweden	1985-9-15	End-of-term	——
Sweden	1988-9-18	End-of-term	——
Sweden	1991-9-15	End-of-term	——
Sweden	1994-9-18	End-of-term	——
Sweden	1998-9-20	End-of-term	——
Sweden	2002-9-15	End-of-term	——
Sweden	2006-9-17	End-of-term	——
Sweden	2010-9-19	End-of-term	——
United Kingdom	1970-6-18	Premier-timed	PM Wilson requested that the Queen proclaim a premature dissolution of the parliament in the midst of economic recovery but failed social and labor policies.
United Kingdom	1974-2-28	Premier-timed	PM Heath called early elections after calling a state of emergency and imposing a three-day work week as a result of the national coal-miners strike.

Country	Date	Type	Description
United Kingdom	1974-10-10	Premier-timed	PM Wilson announced early elections. His Labour Party controlled a minority in the House of Commons (only two seats more than the Conservative Party), which made ruling during turbulent economic and social conditions particularly difficult.
United Kingdom	1979-5-3	Opposition-timed	Following a lost vote of no confidence, PM Callaghan called for a dissolution of the parliament.
United Kingdom	1983-6-9	Premier-timed	PM Thatcher called early elections in an effort to improve her Conservative Party's share of parliamentary seats and to "serve the national interest."
United Kingdom	1987-6-11	Premier-timed	PM Thatcher dissolved parliament a year early following strong showings in local elections and an economic upswing.
United Kingdom	1992-4-9	End-of-term	——
United Kingdom	1997-5-1	End-of-term	——

Country	Date	Type	Description
United Kingdom	2001-6-7	Premier-timed	Elections were called a year early and coincided with local elections in England and Northern Ireland.
United Kingdom	2005-5-5	Premier-timed	PM Blair called for early elections.
United Kingdom	2010-5-6	End-of-term	——

APPENDIX D

An Alternative Approach: Causal Mediation Analysis

The Imai et al. framework (e.g., Imai, Keele and Yamamoto, 2010; Imai, Tingley and Yamamoto, 2013; Tingley et al., 2013) attempts to establish the causal relationship between a treatment variable, a psychological mediator, and an outcome variable in experimental work. This method uses a potential outcomes framework in which a mediating variable takes on a potential value $M_i(t)$ for unit i under treatment $T_i = t$, where $Y_i(t, m)$ denote the potential outcome that would result if the treatment and mediating variables take on values of t and m, respectively. Because we only observe one of the potential outcomes–the one in which $Y_i = Y_i(T_i, M_i(T_i))$, where $M_i(T_i)$ is the observed value of the mediator–we cannot directly observe the total treatment effect $(\tau_i \equiv Y_i(1, M_i(1)) - Y_i(0, M_i(0)))$ for any individual. τ_i can be decomposed into two parts, the *causal mediation effects*

$$\delta_i(t) \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0))$$

for each treatment status $t = 0, 1$. All other causal mechanisms are captured in the *direct effects* of the treatment

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$$\zeta_i(t) \equiv Y_i(1, M(t)) - Y_i(0, M_i(t))$$

for each unit and each treatment status $t = 0, 1$. Together, these sum to $\tau_i = \delta_i(t) + \zeta_i(1 - t)$ for $t = 0, 1$. The population averages of these effects are represented by the average causal mediation effect (ACME) $\bar{\delta}(t)$ and the average direct effects (ADE) $\bar{\zeta}(t)$.

In order to estimate these effects, the mediating variable is regressed on the treatment variable, as well as any pre-treatment confounders. Then, the outcome variable is regressed on both the treatment and mediating variable. The ACME and ADE are calculated using 500 simulations of these estimates which are then used to compute confidence intervals around these values.

