

Who ‘Wins’? Determining the Party of the Prime Minister*

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ABSTRACT

The prime ministership is widely recognized as the preeminent post in parliamentary democracies. To date, existing research on prime ministerial party choice focuses almost exclusively on party-specific factors relating to party size and ideology. We extend previous research by recognizing the important role played by key strategic actors such as the incumbent prime minister and head of state, as well as how institutional and dynamic contextual factors constrain the ability of these actors to influence the selection of the prime ministerial party. We test our hypotheses on an original dataset that includes information on 369 prime ministerial selection opportunities in 28 Western and Eastern European democracies. Our results challenge conventional wisdom concerning the determinants of prime ministerial party choice. Methodologically, we employ a mixed logit model with random coefficients. This allows us to not only examine the factors that affect which party obtains the prime ministership, but to also explore how the influence of these factors varies across prime ministerial party selection opportunities due to unique aspects of each case that are difficult or impossible to capture in a quantitative model. Our analysis demonstrates that the mixed logit model is an extremely valuable tool for comparative scholars engaged in cross-national research.

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1 Introduction

“Who won?” is probably the first and most important question asked after an election in parliamentary democracies. The answer to this question is obvious when a single party controls a legislative majority and can, therefore, choose to form a government on its own. However, it is not so obvious when, as is the norm in parliamentary democracies, no such party exists. Typically, the question of “who won” in these situations is one about which party will secure the prime ministership. For most observers, for example, the question of who won the 2005 German elections boiled down to whether Gerhard Schroeder’s Social Democratic Party (SDP) or Angela Merkel’s Christian Democratic Union (CDU) would gain the chancellorship. Although which parties get into government obviously matters a great deal for voters and politicians alike, who gets to control the prime ministership is of particular import because the prime ministerial party tends to be privileged when it comes to things like making policy, setting the agenda, and controlling office benefits (Laver & Schofield 1990, Bergman et al. 2003, 179-181). As Warwick and Druckman (2006, 640) note, “[t]he prime ministership . . . is . . . recognized in all countries and by all parties as the pre-eminent post.”¹ This helps to explain why, although it was quickly determined that the SPD and CDU would have to form a government together after the 2005 elections, there was a two-month delay in forming the government during which the leaders of both parties fought over who should become the chancellor.

Given that who “wins” the prime ministership is widely recognized as being of crucial importance, it is somewhat surprising that political scientists have paid so little attention to the factors influencing the choice of prime ministerial party. Although the literature on the government formation process is generally considered one of the largest and most developed in all of political science (Laver & Schofield 1990, Laver 1998), almost all existing studies focus on the party composition of the government as a whole rather than the allocation of specific portfolios such as the prime ministership (Martin & Stevenson 2001, Druckman & Roberts 2005, Warwick 2005, Indričason 2008).² We know of only a handful of published articles ad-

¹A survey of experts in 14 West European countries found that the prime ministership was considered to be 2.24 times as important as the average ministerial portfolio and 4.48 times as important as the lowest ranked portfolio (Druckman & Warwick 2005). The fact that the rating for the prime ministership significantly exceeded the value of the next rated portfolio in every country except Luxembourg (small sample) suggests that “the prime ministership is more than just the top portfolio; it is the stellar post” (Druckman & Warwick 2005, 29). Almost identical scores are reported in a recent expert survey conducted in 14 East European countries (Druckman & Roberts 2008).

²There is a growing literature on portfolio allocation but this focuses almost exclusively on Gamson’s law and how proportionally ministerial portfolios are distributed across cabinet parties (Warwick & Druckman 2001, Druckman & Warwick 2005, Warwick & Druckman 2006, Laver, de Marchi & Mutlu 2008); this literature does not explicitly address the choice of prime ministerial party.

addressing the choice of prime ministerial party (Warwick 1996, Mattila & Raunio 2004, Isaksson 2005, Bäck & Dumont 2008, Kang 2009).³ In this article, we seek to redress this imbalance in the existing literature by examining the factors that influence which party secures the prime ministership. In doing so, we make theoretical, empirical, and methodological contributions to the existing government formation literature.

From a theoretical standpoint, existing studies of prime ministerial party choice focus almost exclusively on party-specific factors relating to legislative size and ideology. By focusing primarily on these factors, previous studies tend to ignore the actual process by which governments are formed and prime ministers are chosen. In effect, they do not take sufficient account of the privileged position of key strategic actors who get to shape this process. Two such actors are the incumbent prime minister and the head of state (Strøm, Budge & Laver 1994, Lupia & Strøm 1995, Strøm & Swindle 2002). Although some scholars have examined the role of the incumbent prime minister, almost no attention has been paid to the role played by the head of state. One reason for this is that the head of state is typically seen as a ceremonial position above the cut and thrust of everyday politics. As we demonstrate, though, there are situations in which presidential heads of state may both desire and be able to influence the choice of prime ministerial party.

The ability of key strategic actors to influence the choice of the prime ministerial party is likely to depend on the context in which government formation takes place. For example, we argue that the ability of presidential heads of state to affect the choice of prime minister depends on their institutional environment. In particular, it depends on whether there is an investiture vote and whether the president is directly elected. Note that these types of institutional features of the bargaining environment in which governments form are largely *static*; they tend to be fixed features of the political landscape. Referring to studies of coalition behavior more generally, Druckman (2008, 479) argues that “a well recognized but largely unresolved problem plagues the bulk of extant studies: they are static” and that “[i]ncorporating dynamic elements into coalition theory would represent substantial progress.” In what follows, we provide the first attempt to incorporate dynamic features of the bargaining environment into an empirical analysis of prime ministerial party choice. More specifically, we argue that the ability of the incumbent prime minister to influence the choice of the new prime minister depends on exactly how the previous government

³In their study of the government formation process in eleven parliamentary democracies, Diermeier and Merlo (2004) examine the choice of the *first* formateur and not the choice of the prime minister. Although most formal models of the government formation process predict that the first formateur will be successful and become the prime minister, this is at odds with the empirical evidence. Diermeier and Merlo’s (2004, 788) own data indicate that the first formateur is successful only 58% of the time.

terminated and on her performance and that of her coalition partners while in office.

From an empirical standpoint, we contribute to the existing literature by testing our theory on data from both Western and Eastern Europe. To date, there have been no quantitative empirical studies of prime ministerial party choice in Eastern Europe.⁴ That virtually all previous studies of the government formation process have focused on Western Europe has led some to speak of “a rather incestuous process” in which scholars have had “few qualms about modifying their theoretical assumptions in search of a better fit with reality” (Laver & Schofield 1990, 8). Although we do not entirely agree with the starkness of this criticism, it does seem reasonable to wonder whether the “general” theories of coalition formation that have been built and tested with Western Europe in mind really do travel to other regions of the world. It is for this reason that we test our hypotheses on a new data set that we collected on the governments in eleven Central Eastern European countries from 1990 to 2008 as well as a recently-available data set covering West European governments from 1945 to 1998 (Strøm, Müller & Bergman 2008).

Eastern Europe offers a particularly fruitful place in which to evaluate cross-national theories of government formation. Although Eastern and Western Europe generally share a common set of parliamentary institutions, they differ enormously in terms of their social, economic, cultural, and political contexts (Druckman & Roberts 2005, 539). In particular, Eastern Europe has only limited experience with the practice of parliamentary government, it has had to manage the transition from a centrally planned economy to a capitalist one, and it continues to be influenced by its communist legacy, not least through the existence of communist successor parties. Given this, Eastern Europe offers an excellent testing ground to evaluate the relative importance of institutions and other contextual factors when it comes to choosing the government and, more specifically, the prime ministerial party. Much to the dismay of country specialists, extant theories of the government formation process do not tend to incorporate non-institutional contextual factors. If we were to find significant differences between Western and Eastern Europe in our empirical analyses, then this would suggest that scholars should revise their theories of government formation to make them more sensitive to non-institutional contextual factors.

From a methodological perspective, we advance the existing literature in two ways. First, we adopt

⁴Indeed, with the exception of Somer-Topcu and Williams (2008) and Schleiter and Morgan-Jones (Forthcoming), who look at government duration and termination respectively, Druckman and Roberts (2005, 2007, 2008), who look at the allocation of cabinet portfolios and the impact of communist successor parties on coalition formation, and Amorim Neto and Strøm (2006), who look at the appointment of nonpartisan ministers, there is very little statistical work on coalition behavior in Eastern Europe at all.

an empirical strategy that recognizes that the appropriate unit of analysis is the prime ministerial selection opportunity in which a single party is chosen out of the set of all parties winning legislative seats. Surprisingly, most existing studies fail to do this and instead treat each party as an independent observation, without regard to the other parties competing for the prime ministership in a given selection opportunity (Warwick 1996, Mattila & Raunio 2004, Isaksson 2005).

Second, we take seriously the concerns of qualitative researchers and country specialists who point out that most quantitative studies in comparative politics ignore differences in the social, political, and historical contexts of the cases they study in favor of treating all cases as homogeneous units. Many of these contextual factors, such as personality clashes and ad hoc critical events, can play a key role in determining the composition of the cabinet and the identity of the prime minister but are difficult or impossible to quantify (von Beyme 1985, Pridham 1986, Laver & Schofield 1990, 195-215). The result is that the influence of observed variables on prime ministerial party choice, such as party size or incumbent prime ministerial party status, may vary across selection opportunities for unobserved or unmeasured contextual reasons.

