

Chapter 5

Do Early Elections Work?

Election Type as Moderating or Mediating Variable in Election Outcomes

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Abstract

Do early elections produce the outcomes intended by their architects? This chapter tests the assumption that premier timed elections are, in fact, more likely to return the prime minister's party to power and opposition timed elections are less likely to do so. It further establishes the extent to which the state of the macroeconomy directly affects electoral outcomes beyond its indirect effects on the timing of elections. An alternative theoretical relationship in which election type moderates the effect of the economy is tested as well. Using mediation analysis (Imai, Keele and Yamamoto, 2010; Imai, Keele and Tingley, 2010; Imai et al., 2011; Tingley et al., 2013), I show that the state of the economy has a strong indirect on prime ministerial retention through the mediating variable of election type, with little direct effect on election outcomes.

1

¹My sincere thanks to Jenna Bednar, William Roberts Clark, Robert J. Franzese Jr., Jeremy Horowitz, Arthur Lupia, Paul Poast, and Dustin Tingley for helpful comments. All remaining errors are my own.

The previous chapter showed that the institutional and economic circumstances surrounding elections held at the end of a parliamentary term differ from both those called early by the premier and those called early by the opposition. Premier timed elections are called when prime ministers have significant institutional powers to call elections and unemployment is low, 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 (economic vote) and indirect (election type) effects of the economy on election outcomes. I first describe the expectations and hypotheses for the direct and indirect effects of the economy on two measures of electoral performance: incumbent vote 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 and 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. I find that the economy has a strong and significant effect on the retention of the prime minister through their effects on the type of election held. However, elections may also have a moderating effect on the economic vote for the vote and seat shares of incumbents.

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 theories presented in that chapter and in Chapter 2 are 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, and both measures of electoral success: capturing the prime ministership following the election, and increasing 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., Lewis-Beck, 1988; Powell and Whitten, 1993). This is due largely to its focus on how *voters* respond to economic stimuli: because voters directly affect the percentage of total votes a party receives, this was the correct level on which to focus. However, this dissertation focuses on elite goals and behavior. 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. 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 benefit 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 finance (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.

1.1 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 parliamentary majority which ensures that party sole control over government.² Countries with multiparty system tend not to produce

¹While 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.

²Of 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.

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 (ADD CITE).³ What's more, 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. 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.

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 regarding *formateur* 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.

³Multiparty 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.

Hypothesis 1. *Premier timed elections result in higher vote shares for incumbent prime ministerial parties than other types of 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. What's more, by leaving the government the prime minister's party may be unwilling to enter into new governing agreements with that party in the future, thus worsening the party's long-term governing prospects. These parties may also be blamed by voters for withdrawing from their agreement and bringing down a government. However, junior members of a coalition government are often forced to vote for policies disliked by their supporters that may harm them in upcoming elections. This problem of 'selling out' could be a substantial problem for niche parties (e.g., Meguid, 2005), particularly in systems with high thresholds for entry into parliament. 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.

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 2. *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, that 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, 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.

Hypothesis 3. *End of term elections have no systematic relationship with incumbent vote share.*

Direct effects of the economy – those effects that do not work through their effects on 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 premier timed election to be negative.

Hypothesis 4. *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 5. *The effect of the economy, net of its effect on the timing of an election, on vote share is positive.*

Alternatively, 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 end of term elections. 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 6. *The effect of the economy, net of its effect on the decision to hold an end of term election, is positive.*

1.2 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 of the office and policymaking powers of the office make the retention of the prime minister's office 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 (Stevenson, 2008), the choice of election ought to be driven by and related to the subsequent government's leader.

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 7. *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 tradeoffs for opposition parties than premier timed elections do for lead parties. Parties outside of government have some means of influencing policy (e.g., Powell and Whitten, 1993; Strøm, 1990), but generally derive far fewer benefits from the current parliament than cabinet members, and particularly less than the prime minister’s party. 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 tradeoff 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 will opposition timed elections be called.

Hypothesis 8. *Opposition timed elections have a lower likelihood of incumbent prime ministerial retention than both 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.

Hypothesis 9. *End of term elections have no relationship to the likelihood of the incumbent prime minister's retention.*

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. 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 accounting 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 10. *The effect of the economy on the retention of the prime minister, net of its effects on the type of election, is zero.*

Figure 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 providing it 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.