The identification of the ACME requires only two assumptions: strong ignorability of the treatment and sequential ignorability. While we have reason to expect that the strong ignorability assumption is valid, there is no way to ensure that the sequential ignorability assumption is valid. Imai, Keele and Yamamoto (2010) have developed a sensitivity analysis that estimates the range of values of a sequential ignorability violation that would reverse the direction of the estimated ACME and ADE. The mediation package in R allows us to estimate the ACME, ADE, and to test for violations of sequential ignorability.

The results of the causal mediation analysis testing the effects of benchmarked unemployment on the change in the prime minister's vote share are shown in Table D.1. Because the first stage of the causal mediation effect requires the use of OLS estimation, the indicators of premier- and opposition-timed are compressed into a single variable, $Type$, which equals -1 for opposition-timed elections, 0 for end-of-term elections, and +1 for premier-timed elections. The first section of Table D.1 shows the results of a linear regression of $Type$ on $NationalUnemployment$. In both models, an increase in the unemployment rate over the OECD's average unemployment rate increases the likelihood of a premier-timed election. The direction of this relationship

is somewhat puzzling, given that the expected negative relationship was found in earlier analyses of election type in Chapter 4. At least two possible explanations for this finding are evident. The first is that prime ministers anticipate further deterioration in their benchmarked unemployment rates and so call elections before that information is revealed (Smith, 2004). The second possible reason is that given that a single mediating variable incorporating two very different data generating processes has to be used here, the positive relationship may be an artifact of model design, which is more problematic for inference. If $Type$ is problematic with respect to its relationship with the treatment variable but not with its relationship to the outcome variable, we may end up correctly estimating the indirect effects but incorrectly estimating the direct effects of unemployment.

In model 1, we see that clarity of responsibility has no discernible impact on the type of election voters face. However, the positive coefficient on $Power$ in model 2 suggests that it is the power to call early elections, not other types of institutional constraints, that affect election type.

The second half of Table D.1 shows that neither the type of election nor benchmarked unemployment rates significantly affect the election's outcome in either model. While both the unemployment rate and the type of election are signed correctly, neither achieves statistical significance.

Clarity of responsibility has a significant and negative effect as expected in the literature: a one point increase in clarity of responsibility leads to a nearly one point decrease in vote share, *ceteris paribus*. The effective number of parliamentary parties is negatively related to changes in vote share. An increase of one additional party in parliament decreases the prime minister's party's vote share by nearly 2 percentage points. The prime minister's party's previous vote share is negatively related to changes in vote share. That is to say that larger parties that see smaller changes in vote share from election to election.

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The bottom of Table D.1 shows the average causal mediation effects and average direct effects. Because the treatment variable $UnemploymentRate$ is continuous, the ACME reported is in fact the average of two estimates of ACME at "control" and "treatment" values. Those shown in the Table D.1 were calculated using the values of $UnemploymentRate$ at the 25th and and 75th percentiles, -2 and 2 percentage points respectively. Estimates using the median value of unemployment (-0.1) as the "control" value produced substantively similar results and are available in the online appendix. As one would suspect from the lack of significant effects in the regression of change in vote share on election type and unemployment rate, the ACME and ADE are both statistically insignificant.

These results are not as hypothesized above. Though I posited that there was reason to expect no direct effect of unemployment on vote share, the lack of an indirect effect as well is more troubling. It may be that the disproportionality between votes and seats is what is driving these null results.

Estimates using seat share as an alternative dependent variable is shown in Table D.2. The first column of Table D.1 shows the results of a linear regression of $Type$ on $UnemploymentRate$. This model is identical to the first section in Table D.1 with the replacement of the prime minister's party's previous vote share with her party's seat share. Once again, $Unemployment$ has a positive and significant effect on the type of election in both models. Clarity of responsibility has no statistically significant effect, but $Power$ has a positive and statistically significant effect on the type of election, as expected.