To address these points, we employ a mixed logit model specified to allow for random coefficients (Train 1998, McFadden & Train 2000, Glasgow 2001). This model treats the prime ministerial party selection opportunity as the unit of analysis and allows our model coefficients to vary for unobserved or unmeasured contextual reasons. This approach allows us to strike a balance between assuming that the only meaningful variation between prime ministerial selection opportunities is captured by our independent variables and assuming that each case is so unique that it cannot be meaningfully compared to others. More generally, our application demonstrates that a random coefficients approach can help quantitative researchers address the heterogeneity and causal complexity that underlies almost all comparative politics research (Beck & Katz 2007, Western 1998).

2 Theory and Hypotheses

In this section, we outline the theoretical argument linking (i) party-specific characteristics, (ii) the role of key strategic actors, and (iii) the bargaining context to the choice of the prime ministerial party.

2.1 Party-specific Characteristics

All existing studies have emphasized the significance of party size for prime ministerial party choice. As we will indicate, though, party size can matter in different ways. Media accounts of parliamentary elections frequently refer to the largest party as the “winner” and assume that the largest party will have first shot at putting a government together. Empirically, there is some support for this assumption. In their study of *formateur* choice in Western Europe, for example, Bäck and Dumont (2008, 353) conclude that being the largest party “is clearly the dominant feature.”⁵ Indeed, some countries, such as Greece and Bulgaria, actually have constitutional provisions requiring that the first *formateur* be the largest party. As most models of the government formation process indicate, the first *formateur* has an advantage over other parties during coalition negotiations. This is because it can exploit its proposal power to obtain a disproportionate number of ministerial portfolios, pull government policy towards its own ideal point, and, more importantly, gain the prime ministership (Baron & Ferejohn 1989, Ansolabehere et al. 2005). The largest party may also enjoy extra leverage during the government formation process stemming from its ability to claim to have more electoral support than any other party. In fact, it is frequently the case that the largest party will claim that it has been given a mandate by the people and should control the prime ministership.⁶ This line of reasoning suggests that the largest party is more likely to be chosen as the prime ministerial party than other parties.

- **Largest Party Hypothesis:** The largest party is more likely to be chosen as the prime ministerial party than other parties.

One might wonder, though, whether it really matters whether a party is the *largest* party or simply a *large* party. Arguably, the process of forming and heading a government is easier for large parties in general because they need fewer and smaller coalition partners to form a legislative majority than other parties. So,

⁵Diermeier and Merlo (2004) find only partial support for the claim that the largest party will be chosen as the first *formateur*. There are, however, good reasons to question the conclusions of their analysis. The primary reason for this has to do with the source that they use for identifying the first *formateur*: *Keesings Record of World Events*. Despite “sustained and determined efforts” to reconstruct data on *formateurs* using *Keesings*, Laver, de Marchi, and Mutlu (2008, 8) “concluded unambiguously that this is simply not possible . . . it is not in practice systematically possible to observe *ex ante* exogenous *formateur* status in primary data sources.” In contrast, the data employed by Bäck and Dumont (2008) have the advantage that they are not based on incomplete historical records but, instead, on a detailed survey of country experts.

⁶This is precisely the argument made by Stephen Harper, head of the Conservative Party, in Canada in 2008 when opposition parties tried to bring down his single-party minority government. Harper’s argument enjoyed considerable support amongst Canadians. Indeed, a number of public opinion polls at the time revealed that many Canadians thought that the opposition’s attempt to remove the largest party from government was undemocratic; the Conservative Party had won more seats than anyone else and, therefore, deserved to be the prime ministerial party even if it did not have the support of a legislative majority.

is there really a bonus for being the largest party above and beyond simply being a large party? To a large extent, it is hard to know the answer to this question based on the five existing studies of prime ministerial party choice. This is because one study includes a variable for the largest party but fails to control for party size (Bäck & Dumont 2008), whereas another includes a variable for party size but fails to control for the largest party (Mattila & Raunio 2004). Another study includes variables for both party size and the largest party but fails to exclude majority parties (Isaksson 2005). As a result, there is the possibility that the evidence of a largest party bonus in this study is solely due to the inclusion of majority parties, which, as our own data indicate, *always* go on to control the prime ministership. Warwick (1996) and Kang (2009) find either no evidence or only very weak evidence of a largest party bonus. However, these studies are open to question on methodological grounds as we explain below. In what follows, we reexamine whether there is a largest party bonus or not.

- **Party Size Hypothesis:** A party is more likely to be chosen as the prime ministerial party the larger its seatshare.

Existing studies of prime ministerial party choice also focus on the ideological location of legislative parties. In particular, they emphasize the importance of the median ideological party. The reason for this is that one-dimensional theories of coalition bargaining indicate that the party controlling the median legislator is effectively a dictator on policy in the government formation process. It should be noted that the importance of the median ideological party in one-dimensional theories is independent of its actual legislative size. As Laver and Schofield (1990, 111) so blithely put it, “[i]t makes no difference whether the core party governs alone, in a minority coalition, in a minimal winning coalition, in a surplus majority coalition, or even in a grand coalition. It makes no difference if it goes off on holiday to Bermuda and sits on the beach getting a suntan.” Given its pivotal position in the policy space, it is to be expected that the median ideological party will have a higher likelihood of becoming the prime ministerial party than other parties.⁷

- **Median Ideological Party Hypothesis:** A party is more likely to be chosen as the prime ministerial party if it is the median ideological party.

⁷This argument obviously rests on the assumption that the relevant policy space is one-dimensional. Considerable research suggests that the assumption of a single issue dimension, typically a left-right dimension, is reasonable in the countries of Western Europe (Huber & Inglehart 1995, Budge et al. 2001). It is less clear, though, whether a single issue dimension accurately captures the policy space in East European countries (Pridham 2002, 80-81). A consequence of this is that we may find significant differences in the importance of the median ideological party across Western and Eastern Europe in our upcoming empirical analyses.

2.2 Key Strategic Actors

Institutionalist arguments, which highlight the importance of the actual government formation process, indicate that certain actors often have a privileged role in coalition bargaining and may be able to influence the choice of prime ministerial party (Strøm, Budge & Laver 1994). Two such actors are the incumbent prime minister and the head of state. One reason for the importance of the incumbent prime minister is that she is often chosen to be the first formateur. Although Bäck and Dumont (2008) find that being the largest party has the strongest impact on formateur choice, they also find that being the incumbent prime ministerial party matters. Indeed, scholars have noticed that some countries, such as Denmark, Norway, and Sweden, appear to have a continuation norm in that the incumbent prime minister is usually given the first shot at putting a government together (Strøm, Müller & Bergman 2008). A consequence of this is that the incumbent PM party is often in a position to shape the government formation process to its advantage. A second reason is that incumbent prime ministers have the ability to strategically end governments (often by calling early elections) at times when they expect their bargaining power and hence their probability of being reselected as prime minister to be high (Lupia & Strøm 1995, Strøm & Swindle 2002, Smith 2004, Schleiter & Morgan-Jones Forthcoming).⁸ A third potential reason for the importance of the incumbent prime minister has to do with the bargaining costs associated with replacing the status quo government. In effect, the incumbent government may be returned to office because it is easier and less costly to re-strike a bargain that already exists than for other parties to negotiate a new one (Martin & Stevenson 2008, 18). Although this argument primarily applies to the incumbent government as a whole, it also applies to the incumbent prime minister. All of these arguments imply the following hypothesis.

- **Incumbent Prime Minister Hypothesis:** The party of the incumbent prime minister is more likely to be chosen as the prime ministerial party than other parties.

Although existing studies of prime ministerial party choice have examined the role of the incumbent prime minister, almost no attention has been paid to the role played by the head of state.⁹ In non-presidential democracies, the head of state is either a monarch or a president. Given that monarchs are not explicitly

⁸Importantly, although incumbent prime ministers sometimes have to get the approval of the head of state before calling early elections, they rarely have to obtain the formal approval of the full cabinet (Strøm & Swindle 2002). As Martin and Stevenson (2008, 22) note, this means that the incumbent prime minister is likely to be advantaged in the post-election government formation process not only vis-à-vis opposition parties but also in regards to her own cabinet partners.

⁹For a recent exception, see Kang (2009).

affiliated with a particular political party and that they are clearly supposed to fulfil only a symbolic role, we do not expect them to *systematically* affect the choice of prime ministerial party.¹⁰ Presidents, though, are a different story. Although the position of president in a non-presidential democracy is often seen as a largely ceremonial one, it is important to remember that the president officially appoints the formateur in many countries and there are times when she might have some latitude to use this power to influence who gets appointed (Shugart & Carey 1992, Protsyk 2005, Kang 2009). Under such conditions, we might expect the president to favor her own party.