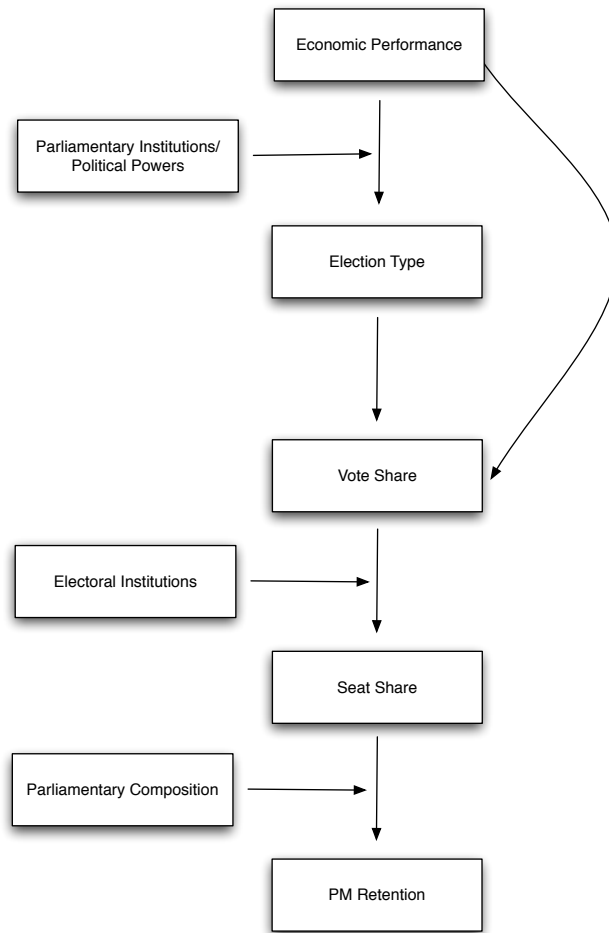


Figure 1: Relationship between economic performance and election outcomes

2 Data and methods

The theory presented in this chapter views elections as mediating the effect of the economy on election outcomes (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). As seen in Chapter 4, 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. Causal 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). This proposed relationship is shown in Figures 2, where economic performance is shown affecting both the type of election held and the election's outcome. The type of election then also affects the election's/prime minister's outcome.

The causal mediation analysis method described by Imai and co-authors (e.g. Imai, Keele and Yamamoto, 2010; Imai, Tingley and Yamamoto, 2013; Tingley et al., 2013) uses a potential outcomes framework in which a mediating variable takes on a potential value $M_i(t)$ for unit i under treatment $T_i = t$. Let $Y_i(t, m)$ 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

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

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. Strong ignorability requires that the treatment be randomized, which allows us to estimate the average total effects. 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 over time, allowing the state of the economy to fulfill 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.

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.

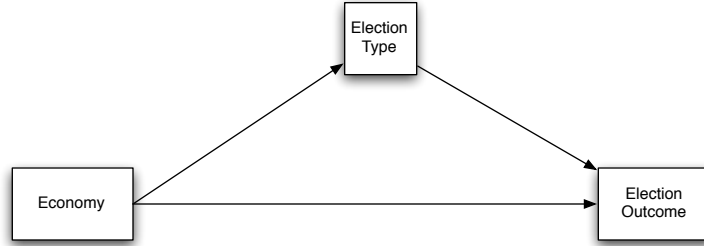


Figure 2: Economic vote mediated by election type

Data In order to test the theory posited above that the type of election voters face mediates the effects of the economy, two dependent variables need to be specified. Consider first the implications of swings in electoral support based on the type of election. While there are implications for the vote shares of both the prime minister’s party and opposition parties, I use the prime minister’s vote share only. 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 are likely to 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 minister⁴ and that less attention is paid to considering alternatives (e.g. Duch and Stevenson, 2008). Electoral support is defined as 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 ($Vote_t - Vote_{t-1}$).

The second dependent variable needed to test the implications of the mediating theory of election types is whether the incumbent prime minister retains her post after the election.

⁴In 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.

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 treatment variable is economic performance. Following (Kayser and Peress, 2012), I measure economic performance as the difference between the performance of the national economy and the OECD average in the year preceding the election. As described in Chapter 2, I expect unemployment to have a more significant effect on election outcomes than GDP growth. This expectation was substantiated in the results of Chapter 4. Below, I present only the results for benchmarked unemployment.⁵

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 term⁶; premier timed elections are elections held more than 90 days prior to the expiry of the parliament and were called by the prime minister⁷; 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. The variable “*Type*” is coded as -1 for opposition timed elections, 0 for end of term elections, and 1 for premier timed elections.