The second section of Table D.2 shows the relationship between unemployment, election type, and seat share. In both models, the type of election has a positive and significant effect at the 0.10 level. Premier-timed elections increase the seat share of the incumbent by 1.6 percent over end-of-term elections, while opposition-timed elections harm them by the same magnitude. Benchmarked unemployment has a

Table D.1: Average Causal Mediation Effect of Unemployment on Change in PM's Vote

	Effect of Unemployment on Election Type	
	(1)	(2)
National Unemployment	0.032**	0.028*
	(0.012)	(0.012)
Clarity	0.019	
	(0.046)	
Eff. No. Parliamentary Parties	0.022	0.012
	(0.037)	(0.037)
Left Government	-0.137	-0.130
	(0.082)	(0.081)
Vote Share^{t-1}	0.004	0.001
	(0.005)	(0.005)
Power		0.157**
		(0.053)
Minority Government		-0.056
		(0.085)
Coalition Government		-0.057
		(0.101)
Constant	0.102	0.297
	(0.308)	(0.281)
Effect of Unemployment on Prime Minister's Vote Share		
Type	0.713	0.743
	(0.653)	(0.671)
National Unemployment	-0.069	-0.127
	(0.123)	(0.121)
Clarity	-0.909†	
	(0.466)	
Eff. No. Parliamentary Parties	-1.738***	-1.500***
	(0.374)	(0.387)
Left Government	0.408	0.213
	(0.837)	(0.846)
Vote Share^{t-1}	-0.332***	-0.342***
	(0.048)	(0.052)
Power		-0.206
		(0.555)
Minority Government		1.437
		(0.884)
Coalition Government		-0.359
		(1.047)
Constant	17.955***	14.562***
	(3.109)	(2.939)
Average Mediated and Direct Effects of Unemployment on Change in Prime Ministerial Vote Share		
	(1)	(2)
Average Causal Mediated Effect	0.095	0.079
	(-0.137, 0.391)	(-0.119, 0.321)
Average Direct Effect	-0.282	-0.518
	(-1.482, 0.920)	(-1.739, 0.656)
N	245	245

All estimates computed with R package *mediate* using 500 simulations. ACME and ADE estimates computed at 25th and 75th percentiles of treatment comparative unemployment, -2 and 2 points, respectively. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$.

negative effect on seat share, significantly so in model 4. These findings are much more in line with the expectations described in section 1.

Increased clarity of responsibility has a negative effect on vote share, a finding that is significant at the 0.10 level. Previous seat share is a strong, positive predictor of current seat share, as predicted by the literature. Approximately 67 percent of a party's current vote share is predicted by its previous vote share. Finally, leaders of minority governments receive a bump in seats.

The final section of Table D.2 shows the estimated ACME and ADE. Both estimates of ACME just miss statistical significance at the 0.1 level, but the estimates of the ADE in model 4 are statistically significant at the 0.1 level. This evidence is somewhat supportive of the arguments presented at the beginning of this chapter. Direct effects of the economy can be found for an outcome relatively near to the voter: seat share is quite closely related to vote share in most of the countries in this sample. However, the weakness of the indirect effects remains a challenge to theory.

If politicians are most concerned with who controls the prime minister's office, then we would expect the indirect effects of the economy to be strongest here and, importantly, the direct effects to be particularly weak. Table D.3 shows the estimated results for the prime minister's retention. The first section of Table D.3 shows the estimated regression of $Type$ on $UnemploymentRate$. Again, the benchmarked unemployment rate and $Power$ have positive and significant effects on election type.

Unlike the previous cases, the second stage of this causal mediation analysis uses a probit regression instead of linear regression. $Type$ has the expected positive and significant effect on retention in both models. Unemployment has a negative and significant effect in model 6. The ACME in both models 5 and 6 is statistically significant at the 0.05 and 0.1 levels, respectively. Notably, the ADE fails to achieve statistical significance, as predicted above. This means that the economy's main influence on prime ministerial retention is through the mechanism of election type.