Although presidents are typically portrayed as “senior statesman” types, they are usually drawn from the ranks of career politicians and it is probably unreasonable to think that they would relinquish their partisan convictions upon becoming president. Indeed, country experts have identified a number of cases in which presidents have been consequential in the government formation process (Strøm, Budge & Laver 1994, Bergman et al. 2003). Although the presidents of Italy, Portugal, Austria, Finland, and France are often singled out, one could also add the distinctly partisan roles played by presidents in Iceland and the Czech Republic. For example, the Icelandic president’s prerogative of choosing the formateur was critical in the formation of a coalition government between the Social Democratic Party and the Independence Party that ruled from 1959 to 1971 (Kristinsson 1999). Following legislative elections in June 2006, the Czech president, Vaclav Klaus, was also able to influence the government formation process in a starkly partisan way because of his power to appoint the formateur. The Czech elections resulted in a dead-heat in the 200 seat legislature with 100 seats won by a coalition of left-wing parties and 100 seats won by a coalition of right-wing parties. The Czech president, who belonged to the right-wing Civic Democratic Party, appointed a member of his own party - Mirek Topolánek - to be the first formateur. When his nominated formateur failed to get his proposed government passed in an investiture vote that saw all 100 legislators from the right vote for it and all 100 legislators from the left vote against it, Klaus simply re-nominated Topolánek to be the next formateur. In somewhat dubious circumstances, Topolánek managed to win a second investiture vote even though he proposed exactly the same government as before - he won the vote 100 to 98 when two

¹⁰This is not to say that monarchs never play an influential role in the government formation process. For example, the Belgian king has directly inserted himself into the government formation process on a number of occasions in recent years. The legislative elections held in Belgium on June 10, 2007 were followed by the longest delay in forming a new government in Belgian history – 194 days. With no end in sight to the coalition negotiations, King Albert II applied pressure on various party leaders to put their differences aside and reach an agreement on a temporary government so that important legislation could be passed. The king has since maintained a pro-active role in trying to build and sustain Belgian governments.

left-wing legislators surprisingly decided to abstain rather than vote against the proposed government.¹¹ In sum, there is plenty of anecdotal evidence from both Western and Eastern Europe that presidential heads of state often try to influence the government formation process and the identity of the prime minister to the benefit of their own party.

- **Presidential Party Hypothesis:** The party of the president is more likely to be chosen as the prime ministerial party than other parties.

2.3 Importance of the Bargaining Context

The ability of key strategic actors, such as the incumbent prime minister and the head of state, to influence the choice of prime ministerial party is likely to depend on the context in which coalition negotiations take place.¹² For example, the extent to which a president can be expected to influence the government formation process to the advantage of her own party will depend on the institutional environment in which she acts. In particular, it should depend on (i) whether the president is directly or indirectly elected and (ii) whether there is an investiture vote or not. Although a directly elected president has her own independent mandate from the people, an indirectly elected president is somewhat beholden to her party for her position. As a result, we might expect that an indirectly elected president would try to influence the choice of prime ministerial party to the benefit of her own party more than a directly elected president.

The ability of any president, no matter how she is elected, to influence the choice of the prime ministerial party is likely to be constrained in countries where the government must pass an investiture vote. Our argument here is similar to that made elsewhere to explain why minority governments find it hard to form when there is a required investiture vote (Strøm 1990, Bergman 1993). The idea is that a proposed government, and a proposed prime minister, have to enjoy a higher level of explicit support in the legislature when there is an investiture vote than when there isn't one. When there is an investiture vote, the onus is on the government to demonstrate that it is supported by a legislative majority. In contrast, when there

¹¹A similar situation arose in Slovenia following the 1996 legislative elections (Protsyk 2005, 737). Although Janez Drnovšek's Liberal Democratic Party won the most seats, it was expected that an opposition coalition comprising 45 of the 90 legislative seats would form the government. However, President Milan Kučan nominated Drnovšek as the prime minister. When Drnovšek failed to get a majority in the investiture vote, the president simply renominated him. Drnovšek eventually became the prime minister when one member of the opposition coalition switched sides.

¹²Although existing studies incorporate some contextual features in their empirical analyses, they nearly always do so in an additive way (Warwick 1996, Mattila & Raunio 2004, Isaksson 2005). In effect, these features are treated as control variables rather than as truly contextual factors that modify the effect of other variables.

is no investiture vote, the onus is on the legislature to show that the government is not tolerated. This distinction between being *supported* and *tolerated* suggests that investiture votes might constrain the ability of presidents to influence the prime ministerial party selection process. This line of reasoning leads to the following hypothesis.

- **Presidential Constraints Hypothesis:** The party of the president is most likely to be chosen as the prime ministerial party when the president is indirectly elected and there is no investiture vote. The likelihood that the presidential party will be the prime ministerial party declines (and may go to zero) if the president is directly-elected or if there is an investiture vote.

The institutional factors that constrain the ability of the president to influence the choice of prime minister – direct elections and investiture rules – are static features of the bargaining context in which governments form; they are essentially fixed features of the political landscape that do not vary (much) over time. One criticism of existing studies of the government formation process is that they tend not to incorporate more dynamic features of the bargaining context (Druckman 2008, 479). As Laver (1998, 22) points out, “[t]he absence of these features from government-formation models is not because theorists regard them as unimportant. The reason is more prosaic – it is very difficult to incorporate them in a rigorous manner.” One way to incorporate at least some dynamic features into empirical analyses of prime ministerial party choice is to recognize that the ability of the incumbent prime minister to influence the government formation process is likely to depend on how the previous cabinet ended and on how well she and her coalition partners performed while in office.

Although there has been some research on the causes and consequences of cabinet termination (Lupia & Strøm 1995, Strøm & Swindle 2002, Diermeier & Stevenson 1999, Bernhard & Leblang 2008, Schleiter & Morgan-Jones Forthcoming), we know of no empirical study that examines how particular types of cabinet termination affect the choice of the prime ministerial party.¹³ It seems reasonable to expect, though, that the ability of the incumbent prime minister to get reelected as the prime minister will depend in large part on how her government terminates. In particular, it is likely to depend on whether her government ends due to public conflict or not. Governments can terminate in numerous ways (Müller & Strøm 2003, 25-27). Some of these terminations involve public conflict. For example, governments can end because of a parliamentary defeat, intra-cabinet conflict, or intra-party conflict. In contrast, some terminations are not

¹³In a recent conference paper, Martin and Stevenson (2008) investigate the effect of cabinet termination on the party composition of the government as a whole but not on the choice of prime ministerial party.

characterized by substantial public conflict. For instance, some governments end for technical reasons, such as the death of a prime minister or because of a constitutionally-mandated election. It should be the case that the party of the incumbent prime minister is more likely to be chosen as the new prime ministerial party if the previous government did not end in conflict than if it did. This is because public conflict signals at least some dissatisfaction with the incumbent government and possibly with the incumbent prime minister as well.

- **Termination Conflict Hypothesis:** The party of the incumbent prime minister is more likely to be chosen as the prime ministerial party if the previous government did not end in public conflict.

The ability of the incumbent prime minister to influence the government formation process will also likely depend on her performance and that of her coalition partners while in office. Obviously, a good performance while in office should translate into a large seatshare, which, in turn, should increase the probability of being reelected as the new prime minister. However, as Martin and Stevenson (2008, 19) point out, there are reasons to suspect that a good performance will help the incumbent prime ministerial party above and beyond its electoral effect on party size. For example, there may be a sense, especially among the electorate, that an incumbent prime minister who has done well deserves to continue. Other parties may be willing to allow the incumbent prime minister to continue if a good past performance is taken as a signal of good future performance, particularly if they believe that the electorate will punish them for not doing so. This line of reasoning suggests that the performance of the government as a whole, and, in particular, the performance of the prime ministerial party should affect the ability of the incumbent prime minister to be reelected as the new prime minister. This leads to the following two hypotheses.

- **Government Performance Hypothesis:** The party of the incumbent prime minister is more likely to be chosen as the prime ministerial party if the performance of the incumbent government was good.
- **Incumbent PM Performance Hypothesis:** The party of the incumbent prime minister is more likely to be chosen as the prime ministerial party if its performance in office was good.

3 Empirically Modeling the Choice of Prime Ministerial Party

To date, the standard approach employed to evaluate hypotheses about prime ministerial party choice has been to treat parties as the unit of analysis and use a logit model to evaluate the likelihood that a party

obtains the prime ministership (Warwick 1996, Mattila & Raunio 2004, Isaksson 2005). This approach is inappropriate, though, because it treats each potential prime ministerial party as independent of all the others and fails to recognize that only one party in any given prime ministerial party selection opportunity can obtain the prime ministership.

3.1 Conditional Logit and its Limitations

A more appropriate empirical modeling strategy is to treat each prime ministerial *selection opportunity* as the unit of analysis and to estimate the probability that each party out of the set of all legislative parties will obtain the prime ministership. One possibility is to use McFadden's (1974) conditional logit (CL) model. In this model, the probability that party j gains the prime ministership given K legislative parties in selection opportunity i is given by:

$$P_{ij} = \frac{e^{x_{ij}\beta}}{\sum_{k=1}^K e^{x_{ik}\beta}} \quad (1)$$

where β represents a vector of coefficients and x_{ik} represents a matrix of independent variables associated with prime ministerial alternative k in selection opportunity i . Bäck and Dumont (2008) and Kang (2009) have recently provided analyses of prime ministerial party choice that employ a conditional logit model.