In the previous chapter, we saw that political institutions affect the type of elections

⁵Add growth findings to appendix.

⁶Elections categorized as “other” early elections are folded in with end of term elections in the analyses below.

⁷In 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.

voters face by affecting the ability of politicians to act on their incentives to call elections opportunistically. Below, I use two measures of institutions. The first measure is based on the findings in the previous chapter that constitutional rules allowing the prime minister to call early elections increases the likelihood of premier timed elections, and that the ability of the head of state to call elections unilaterally increases the likelihood of opposition timed elections. The variable “*Power*” is equal to 1 when the prime minister can unilaterally call elections, -1 when the head of state can unilaterally do so, and zero when neither has this power.

The second measure of institutions is “Clarity”, which uses Powell and Whitten’s (1993) definition of institutional clarity of responsibility index. A parliament in which there is a single party government, a majority government, committee chairmanships are allocated only to the parties in government, there is no upper house of parliament controlled by the opposition, and parties are cohesive would be coded as being the most clear. Clarity theoretically ranges from 0 to 4 (though we only observe values from 0 to 3), with higher numbers indicating increased clarity of responsibility and more prime ministerial policy control.

A number of pre-treatment control variables are included in the two estimations. The prime minister’s party’s previous vote share ($VoteShare_{t-1}$), the effective number of parties in parliament (Gallagher and Mitchell, 2011; Laasko and Taagepera, 1979), whether the government was composed largely of left-wing parties, and—when “*Power*” is used to measure institutions—coalition and minority government status. The data includes 245 elections held in 21 countries from 1967 through 2010.

3 Results

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 1. The first section

of Table 1 shows the results of a linear regression of *Type* on *UnemploymentRate*. 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 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.

The bottom of Table 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 1 were calculated using the values of *UnemploymentRate* at the 25th 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.

Though not originally considered, it may be that seat share ought to be considered as a result of economic performance and election type. Gamson’s law suggests that parties with more seats are more likely to become the lead party in a government (Gamson, 1961). If electoral system disproportionality means that winning more votes is not particularly important for winning more seats, it may be that economic performance affects election timing based on how particular areas of the country that are over- or under-represented in parliament are affected is what drives elector timing decisions. As such, politicians would be interested in the effect of the economy on their seat share, and we ought to see evidence of an economic vote for this dependent variable.

Estimates using seat share as an alternative dependent variable is shown in Table 2. The first section of Table 1 shows the results of a linear regression of *Type* on *UnemploymentRate*.

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

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

This model is identical to the first section in Table 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 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 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 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

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

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

direct effects to be particularly weak. Table 3 shows the estimated results for the prime minister's retention. The first section of Table 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. 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 3 - ?? 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 3 and 4 show the control and treatment sensitivity analyses, respectively, for the ACME in model 5 of Table 3; Figures 5 and 6 show the control and treatment sensitivity analyses, respectively, for the ACME in model 6 of Table 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 3 and 4 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 ρ where the 95 percent confidence band encompasses zero are from 0.03 to 0.26. Figures 5

and 6 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 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.

4 An alternative relationship: elections as a moderating variable

While there is suggestive 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 observations of economic performance, as proposed by Smith (2004), this might be observed by negative coefficients on an interaction between premier timed elections and unemployment or a positive

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

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

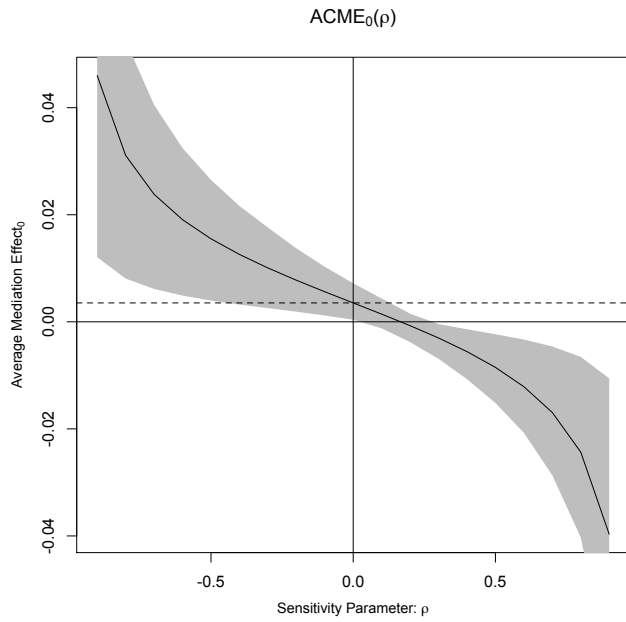


Figure 3: Sensitivity analysis of ACME in Table 3, model 5, control.