Table D.2: Average Causal Mediation Effect of Unemployment on Prime Ministerial Seat Share

	(3)	(4)
Effect of Unemployment on Election Type		
National Unemployment	0.035**	0.029*
	(0.012)	(0.011)
Clarity	-0.010	
	(0.049)	
Eff. No. Parliamentary Parties	0.030	0.017
	(0.36)	(0.038)
Seat Share$_{t-1}$	0.623	0.003
	(0.403)	(0.424)
Power		0.157**
		(0.053)
Minority Government		-0.039
		(0.089)
Coalition Government		-0.009
		(0.104)
Constant	-0.060	0.051
	(0.264)	(0.285)
Effect of Unemployment on Prime Ministerial Seat Share		
Type	1.638†	1.617†
	(0.953)	(0.979)
National Unemployment	-0.267	-0.352*
	(0.180)	(0.176)
Clarity	-1.343†	
	(0.719)	
Eff. No. Parliamentary Parties	-1.354*	-1.179*
	(0.538)	(0.563)
Seat Share$_{t-1}$	0.683***	0.668***
	(0.060)	(0.064)
Power		0.291
		(0.807)
Minority Government		2.738*
		(1.337)
Coalition Government		0.195
		(1.566)
Constant	15.590***	12.617**
	(3.897)	(4.286)
Average Mediated and Direct Effects of Unemployment on Seat Share		
Average Causal Mediation Effect	0.169	0.145
	(-0.066, 0.475)	(-0.085, 0.472)
Average Direct Effect	-0.804	-1.059†
	(-1.881, 0.233)	(-2.105, 0.045)

This is suggestive evidence in favor the theory presented in this chapter.

However, in order to increase certainty in the validity of these results, Figures D.1 - D.4 show the estimated ACME for the election mediator against differing values of the sensitivity parameter, ρ under the control and treatment conditions of the treatment variable. Figures D.1 and D.2 show the control and treatment sensitivity analyses, respectively, for the ACME in model 5 of Table D.3; Figures D.3 and D.4 show the control and treatment sensitivity analyses, respectively, for the ACME in model 6 of Table D.3 The dotted horizontal line is the estimated value of the ACME while the solid line traversing the diagonal shows the point estimates of the ACME at each value of ρ. If ρ takes on any value to the left of this solid line's intersection with the x-axis, the sign of the ACME will remain unchanged. The grey band surrounding the point estimates is the 95% confidence region. Values of ρ in the region where the grey band intersects the x-axis are those in which the true value of the ACME could be zero. Figures D.1 and D.2 demonstrate that any value of ρ less than 0.16 will continue to produce an ACME with the same (negative) sign as that estimated above. The values of rho where the 95 percent confidence band encompasses zero are from 0.03 to 0.26. Figures D.3 and D.4 show that any value of ρ less than 0.14 will produce an ACME in the same direction as that estimated above. The region in which the 95 percent confidence band encompasses zero ranges from -0.01 to 0.26 for the results in Table D.3.

These figures indicate that the results above are relatively sensitive to the violation of the sequential ignorability assumption of the causal mediation effects models. In general, only if ρ is negative will the ACME relationship retain its current sign. However, the consistently signed ACMEs and ADEs across the three dependent variables ought to bolster confidence in these early findings. Further, the significance of the ADE in the case of seat share but its lack of significance where prime ministerial retention is concerned provides additional support for the theory put forth in this

chapter. Because the economy has a direct effect on the outcome voters have more control over but has only an indirect effect through the type and timing of elections on the outcome with which politicians are most concerned is as predicted.