Although the conditional logit represents an advance over earlier empirical work, it does not address the concerns of qualitative researchers and country specialists who point out that a large variety of contextual factors, such as personality clashes, ad hoc critical events, and general eccentricities on the part of political actors, can have a significant impact on the identity of the prime ministerial party (von Beyme 1985, Pridham 1986, Laver & Schofield 1990, 195-215). More generally, many qualitative researchers are concerned with *causal complexity* where the effect of any one variable may depend on which other contextual factors are present or absent (Braumoeller 2003, Jervis 1997, Ragin 1987). In our case, the concern is that observed variables that can be crucially important for the choice of prime ministerial party in some situations might be largely irrelevant or even obstacles in others because of these contextual factors.

If these contextual factors are observed, then the conditional relationship between our observed variables and prime ministerial party choice can be captured through the use of multiplicative interaction terms (Brambor, Clark & Golder 2006, Kam & Franzese 2007). Unfortunately, in many cases heterogeneity in

how our observed variables influence the choice of prime ministerial party may be caused by characteristics of the particular selection opportunity that are either unobserved or difficult to measure in a reliable and systematic fashion. As an illustration of this, consider the following two examples from Norway.

In 1972, there was a referendum on whether Norway should join the European Community (EC), with the incumbent Labor government campaigning in favor of membership. Ultimately, the referendum failed to pass and the Labor government resigned. During the negotiations that followed, it became clear that the next government would have to consist of parties that had been victorious in the referendum. This was despite the fact that these parties controlled only about a third of the legislative seats between them. The prime ministership eventually went to the Christian People's Party even though it was the smallest legislative party and had never enjoyed this favor before. The reason was that the new government had to conclude a trade agreement with the EC and the Christian People's Party had taken the most compromising attitude of all the opposition parties during the referendum campaign (Narud & Strøm 2000, 173).

Prior to the 1997 legislative elections, Norwegian Prime Minister Thorbjørn Jagland declared that his Labor government would resign if it received less than 36.9% of the national vote. Although the elections resulted in the Labor Party being the plurality winner, the fact that it won only 35% of the vote effectively ruled it out as a possible governmental party. The end result was the installation of a minority coalition government that controlled only about a quarter of the seats in parliament. As Strøm (2000, 284) notes, “[h]ad Jagland not committed himself to his game plan, he most likely could have continued in office after the election.”

As these Norwegian examples illustrate, variables traditionally seen as being key determinants of prime ministerial party choice, such as largest party status, may have little impact on the choice of prime ministerial party due to unobserved or unmeasured contextual factors. Typically, quantitative empirical studies have assumed that the only meaningful variation across cases is captured by the observed variables in the model and, therefore, that idiosyncratic contextual factors, such as the lost 1972 EC referendum or Jagland's 1997 pre-electoral declaration in Norway, can be safely relegated to a random error term that is independently and identically (IID) distributed across observations. However, this assumption is problematic in our case on both substantive and methodological grounds.

Substantively, we wish to relax the assumption that all prime ministerial selection opportunities are

homogeneous, with the only interesting variation across cases captured by our observed variables. Although we cannot observe all of the contextual factors that influence the choice of prime ministerial party, understanding how these unobserved factors introduce variation into the effects of the variables that we can observe is valuable substantive information. By allowing heterogeneity and causal complexity to play a role in our empirical model, we help to bridge the gap between general theoretical models and case-specific studies, thereby building a more nuanced picture of the prime ministerial party selection process (Beck & Katz 2007, Western 1998).

Methodologically, ignoring unobserved heterogeneity in the effects of our observed variables is likely to lead to violations of the assumption that the error term in the CL model is IID across parties. In particular, unobserved heterogeneity in how observed variables influence the choice of prime ministerial party is likely to mean that the error terms associated with the party alternatives in each prime ministerial party selection opportunity will be negatively correlated. This is because increases or decreases in the influence of the observed variables will systematically advantage some parties and disadvantage others. This is important because this type of violation of the IID assumption for the error term leads to inconsistent estimates in the CL model (Cameron & Trivedi 2005, 513).

Note that if we fail to address any violations of the IID assumption for our error term, then we will also estimate incorrect *substitution patterns* between parties. In other words, we will incorrectly estimate how the probability that a party gains the prime ministership changes as its characteristics or those of other parties change. The IID error term in the CL model leads to the well-known independence of irrelevant alternatives (IIA) assumption. This assumption requires that a change in the attributes of one potential prime ministerial party changes the probabilities of choosing the other parties in a way that preserves the ratios of probabilities between parties. That is, if party A is estimated to be twice as likely to win the prime ministership as party B, then IIA requires that this must remain true no matter how the attributes of party C might change. If the IIA assumption is violated and we fail to address it, then any counterfactual estimates we undertake, such as examining the effect of increasing a party's seatshare, will be suspect.

Whether IIA is indeed violated in a given setting is an empirical question that can be evaluated with formal statistical tests such as the Hausman test (Hausman 1978, Hausman & McFadden 1984). In our particular application, IIA violations seem likely not only because of the unobserved heterogeneity described

earlier but also because of the fact that some parties are likely to be seen as substitutes by the actors involved in the government formation process. For example, it is relatively common for European countries to have multiple parties from the same ideological party family. It seems plausible that different prime ministerial party alternatives from the same ideological family, say the Greens or extreme right, will be considered at least partial substitutes for one another. If this is the case, then the assumption of IIA imposed by the CL model will be incorrect.

To investigate potential IIA violations in our particular application, we estimated 100 Hausman tests in each of which we randomly dropped 10% of our observations but never a party that actually gained the prime ministership. We then employed a Bonferroni correction for the test p -values to take account of the fact that some IIA violations are likely to appear by chance given the large number of Hausman tests that were conducted (Abdi 2007). By only dropping 10% of the sample at a time and using the Bonferroni correction, we used a very conservative method for identifying IIA violations. Despite this, we found clear IIA violations in ten tests without the Bonferroni correction and in eight tests with the Bonferroni correction.¹⁴ That is, we found clear evidence that some potential prime ministerial parties were perceived as substitutes for unobserved reasons and, therefore, that the CL model is inappropriate here.

3.2 Mixed Logit

To address these substantive and methodological concerns, we employ a mixed logit (MXL) specified as a random coefficients model in our empirical analyses (Train 1998, McFadden & Train 2000, Glasgow 2001).

Substantively, we want to specify a model where the effects of the independent variables are allowed to vary across prime ministerial selection opportunities. For example, we want to allow for the possibility that the effect of being the largest party might be strongly positive in one selection opportunity but weaker or even negative in another. This is a random coefficients setup where the independent variables have a mean effect β that is adjusted upward or downward by some amount η_i in each prime ministerial selection

¹⁴Previous studies in the government formation literature employ a flawed testing procedure for evaluating the IIA assumption. Typically, scholars conducted a series of Hausman tests as we do here but only report the *average* p -value from these tests. This is problematic because an insignificant average p -value does not necessarily mean that the IIA assumption has not been violated – if any *one* Hausman test is significant, then the IIA assumption is violated. For example, if most potential prime ministerial parties are independent but a small subset are correlated, then the average p -value on a set of Hausman tests might be insignificant but the IIA assumption is still violated. Indeed, evidence for precisely this comes from our own Hausman tests which produce an average p -value of 0.54 but clear evidence of IIA violations in at least ten cases. The IIA testing procedures employed in existing studies are also flawed because they fail to incorporate the Bonferroni correction.

opportunity i . If we could observe this adjustment for each prime ministerial selection opportunity, then the probability that party j is selected to hold the prime ministership in selection opportunity i is simply the conditional logit probability from Eq. (1), with each probability adjusted by adding the constant term η_i :

$$P_{ij} = \frac{e^{x_{ij}\beta + x_{ij}\eta_i}}{\sum_{k=1}^K e^{x_{ik}\beta + x_{ik}\eta_i}} \quad (2)$$

Of course, η_i is not actually observed because it is a function of the unobserved or unmeasured factors that affect prime ministerial party choice. We solve this problem by specifying a joint probability distribution $g(\eta|\Omega)$ for η , where Ω are the fixed parameters of the distribution g – this specifies the distributions of our random coefficients. We can then obtain the unconditional probability of winning the prime ministership for each party by integrating the term in Eq. (2) over all possible values of η weighted by the density function of η as given by g :

$$P_{ij} = \int \left[\frac{e^{x_{ij}\beta + x_{ij}\eta_i}}{\sum_{k=1}^K e^{x_{ik}\beta + x_{ik}\eta_i}} \right] g(\eta|\Omega) d\eta \quad (3)$$

This is the mixed logit model, so named because the choice probabilities are a mixture of CL probabilities, each with different values for the η s and a weight determined by the mixing distribution g . Estimating this mixed logit gives us β and Ω – the means and covariance matrix of our random coefficients.

Mixed logit models are extremely flexible and researchers can specify any distribution they wish for the η s.¹⁵ In our upcoming empirical analyses, we specify our random coefficients to be uncorrelated normal distributions with the mean of each random coefficient given by β and the variance of each random coefficient given by the appropriate element in Ω . The choice of normal distributions for our random coefficients allows for the possibility that the effects of the independent variables on prime ministerial party choice need not be always positive or always negative. Note that while η varies across prime ministerial selection opportunities, it does not vary across parties in a single selection opportunity. This introduces correlation across parties into the factors that affect the probability that a party will win the prime ministership, thereby relaxing the IIA assumption even if the covariance matrix of g is diagonal.