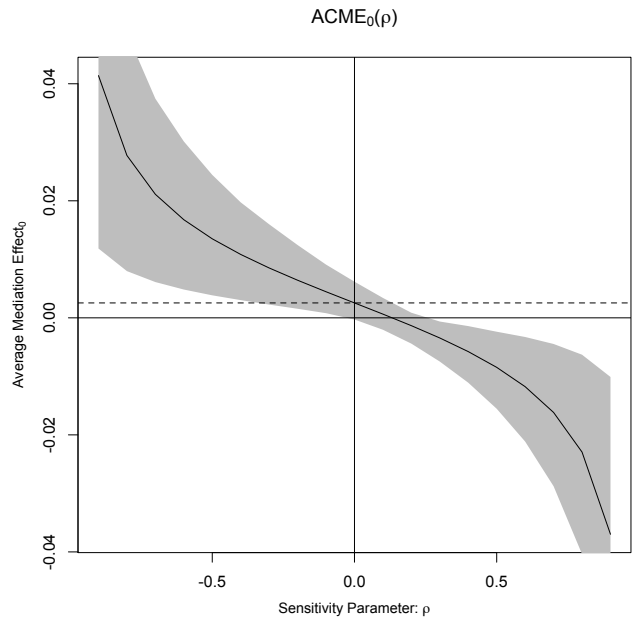


Figure 5: Sensitivity analysis of ACME found in Table 3, model 6, control.

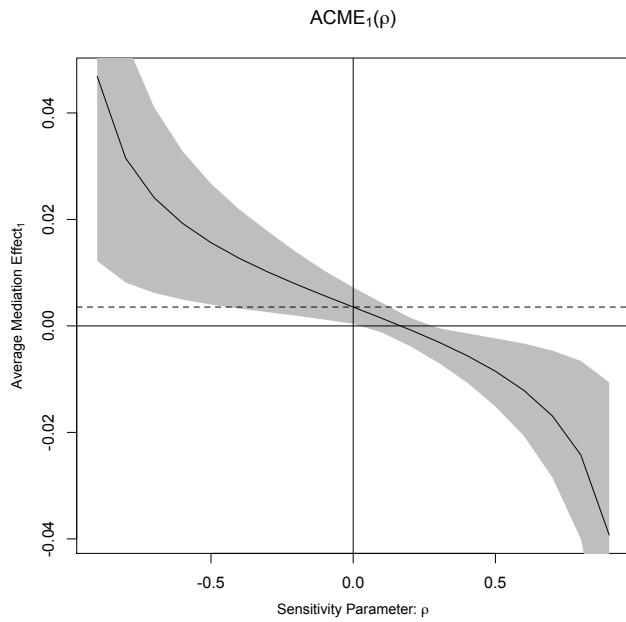


Figure 4: Sensitivity analysis of treatment condition for ACME in Table 3, model 5, treatment.

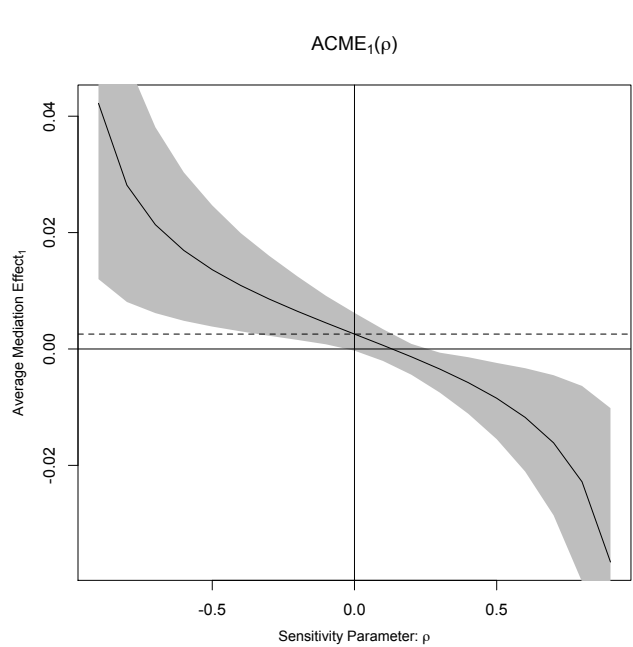


Figure 6: Sensitivity analysis of ACME found in Table 3, model 6, treatment.

coefficient on an interaction between unemployment and opposition timed elections.