While these findings are promising, they are not particularly robust to violations of the sequential ignorability assumption. Omission of pre-treatment covariates could be a substantial problem. As such, addition pre-treatment predictors of election type ought to be considered and included in both stages. Additionally, the lack of post-treatment covariates could also be weakening results. Because these methods were designed for experimental settings, where concerns about post-treatment confounders is less problematic due to the short time between treatment, mediation, and outcome, post-treatment covariates cannot be included in the analyses. However, with election outcomes, particularly prime ministerial retention, other factors affecting the outcome may arise between the realization of the type of election and the outcome. These concerns should spur further methodological work on the issue of including post-treatment confounders in mediation models with an eye toward their use in observational settings. These results, however, are broadly in line with the main findings of Chapter 5, found in Table 5.2

Table D.3: Average Causal Mediation Effect of Unemployment on Prime Ministerial
Retention

Effect of Unemployment on Election Type		
	(5)	(6)
National Unemployment	0.033**	0.029*
	(0.012)	(0.012)
Clarity	0.015	
	(0.046)	
Eff. No. Parliamentary Parties	-0.004	0.001
	(0.029)	(0.032)
Power		0.162**
		(0.052)
Minority Government		-0.058
		(0.086)
Coalition Government		-0.042
		(0.096)
Constant	0.278†	0.264*
	(0.147)	(0.104)
Mediating Effect of Election Type and Unemployment on Prime Ministerial Retenti		
Election Type	0.337*	0.278*
	(0.137)	(0.227)
National Unemployment	-0.039	-0.040
	(0.026)	(0.025)
Clarity	0.065	
	(0.097)	
Eff. No. Parliamentary Parties	0.020	0.001
	(0.060)	(0.069)
Power		0.253
		(0.115)
Minority Government		-0.218
		(0.184)
Coalition Government		0.035
		(0.206)
Constant	-0.108	0.039
	(0.060)	(0.227)
Average Mediated and Direct Effects of Unemployment on Prime Ministerial Retent		
Average Causal Mediation Effect of Election Type	0.013*	0.012†
	(0.002, 0.029)	(-0.001, 0.030)
Average Direct Effect of Unemployment	-0.045	-0.058
	(-0.100, 0.018)	(-0.130, 0.014)
N	245	245

Estimates computed with R package *mediate* using robust standard errors using 500
simulations. ACME and ADE estimates computed at the 25th and 75th percentiles
of comparative unemployment, -2 and 2 points around the OECD average in that
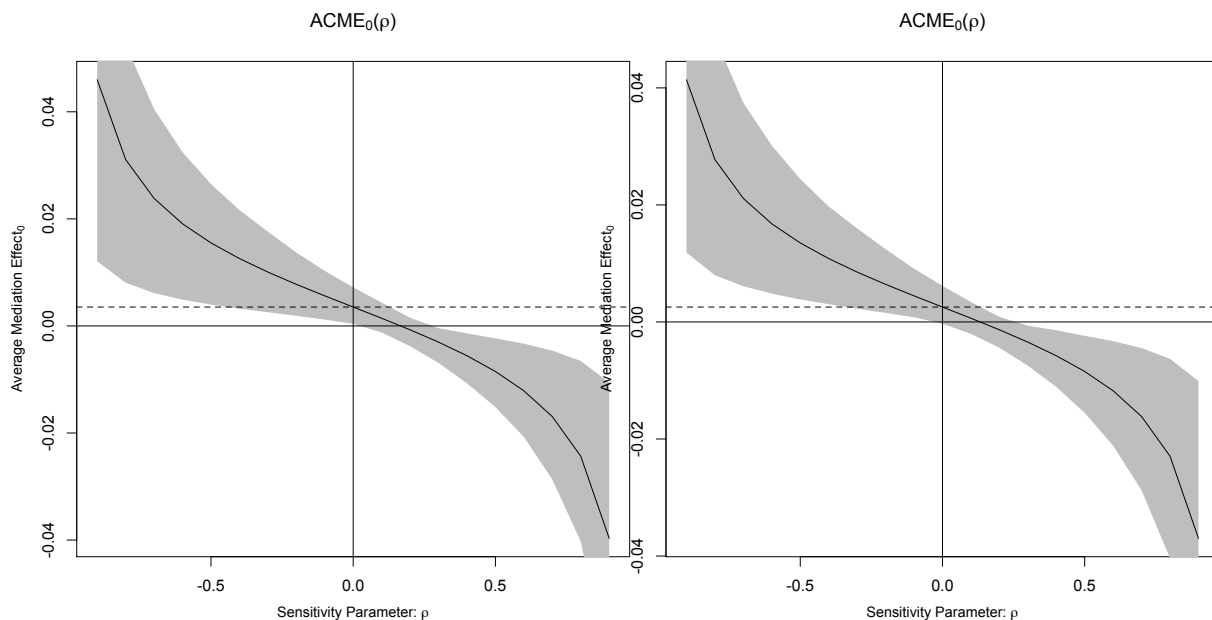year, respectively. ** p < 0.01, * p < 0.05, † p < 0.10.