In general, mixed logit models cannot be estimated through standard maximum likelihood techniques

¹⁵For more details on specifying mixed logit models in various political science choice situations, see Glasgow (2001).

because the integral for the choice probabilities in Eq. (3) has no closed-form solution. Instead, MXL models are estimated through simulated maximum likelihood. For each prime ministerial selection opportunity, a value for η_i is drawn from $g(\eta|\Omega)$ and used to calculate \hat{P}_{ij} , the conditional choice probability in Eq. (2).¹⁶ This process is repeated R times and the integration over $g(\eta|\Omega)$ is approximated by averaging over the R conditional choice probabilities for each prime ministerial selection opportunity. A simulated log-likelihood function is then created from these simulated probabilities and is maximized with conventional maximum likelihood techniques.

4 Empirical Analysis

In this section, we first describe the data employed to test the hypotheses outlined above and discuss various measurement issues that are largely overlooked by the existing literature. We then present and discuss the results.

4.1 Data and Measurement Issues

To create our data set, we began with all the governments identified by the Comparative Parliamentary Democracy Archive (Strøm, Müller & Bergman 2008).¹⁷ Thus, we began with 424 different governments in seventeen non-presidential West European democracies from 1945 to 1998. The countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, and the United Kingdom. We then dropped six governments that occurred between 1953 and 1957 in Italy because of obvious errors in the number of legislative seats won by various parties such as the Liberal Party (PLP). We were forced to drop a further nine governments because information on the distribution of legislative seats was missing. This left us with 409 governments for Western Europe. To these 409 governments, we added an additional 123 governments from a new data set that we collected ourselves covering eleven Eastern European countries from their transitions to democracy

¹⁶The draws of η can be taken randomly or through quasi-random sequences such as Halton sequences that ensure more even coverage of the interval over which the integration is to be performed (Train 2009, 205-236). We estimate our mixed logit models using 125 Halton draws.

¹⁷This data archive is part of a well-developed research program on Constitutional Change and Parliamentary Democracies (CCPD) that is devoted to the study of West European cabinets. For more information on the CCPD project, see <http://www.pol.umu.se/ccpd/>.

around 1990 through the end of December 2008. The East European countries include Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. In total, we collected information on 532 governments across Western and Eastern Europe.

Note that to evaluate hypotheses about prime ministerial party choice, we need to identify situations in which a new prime ministerial party might actually be chosen. We have referred to these situations as prime ministerial party selection opportunities. Given how the existing literature codes governments, it turns out that the emergence of a new government does not automatically mean that there was a new prime ministerial party selection opportunity. In other words, the 532 governments for which we collected information do not necessarily constitute 532 prime ministerial party selection opportunities. This is a point that is largely overlooked in the empirical government formation literature. According to the standard definition, a new government occurs when there is a change in the set of cabinet parties, the identity of the prime minister changes, or there is a general election (Müller, Bergman & Strøm 2003, 12). The issue here concerns new governments that result from changes in the party composition of the cabinet but that are not characterized by a change in the prime minister, legislative elections, parliamentary defeat, or a government resignation. Although the identity of a government clearly changes whenever a party joins or leaves an existing cabinet, these cases do not, in and of themselves, represent situations in which party leaders bargain afresh over the prime ministership. For example, there was no new bargaining over the prime ministership in Latvia when the Latvian Social Democrat Union joined the coalition government of Prime Minister Vilis Krištopans in 1999. Nor was there any new bargaining over the prime ministership in Croatia when the Istrian Democratic Assembly withdrew from the coalition government of Prime Minister Ivica Račan in 2001. An obvious consequence of including these types of new governments in analyses of prime ministerial party choice, as all five previous studies have done, is that scholars will necessarily overestimate the importance of being the incumbent prime ministerial party for obtaining the prime ministership.¹⁸ In recognition of this fact, we dropped all 68 cases in which a new government emerged but in which there was no opportunity to select a new prime ministerial party.

¹⁸One of the findings in Bäck and Dumont's (2008, 366) analysis of prime ministerial party choice is that being the incumbent PM party is much more important for obtaining the prime ministership when governments form between, rather than after, elections. However, this inter-election advantage for incumbent prime ministers is likely an artefact of Bäck and Dumont's decision to include observations from the inter-election period in which new governments formed but where there was no opportunity to select a different prime ministerial party.

An additional 95 observations were dropped because they were not appropriate for testing the hypotheses outlined earlier. For example, we dropped all cases in which a single party controlled a legislative majority. As we noted previously, majority status is a perfect predictor of prime ministerial party choice – majority parties always obtain the prime ministership. We also dropped those cases in which a non-partisan prime minister was chosen because there was no party to link to the prime ministership. Finally, we dropped all cases in which a caretaker government, rather than a duly-mandated government, took office. We did so on the grounds that “[c]aretaker governments, which take office during difficult periods on an interim basis until a regular government can be formed, clearly are a different species of government” (Warwick 1994, 35). After these omissions, we are left with 369 prime ministerial party selection opportunities and 2,412 potential prime ministerial parties. Our data set is considerably larger than those used in previous studies of prime ministerial party choice. Moreover, it is the first to include information on the choice of prime ministerial party in the newly-established democracies of Eastern Europe.

In order to test our hypotheses, we created a number of measures. *Largest Party*, *Incumbent PM*, and *Investiture* are dichotomous variables indicating whether a party is the largest legislative party, whether a party is the incumbent prime ministerial party, and whether there is an investiture vote respectively. *Party Size* measures the percentage of legislative seats controlled by each party. The data for all of these variables come primarily from the Comparative Parliamentary Democracy Archive (CPDA) for Western Europe and the Comparative Manifestos Project (Klingemann et al. 2006) for Eastern Europe. *President Party* and *Direct Elections* are dichotomous variables indicating the party of the president and whether the president is directly elected. The information for these variables comes largely from Golder (2005) and Kang (2009). We supplemented these data sources, where necessary, with information from additional sources such as *Keesings* and the country reports in the *European Journal of Political Research (EJPR)*.

Median Party is a dichotomous variable indicating the median ideological party; this is the party containing the median legislator when parties are aligned along the left-right continuum. For Western Europe, the median ideological party is identified by country experts associated with the CPDA. For Eastern Europe, we manually identified the median ideological party in each selection opportunity using the estimated left-right party placements provided by the Comparative Manifestos Project (CMP) in combination with our own party size data. We should note that there are certain problems with using CMP data to identify the median

party. For example, one problem is that the CMP data often provides ideological information for electoral coalitions rather than for individual parties. Given the limitations of the CMP data (Benoit & Laver 2007), we would have preferred to use expert judgements to identify the median ideological party for all of our prime ministerial selection opportunities. Unfortunately, such data do not exist for all of our East European observations. The bottom line is that we believe that the identity of the median ideological party is more reliably measured in our West European cases than in our East European ones.

Conflict Termination is a dichotomous variable indicating whether the previous government ends due to public conflict. Governments are coded as ending in public conflict if they terminate because of a parliamentary defeat, intra-cabinet conflict, or intra-party conflict. Governments do not end in public conflict if they terminate because of some technical or constitutional reason, such as when a government's constitutionally-mandated term comes to an end, when a prime minister dies, or when a cabinet has to resign because of the accession of a new head of state. Whether a government that ends with early elections is coded as terminating in conflict depends on the particular circumstances surrounding its demise.¹⁹ Although most terminations that result in early elections are conflictual, this is not always the case. For example, the Latvian government of Prime Minister Māris Gailis called early elections in 1995 simply because it wanted to return to the autumn timing established prior to the Soviet occupation. Other governments voluntarily call early elections in the absence of obvious conflict because they hope to take advantage of favorable electoral conditions (Smith 2004). Data on this variable for Western Europe come from the CPDA. Data for Eastern Europe come from a wide range of sources, including *Keesings* and the *EJPR* country reports.

PM Performance and *Cabinet Performance* are measures of the performance of the incumbent prime ministerial party and its coalition partners. A common way to conceptualize "performance" is in terms of economic performance. However, operationalizing performance with an economic indicator in this setting is problematic for at least two reasons. First, economic indicators, such as the unemployment rate, do not allow us to easily distinguish between the performance of the incumbent prime ministerial party and that of the government as a whole. For example, it is unclear whether the prime ministerial party, the party controlling the finance ministry, or the cabinet as a whole is responsible for economic performance. Second, the "relevant" indicator of economic performance varies across regions, countries, and time periods (Roberts

¹⁹A government is coded as ending with early elections if an election is called in the first nine-tenths of the constitutional interelection period (Bergman et al. 2003, 166).