To test this view of elections as moderating variables, I have reproduced the second stage regressions from Tables 1 through 3, but includes an interaction term between the type of election and unemployment in Table 4. Instead of having a single linear variable *Type*, I have decomposed it into its constituent parts. This allows for differing magnitudes of the economy's effect in premier timed and opposition timed elections. The first two columns regress the change in vote share on the set of independent variables to mimic the findings in Table 1. We can see from the coefficient on *Unemployment* in both models that unemployment has a negative but insignificant effect on the change in vote share during end of term elections. Both premier timed and opposition timed elections have a positive but statistically insignificant effect on changes in vote share when unemployment is at the OECD average level. The interaction term between unemployment and premier timed elections is positive but statistically insignificant, while that between unemployment and opposition timed elections is negative and highly statistically significant in both models. This means that there is no statistical difference in the relationship of unemployment to vote share between end of term and premier timed elections, but there is a difference between this relationship when comparing end of term and opposition timed elections. However, we cannot tell that the marginal effect of unemployment is statistically significant simply by looking at these coefficients. Table 5 shows the marginal effects for the models in Table 4. While the marginal effects of a one point increase in unemployment over the OECD average on changes in vote share in premier timed elections is statistically insignificant, the effect is negative and statistically significant in opposition timed elections. A one point increase in unemployment over the OECD average produces an approximately 1.4 point loss in support for incumbent prime ministers when elections are called by the opposition.

The third and fourth columns show the regression of seat share on the independent variables from Table 2. Unemployment has a negative and statistically significant effect (at

the 0.1 level) during end of term elections, though the effect is substantively small: at the highest observed unemployment rate in the sample of 14.38 percentage points over the OECD average, this would decrease the incumbents seat share by approximately 7.2 percentage points. The interaction between unemployment and premier timed elections is positive and statistically significant in column three, indicating that there is a statistically significant difference in the relationship between seat share and unemployment when comparing premier timed elections to end of term elections. The interaction term between unemployment and opposition timed elections is negative and statistically significant in both columns, indicating a difference in the relationship between unemployment and seat share among end of term and opposition timed elections. When considering the marginal effects, Table 5 shows that the negative and statistically significant effect of increases in unemployment on seat share found during end of term elections are wiped out in premier timed elections, with no statistically significant effect found. However, the magnitude of the effect of higher than OECD average unemployment rates in end of term elections is magnified under opposition timed elections.

Finally, the last two columns of Table 4 show the results of a logistic regression of prime ministerial retention on the covariates found in the second stage of Table 3. For both models, the effect of unemployment on the continuation of the incumbent prime minister in power is negative and significant. The interaction terms, however, are not statistically significant for either the interaction with premier timed or opposition timed elections, indicating that the type of election that forced the formation of a new cabinet does not alter the impact of unemployment on whether the incumbent prime minister stays in power. However, understanding marginal effects of interactive hypotheses in logistic regressions is particularly difficult, as the predicted probabilities vary in a non-linear fashion across the observed values of *Unemployment*. The marginal effect of *Unemployment* on prime ministerial retention in premier timed elections is only significant when unemployment is between the values of 0.51 and 9.83 percentage points (with an associated change in predicted probability ranging from