Figure D.1: Sensitivity analysis of ACME in Table D.3, model 5, control.

Figure D.3: Sensitivity analysis of ACME found in Table D.3, model 6, control.
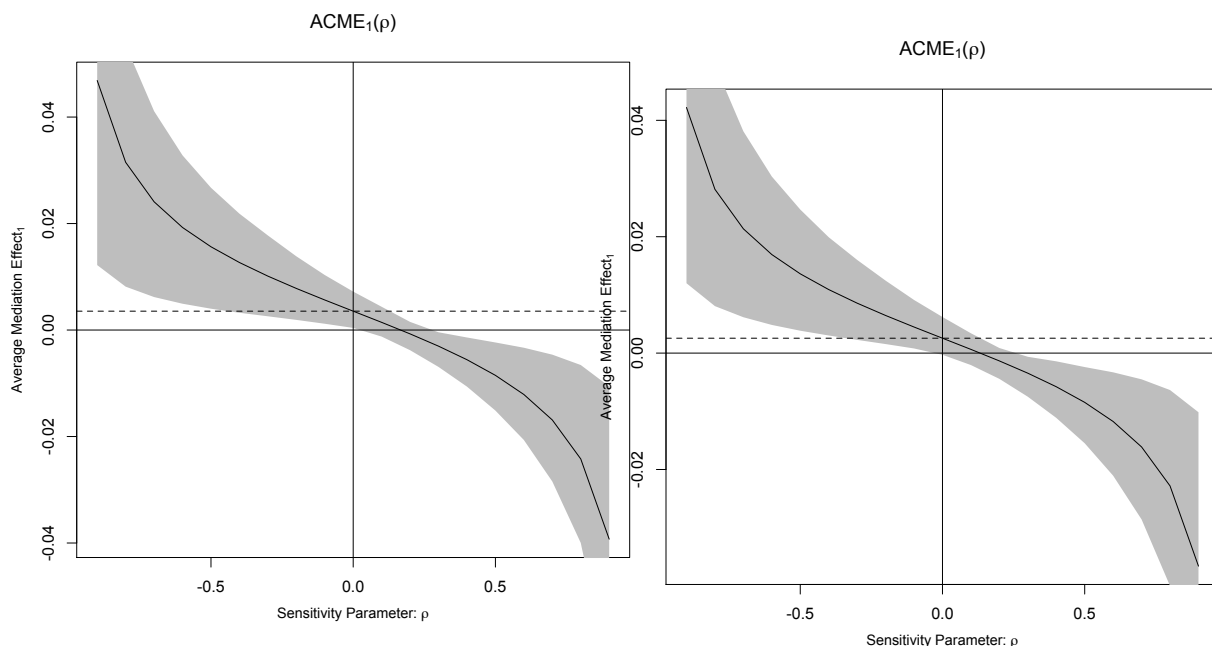

Figure D.2: Sensitivity analysis of treatment condition for ACME in Table D.3, model 5, treatment.

Figure D.4: Sensitivity analysis of ACME found in Table D.3, model 6, treatment.

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