2008, 543). For instance, unemployment might be the primary concern in some countries and time periods, whereas inflation might be the predominant economic issue in others. Because of these problems, we follow a long line of research in the government accountability literature and conceptualize performance in terms of electoral performance (Narud & Valen 2008, 399). More specifically, we measure *PM Performance* and *Cabinet Performance* as the *change* in the percentage of legislative seats controlled by the incumbent prime ministerial party and the cabinet respectively since the last selection opportunity. An appealing feature of this approach is that it plausibly captures both economic and non-economic aspects of a government's performance. The obvious underlying assumption here is that the voting behavior of the electorate is, at least partially, determined by the performance of the government. Recent research suggests that this is not an unreasonable assumption (Duch & Stevenson 2008).

4.2 Results and Interpretation

We estimated six slightly different mixed logit specifications in which all of the random coefficients are assumed to be normally distributed. Models 1 and 2 focus solely on party-specific variables such as party size and ideology. Models 3 and 4 take into account the privileged roles enjoyed by the president and the incumbent prime minister in the government formation process. Finally, models 5 and 6 add contextual variables that constrain the ability of these key strategic actors to influence the choice of prime ministerial party. In each model, we estimate both the mean coefficient and its standard deviation for all the independent variables.

Each of the six models are estimated using our whole sample i.e. observations from both Western and Eastern Europe. To evaluate whether there are significant differences in the factors influencing prime ministerial party choice between Western and Eastern Europe, we interact all but two of the independent variables with a dichotomous regional variable.²⁰ To ease interpretation and presentation, though, we show

²⁰We do not interact *President Party*×*Direct Elections* or *President Party*×*Investiture* with the dichotomous regional variable due to unavoidable limitations with our East European observations. Specifically, there is only one selection opportunity in Eastern Europe in which the president's party is chosen as the prime ministerial party and the president is directly elected, and there are no selection opportunities in which the president's party is chosen without an investiture vote. In effect, there is insufficient variation on *President Party*×*Direct Elections* and *President Party*×*Investiture* to reliably estimate their separate effects in Eastern Europe; instead, we estimate a single effect for each of these variables across both regions. Given that the estimated coefficients on *President Party*×*Direct Elections* and *President Party*×*Investiture* are driven almost entirely by variation in Western Europe, we caution readers against using them to draw inferences about how investiture votes and direct elections constrain the ability of presidents to influence the choice of prime ministerial party specifically in Eastern Europe. To highlight this point, the relevant cells in Table 2 are shown in gray.

our results *as if* we had split the sample into those cases from Western Europe and those cases from Eastern Europe. In other words, we use the coefficients on the relevant constitutive and interaction terms from the fully interactive model to calculate the conditional coefficients and standard errors for Western and Eastern Europe separately (Brambor, Clark & Golder 2006, 73-74). The results for Western Europe are shown in Table 1 and the results for Eastern Europe are shown in Table 2.²¹ The last column in Table 2 indicates whether the effects of the independent variables are statistically different ($p < 0.10$) and in what direction across the two regions.

What do the results in Tables 1 and 2 tell us about the determinants of prime ministerial party choice in Western and Eastern Europe? As we noted earlier, media and scholarly accounts of the government formation process typically focus on the largest legislative party. This is hardly a surprise given that the largest party obtains the prime ministership in 72.8% and 77.5% of the selection opportunities in Western and Eastern Europe respectively. Importantly, though, these statistics do not tell us whether these parties obtain the prime ministership because they are the *largest* party or simply because they happen to be a *large* party. The results of our empirical analysis provide considerable support for the *Party Size Hypothesis* that parties are more likely to be selected as the prime ministerial party the larger their legislative seatshare. This can be seen by the positive and highly statistically significant mean coefficient on *Party Size* in all six models shown in Tables 1 and 2. Party size clearly matters, but is there a bonus for being the largest party above and beyond simply being a large party?

The fact that the mean coefficient on *Largest Party* is positive and statistically significant in all six models shown in Table 1 but insignificant in all six models in Table 2 indicates that there is a largest party bonus *on average* in Western Europe but not in Eastern Europe. Note, though, that the standard deviation of the random coefficient on *Largest Party* is always large relative to its mean and highly statistically significant in both Western and Eastern Europe. This indicates that the effect of being the largest party on the probability of obtaining the prime ministership varies considerably from one selection opportunity to another. For example, the fact that the distribution of the coefficient on *Largest Party* in Model 6 in Table 1 has a mean of 2.58 and a standard deviation of 4.72 means that 70.8% of the distribution is above zero and 29.2% is below

²¹Our hypotheses regarding presidential heads of state and incumbent prime ministerial parties are conditional and require the use of multiplicative interaction terms. Although the standard advice is to include all constitutive terms whenever interaction models are estimated (Brambor, Clark & Golder 2006), this is not possible here because the variables that constrain the behavior of these key strategic actors do not vary within prime ministerial party selection opportunities.

Table 1: Prime Ministerial Party Choice in Western Europe

Regressor	Dependent Variable: Prime Ministerial Party (1, 0)											
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6						
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.						
<i>Party-specific variables:</i>												
Largest Party	1.02* (0.53)	2.77*** (1.05)	0.71** (0.35)	1.98*** (0.72)	0.88** (0.44)	2.53*** (0.90)	0.98* (0.53)	2.58** (1.16)	0.99** (0.50)	2.49** (1.15)	2.58* (1.32)	4.72*** (1.73)
Party Size	0.14*** (0.02)	0.005 (0.07)	0.12*** (0.02)	0.002 (0.04)	0.12*** (0.02)	0.001 (0.04)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.001 (0.03)	0.14*** (0.03)	0.01 (0.04)
Median Party			0.94*** (0.22)	0.16 (0.97)	1.00*** (0.25)	0.004 (0.99)	1.07*** (0.30)	0.31 (0.88)	1.08*** (0.29)	0.19 (0.87)	1.48*** (0.40)	0.24 (0.69)
<i>Key strategic actors:</i>												
President Party					0.63 (0.46)	1.31 (0.97)	0.77 (0.54)	0.65 (2.06)	3.36** (1.50)	0.14 (1.18)	5.73** (2.35)	0.39 (1.10)
Incumbent PM							0.76** (0.38)	2.07** (0.89)	0.72* (0.37)	1.85** (0.88)	3.21*** (1.17)	2.53* (1.38)
<i>Contextual variables:</i>												
President Party												
×Investiture												
President Party												
×Direct Elections												
Incumbent PM												
×Conflict Termination												
Incumbent PM												
×PM Performance												
Incumbent PM												
×Cabinet Performance												
Simulated Log Likelihood	-300.52	-275.50	-272.90	-267.22	-264.51	-218.32						
Potential PM Parties	2,412	2,269	2,269	2,269	2,269	2,039						
Selection Opportunities	369	348	348	348	348	314						

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

Note: Results are from a mixed logit model where the random coefficients are assumed to be normally distributed. For each model, the 'Mean' column indicates the mean coefficient and the 'Std. dev.' column indicates the standard deviation of the coefficient. Standard errors are shown in parentheses.

Table 2: Prime Ministerial Party Choice in Eastern Europe

Regressor	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Significantly different?
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	
<i>Party-specific variables:</i>													
Largest Party	0.94 (0.86)	2.77*** (1.05)	-0.37 (0.88)	1.98*** (0.72)	-0.32 (1.01)	2.53*** (0.90)	-0.32 (1.12)	2.58*** (1.16)	-0.39 (1.09)	2.49*** (1.15)	0.59 (2.00)	4.72*** (1.73)	No
Party Size	0.24*** (0.06)	0.005 (0.06)	0.31*** (0.09)	0.002 (0.04)	0.34*** (0.10)	0.001 (0.04)	0.36*** (0.11)	0.002 (0.03)	0.37*** (0.11)	0.001 (0.03)	0.43*** (0.15)	0.01 (0.04)	Larger ($p = 0.04$)
Median Party			-0.51 (0.80)	0.16 (0.97)	-0.41 (0.87)	0.004 (0.99)	-0.40 (0.92)	0.31 (0.88)	-0.35 (0.92)	0.19 (0.87)	-1.82 (1.68)	0.24 (0.69)	Smaller ($p = 0.06$)
<i>Key strategic actors:</i>													
President Party			0.91 (1.21)	1.31 (0.97)	1.18 (1.27)	0.65 (2.08)	1.18 (1.27)	0.65 (2.08)	4.26*** (1.95)	0.13 (1.85)**	4.76* (2.67)	0.39 (1.10)	No
Incumbent PM					-0.73 (1.07)	2.07*** (0.89)	-0.50 (1.02)	1.85*** (0.88)	1.12 (2.40)	2.53* (1.38)			No
<i>Contextual variables:</i>													
President Party × Investiture													—
President Party × Direct Elections													—
Incumbent PM × Conflict Termination													No
Incumbent PM × PM Performance													No
Incumbent PM × Cabinet Performance													No
Simulated Log Likelihood	-300.52		-275.50		-272.90		-267.22		-264.51		-218.32		
Potential PM Parties	2,412		2,269		2,269		2,269		2,269		2,039		
Selection Opportunities	369		348		348		348		348		314		

* $p < 0.10$, ** $p < 0.05$; *** $p < 0.01$ (two-tailed).