Table 4: Election Type as Moderator of the Economic Voting Relationship

	Vote	Vote	Seat	Seat	Retain	Retain
Unemployment	-0.144 (0.180)	-0.170 (0.181)	-0.005 [†] (0.003)	-0.005 [†] (0.003)	-0.108 [†] (0.063)	-0.128* (0.064)
Premier Timed	0.958 (0.842)	0.928 (0.857)	0.020 (0.012)	0.019 (0.012)	0.503 [†] (0.291)	0.404 (0.297)
Opposition Timed	0.848 (1.438)	0.667 (1.449)	0.009 (0.021)	0.008 (0.021)	-0.488 (0.505)	-0.366 (0.513)
Unemp*Premier	0.328 (0.246)	0.277 (0.249)	0.006 [†] (0.004)	0.006 (0.004)	0.104 (0.086)	0.132 (0.089)
Unemp*Opposition	-1.233** (0.450)	-1.338** (0.456)	-0.017 [†] (0.007)	-0.019** (0.007)	-0.061 (0.172)	-0.014 (0.168)
Clarity	-0.917* (0.457)		-0.013 (0.007)		0.109 (0.157)	
Power		-0.207 (0.545)		0.003 (0.008)		0.432* (0.113)
Eff. No. Parl. Parties	-1.901*** (0.369)	-1.649*** (0.380)	-0.015** (0.005)	-0.013* (0.006)	0.034 (0.098)	0.004 (0.113)
Coalition		-0.529 (1.026)		-0.001 (0.015)		0.087 (0.336)
Minority		1.514 [†] (0.870)		0.027* (0.013)		-0.401 (0.303)
Left Gov.	0.423 (0.820)	0.204 (0.828)	-0.004 (0.012)	-0.006 (0.012)		
Vote (Seat) Share _{t-1}	-0.348*** (0.047)	-0.361*** (0.051)	0.671*** (0.059)	0.653*** (0.063)		
Constant	17.826*** (2.904)	16.113*** (2.897)	0.163*** (0.039)	0.138*** (0.043)	-0.214 (0.509)	0.037 (0.381)

*** p < 0.001, ** p < 0.01, * p < 0.05, [†] p < 0.10

a minimum of 14% reduction in likelihood to a maximum loss of nearly 36%) over the OECD average unemployment rate in the first retention model and for values greater than 1.55 (with a change in predicted probability of retention falling from a minimum of 14% to a maximum reduction in likelihood of nearly 51%) for the second retention model. The marginal effect of *Unemployment* on prime ministerial retention in opposition timed elections statistically significantly different from its general effects for the either model of retention.

Table 5: Marginal effect of an increase in unemployment under differing election types

	Vote	Vote	Seat	Seat
End of term	-0.144 (0.180)	-0.170 (0.181)	-0.005 [†] (0.003)	-0.005 [†] (0.003)
Premier timed	0.184 (0.172)	0.107 (0.172)	0.002 (0.003)	0.001 (0.002)
Opposition timed	-1.378** (0.416)	-1.508*** (0.419)	-0.022*** (0.006)	-0.024*** (0.006)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, [†] $p < 0.10$

5 Conclusion

This chapter found that election types mediate the effects of unemployment on election outcomes. The evidence for this hypothesis was not found in the traditional economic voting models, but instead at the foci of political ambitions: in seat share and holding the prime minister’s office. Differences between domestic and OECD average unemployment rates had a significant direct dampening effect on the prime minister’s seat share, with little evidence of an indirect effect through the mechanism of election type. On the other hand, the economy’s effect on retention of the prime minister is strongest through its indirect path on the type of election held. The indirect effects of the economy through the mechanism of election type is only found to be statistically significant for prime ministerial retention, but this is the end goal of the politicians who call elections. That indirect effects of the economy were found for this outcome is a necessary piece of evidence to retain the theory that the economy affects election outcomes by affecting the incentives of politicians with the power to call opportunistic elections.

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.

This chapter also tested an alternative hypothesis that election types moderate the effects of the economy. The evidence in favor of this hypothesis was mixed. While there was a significant negative effect of unemployment on vote share in opposition timed elections, there was no effect in end of term elections—the vast majority of elections in the sample. This runs counter to numerous findings in the economic voting literature, where unemployment is found to have a negative effect on vote share generally. In fact, the finding related to the relationship between unemployment and both seat share and prime ministerial retention seem to indicate support for the overarching theory of strategic politicians using elections to further their electoral goals. The negative and significant effect of unemployment in end of term elections on *seat share* and *prime ministerial retention* supports conventional wisdom that the economy matters generally for election outcomes. The positive (negative) sign on the interactions with premier (opposition) timed elections indicate that elections do not serve to provide information to voters about likely future economic outcomes (Smith, 2004). Instead, they are associated with decreased (increased) salience of the economy when prime ministers (opposition parties) call elections. Those findings align more closely with the theory presented in chapter two of the dissertation that politicians choose elections to coincide with economic conditions that maximize their chances of holding prime ministerial power: prime ministers dissolving parliament when the economy is not particularly salient for voters; opposition parties calling them when the economy is particularly troubling to

voters.

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