Note: Results are from a mixed logit model where the random coefficients are assumed to be normally distributed. For each model, the 'Mean' column indicates the mean coefficient and the 'Std. dev.' column indicates the standard deviation of the coefficient. Standard errors are shown in parentheses. 'Significantly different?' indicates whether the parameter estimates for Eastern Europe are significantly different ($p < 0.10$) and in what direction from those for Western Europe. '—' indicates that we did not estimate separate effects in Western and Eastern Europe. The gray cells contain estimates that are based on the whole sample but that are driven almost entirely by variation in Western Europe (see note 20 for more detailed information about this).

zero.²² Practically speaking, this means that being the largest party helps one's chances of obtaining the prime ministership a little over two-thirds of the time in Western Europe but actually hurts one's chances a little under a third of the time. The fact that the distribution of the coefficient on *Largest Party* in Model 6 in Table 2 has a mean of 0.59 and a standard deviation of 4.72 means that being the largest party has a positive effect on becoming the prime ministerial party 54.9% of the time in Eastern Europe but a negative effect 45.1% of the time.

Overall, our results on party size suggest that things are a lot more complex than media accounts or conventional scholarly wisdom would have us believe when it comes to the selection of the prime ministerial party. Although it clearly helps to be a large party when competing for the prime ministership, it is not always advantageous to be the largest party. As our results indicate, there is considerable unobserved heterogeneity surrounding the effect of being the largest party on the probability of becoming the prime ministerial party. Sometimes being the largest party helps, but in a lot of situations it does not and can even be a hindrance. Our earlier qualitative description of the 1972 and 1997 government formation processes in Norway provides anecdotal evidence of the types of ad hoc and case-specific factors that contribute to this unobserved heterogeneity in the estimated effect of being the largest party.

Existing studies suggest that the median ideological party is more likely to be chosen as the prime ministerial party than other parties. Our own results suggest that this may only be the case in Western Europe. For example, the mean coefficient on *Median Party* is positive and highly statistically significant in all five of the models in which it is included in Table 1 (Western Europe) but negative and insignificant in the equivalent models in Table 2 (Eastern Europe). As the last column in Table 2 indicates, this difference across Western and Eastern Europe is statistically significant.

One explanation for this difference has to do with the dimensionality of the policy space in the two regions. Recall that the argument as to why the median ideological party is in a favorable position with respect to the other parties rests on the assumption that the relevant policy space is one-dimensional. Although the assumption of a single-issue dimension, typically a left-right dimension, is well supported in

²²To calculate this information, we first calculate the number of standard deviations that $X = 0$ is below (or above) the mean, $\mu = 2.58$:

$$z = \frac{X - \mu}{\sigma} = \frac{0 - 2.58}{4.72} = -0.55. \quad (4)$$

A z -table can then be used to calculate that 70.8% of the distribution is above 0 and 29.2% is below 0.

Western Europe (Huber & Inglehart 1995, Budge et al. 2001), it is less clear that a single issue dimension accurately captures the policy space in Eastern Europe (Pridham 2002, 80-81). As a result, we might not expect the median ideological party to be more likely to win the prime ministership than other parties in Eastern Europe; this is exactly what we find. This line of reasoning is supported by a number of recent studies that also find that the left-right ideology dimension matters less in Eastern Europe than in Western Europe (van der Brug, Franklin & Tóka 2008, Powell 2009).

An alternative explanation, though, for the different results across the two regions has to do with how median ideological parties are identified in the two regions. Recall that median ideological parties in Western Europe are identified by country experts whereas those in Eastern Europe are identified using data from the Comparative Manifestos Project. As we indicated earlier, there are good reasons to believe that median ideological parties are more reliably identified in Western Europe than in Eastern Europe. Given this, readers should be somewhat cautious in concluding that being the median ideological party does not help one obtain the prime ministership in Eastern Europe.

On the whole, little attention has been paid to the role that presidential heads of state play in the government formation process in non-presidential democracies. One reason for this is that heads of state in these regimes are often seen and portrayed as purely ceremonial figures above the fray of day-to-day political competition. To some extent, this traditional view of presidents is supported by the results shown in Models 3 and 4 where *President Party* is included additively – the mean coefficient on *President Party* is insignificant, thereby indicating that the party of the president is no more likely, on average, to be chosen as the prime ministerial party than other parties.

Note, though, that the desire and ability of presidents to influence the choice of prime ministerial party to the benefit of their own party is likely to depend on the institutional context in which coalition negotiations take place. In particular, presidents will have a greater desire to help their own party obtain the prime ministership when they are indirectly elected and will be better placed to help them when there is no investiture vote. This line of reasoning receives considerable support from the results in Models 5 and 6 where *President Party* is included interactively. Specifically, the results show that the president's party is more likely to be chosen as the prime ministerial party in both Western and Eastern Europe if the president is indirectly elected *and* there is no investiture vote. This is indicated by the positive and significant mean

coefficient on *President Party* for Models 5 and 6 in Tables 1 and 2. The probability that the president's party will obtain the prime ministership declines if the president is directly elected and/or if there is an investiture vote. This is indicated by the negative and significant coefficients on *President Party*×*Investiture* and *President Party*×*Direct Elections*. Indeed, the magnitude of the mean coefficients on these interaction terms means that the *significant* positive effect of being the president's party essentially disappears if the president is either directly elected (has less incentive to help her party) *or* if there is no investiture vote (is less able to help her party).

Until now, most political scientists have presented only anecdotal evidence showing that presidents sometimes play a consequential role during coalition negotiations (Strøm, Budge & Laver 1994, Bergman et al. 2003).²³ Our empirical analysis reveals that there is something more systematic about the importance of the party of the president when it comes to the selection of the prime ministerial party. In particular, our results are consistent with the argument that presidents play an active role in the choice of prime ministerial party, but that the president's incentive and ability to do this depends critically on the institutional environment in which the government formation process takes place. Clearly, presidents are more involved in coalition negotiations and less politically impartial than popular accounts of the role of the head of state in non-presidential democracies would have us believe.

Previous studies have presented evidence that the party of the incumbent prime minister is more likely to be chosen as the prime ministerial party than other parties (Warwick 1996, Mattila & Raunio 2004, Bäck & Dumont 2008). As we noted earlier, though, these studies likely overestimate the importance of the incumbent prime ministerial party because they include cases in which a new government forms but where there is no opportunity to select a new prime minister. What happens if we only look at new prime ministerial party selection opportunities? If we look at Models 4 and 5 in which *Incumbent PM* is included additively, as in the existing literature, then we find that the incumbent prime ministerial party is, on average, more likely to win the prime ministership than other parties in Western Europe but not in Eastern Europe. This is indicated by the positive and significant mean coefficients on *Incumbent PM* in these models in Table 1 and

²³The only exception is Kang (2009), who examines the role of presidential heads of state on the choice of prime ministerial party in seven West European countries. Our analysis differs from Kang's in a number of ways. Substantively, the most important difference is that we argue and find that the institutional environment in which the government formation process takes place – the presence or absence of an investiture vote – can constrain the ability of presidents to help their own party obtain the prime ministership.

the negative and insignificant mean coefficients on *Incumbent PM* in these models in Table 2.

Importantly, though, the standard deviations on *Incumbent PM* in Models 4 and 5 are statistically significant in both Western and Eastern Europe. This indicates that there is considerable unobserved heterogeneity around the effect of being the incumbent prime ministerial party – being the incumbent PM party matters much more in some situations than in others. The fact that the mean coefficient on *Incumbent PM* is 0.76 and that its standard deviation is 2.07 in Model 4 in Table 1 suggests that being the incumbent prime ministerial party helps one’s chances of winning the prime ministership 61.6% of the time in Western Europe but hurts one’s chances 38.4% of the time. The importance attached to being the incumbent prime ministerial party is almost the exact opposite in Eastern Europe. More specifically, the magnitudes of the mean coefficient on *Incumbent PM* and its standard deviation in Model 4 in Table 2 indicate that being the incumbent prime ministerial party is helpful only 38.9% of the time in Eastern Europe.

As we noted earlier, there are several contextual factors that might explain the “unobserved” heterogeneity in the effect of *Incumbent PM* found in Models 4 and 5. These contextual factors, which have been ignored in previous studies, relate to the way in which the previous cabinet ends and the performances of the incumbent PM party and its coalition partners while in office. These contextual factors are incorporated in Model 6.

We focus initially on the results for Western Europe (Table 1). The first thing to note is that the incumbent PM party is, on average, more likely to gain the prime ministership than other parties when the previous cabinet ends without public conflict (*Conflict Termination* = 0) and when it and its coalition partners see no change in their legislative sizes (*PM Performance* = *Cabinet Performance* = 0). This is indicated by the positive and highly significant mean coefficient on *Incumbent Party*. As predicted by the *Termination Conflict Hypothesis*, this positive effect associated with being the incumbent PM party declines and indeed disappears if the previous cabinet ends in public conflict. This is indicated by the negative and significant mean coefficient on *Incumbent PM* × *Conflict Termination*.²⁴ As predicted by the *PM Performance Hypothesis*, incumbent prime ministerial parties are more likely to retain the prime ministership if they have gained legislative seats. Evidence for this comes from the positive and significant coefficient on

²⁴This result parallels the finding in Martin and Stevenson’s (2008) recent analysis of West European governments that coalitions that end in conflict are less likely to be reconstituted with the same member parties than coalitions that end without conflict. It appears that how cabinets terminate affects both the likelihood that the incumbent government will be returned to office in its entirety and the likelihood that the prime ministerial party is reappointed.

Incumbent PM × *PM Performance*. Contrary to the *Government Performance Hypothesis*, incumbent prime ministerial parties do not, on average, have a greater probability of winning the prime ministership when the government as a whole gains legislative seats. This is indicated by the insignificant coefficient on *Incumbent PM* × *Cabinet Performance*. Note, though, that the standard deviation on this last product term is statistically significant, suggesting that the performance of the cabinet as a whole may help the incumbent PM party in some circumstances. Taken together, these results demonstrate for the first time that *dynamic* features of the bargaining environment can have a significant impact on the choice of prime ministerial party.

What about the importance of the incumbent PM party in Eastern Europe? At first glance, there is little reason to believe that the incumbent PM party is ever more likely to gain the prime ministership than other parties in Eastern Europe irrespective of how the previous cabinet ended or how well it and its coalition partners performed in office. This is because the mean coefficients on *Incumbent PM* and the various product terms that include this variable in Table 2 never reach conventional levels of statistical significance. However, it is worth noting that these coefficients all have the predicted sign and that they are not significantly different from the equivalent coefficients for Western Europe (see last column in Table 2). This leaves open the possibility that the statistical insignificance of the coefficients on *Incumbent PM* and the various associated product terms in Table 2 is simply the result of us having far fewer observations for Eastern Europe than we do for Western Europe. One final thing that we should note is that there remains some unobserved heterogeneity in the effect of the incumbent PM party in both Western and Eastern Europe despite our incorporating several contextual features of the coalition bargaining environment – the standard deviation on *Incumbent Party* in both Tables 1 and 2 remains statistically significant.

As we mentioned earlier, one criticism of existing theories of the government formation process is that they have been built and tested with Western Europe in mind. This raises the question of whether these theories apply equally well to other regions of the world. Eastern Europe offers an excellent place to evaluate this question because it is characterized by a similar set of parliamentary institutions to Western Europe but a quite distinct social, economic, cultural, and political environment (Druckman & Roberts 2005, 539). Despite differences in the non-institutional context across the two regions, the evidence presented in Tables 1 and 2 indicates that there are, on the whole, few differences in how prime ministerial parties are selected in Western and Eastern Europe. As the last column in Table 2 illustrates, only two of the eight coefficients

in Model 6 that we allow to vary are statistically different across the two regions: (i) the coefficient on *Party Size* is significantly larger in Eastern Europe ($p < 0.04$) and (ii) the coefficient on *Median Party* is significantly smaller ($p < 0.06$). In other words, being a large party matters more in Eastern Europe for gaining the prime ministership but being the median ideological party matters less. We suspect that non-institutional contextual factors such as the existence of communist successor parties probably do play an important role in the choice of the prime ministerial party in Eastern Europe. Our results, though, suggest that the failure of existing cross-national theories of coalition formation to incorporate such non-institutional contextual factors is not as problematic as some country experts have suggested.

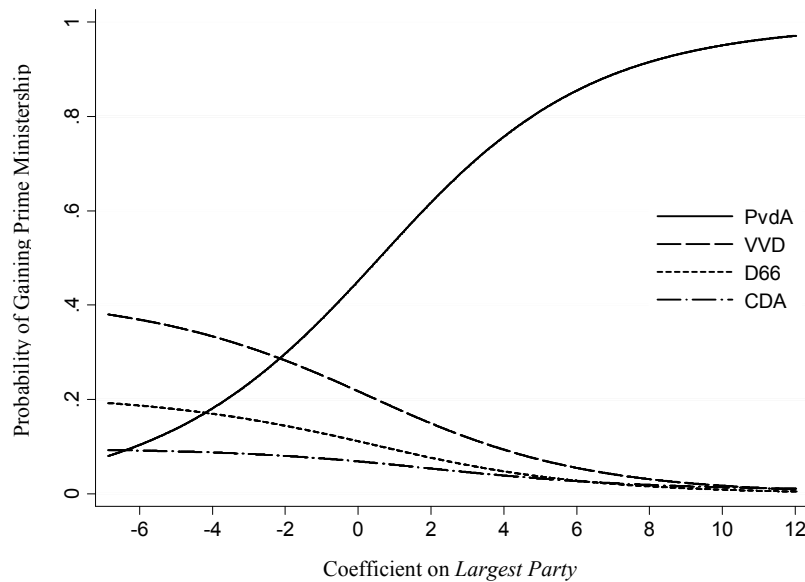
4.3 Substantive Importance

Thus far, we have examined the sign and statistical significance of the random coefficients on the explanatory variables. However, it is natural to ask whether our explanatory variables have a *substantively* important effect on the choice of prime ministerial party. We now address this issue in the context of Western Europe.²⁵ As we saw earlier, the standard deviation of the random coefficient on *Largest Party* in Model 6 in Table 1 is highly statistically significant. In Figure 1, we illustrate how this heterogeneity in the effect of being the largest party affects the mixed logit predicted probability of gaining the prime ministership in a selection opportunity resembling the one that took place in the Netherlands in 1994. Although twelve legislative parties competed for the Dutch prime ministership in 1994, we focus on the four largest parties: PvdA, VVD, D66, CDA. The four lines in Figure 1 indicate how the predicted probability of winning the prime ministership for each of these parties changes as we vary the magnitude of the random coefficient on *Largest Party* from its 2.5th percentile (-6.67) to its 97.5th percentile (11.83).

To give some background, the PvdA was the largest party in the Netherlands in 1994 with 24.7% of the legislative seats. The CDA was the median ideological party and the incumbent prime ministerial party. Although its government had terminated without public conflict, the CDA had seen its seatshare decline dramatically from 36% at the previous prime ministerial selection opportunity to 22.7% in this one. Together with its coalition partner, the CDA set a record in the number of legislative seats (32) lost since the

²⁵We focus on Western Europe here purely due to space constraints. Results from a similar analysis for Eastern Europe, along with a more extensive analysis for Western Europe, will be made available in an online appendix on the authors' webpage on publication.

Figure 1: The Predicted Probability of Gaining the Prime Ministership as the Coefficient on *Largest Party* Varies from its 2.5th Percentile to its 97.5th Percentile (Netherlands 1994)



Note: To calculate the mixed logit predicted probabilities, we set the values of the independent variables to be the same as those characterizing the parties in the 1994 prime ministerial selection opportunity in the Netherlands. The only thing that we varied was the value of the coefficient on *Largest Party*. The mean coefficient on *Largest Party* is 2.58. Predicted probabilities are based on 10,000 draws from the estimated coefficient vector and variance-covariance matrix.

introduction of universal suffrage and proportional representation in 1917. Although there are many reasons for the poor electoral performance of the CDA in 1994, some of it can be traced to the CDA's attempt to reform the expensive Dutch social insurance system (Irwin 1995, 74). The VVD and D66 won 20.7% and 16% of the legislative seats respectively. The actual outcome of the 1994 Dutch government formation process was that the PvdA obtained the prime ministership and formed a three-party coalition with the VVD and D66.

A number of things are worth noting in Figure 1. First, the PvdA has the highest predicted probability (0.66) of any of the four parties when the coefficient on *Largest Party* is at its mean (2.58). In this regard, our model correctly predicts the actual prime ministerial party. Second, and more importantly, there is considerable heterogeneity in the predicted probabilities with which the largest party – the PvdA – and the other parties obtain the prime ministership. For example, the PvdA's predicted probability of obtaining the prime ministership ranges enormously from 0.08 to 0.97. Indeed, the VVD actually has a higher predicted probability of winning the prime ministership when the *Largest Party* coefficient is less

than -2.15 ; this occurs 15.8% of the time in prime ministerial selection opportunities resembling the one that took place in the Netherlands in 1994. That our results suggest that there are circumstances in which the VVD might realistically have obtained the prime ministership in 1994 even though the PvdA was the largest party fits with real-world accounts of the Dutch government formation process indicating that a VVD-led coalition with the D66 was a real possibility (Irwin 1995, 76). Finally, our results clearly indicate that being the incumbent prime ministerial party is not always the advantage that previous studies have suggested (Warwick 1996, Mattila & Raunio 2004, Bäck & Dumont 2008, Kang 2009). Despite being the incumbent prime ministerial party (and the median ideological party), the CDA's predicted probability of gaining the prime ministership is almost always lower than that of all the other parties. The low predicted probability for the CDA can be attributed directly to its poor performance in office.

Rather than focus on heterogeneity in the effects of variables such as *Largest Party*, we might also be interested in how much more likely a party is to obtain the prime ministership if it is, say, the median ideological party or the incumbent prime ministerial party. In Table 3, we examine the substantive importance of being the largest party or the median ideological party in a prime ministerial selection opportunity again resembling the one in the Netherlands in 1994. In the first column, we indicate the mixed logit predicted probabilities, based on the results from Model 6 in Table 1, that each of the four largest parties gains the prime ministership in the baseline scenario where the independent variables take on the actual values observed in the real-world selection opportunity. Standard errors are shown in parentheses. As indicated at the top of the first column, the PvdA was the largest party and the CDA was the median party. In the subsequent columns, we indicate the predicted probabilities of obtaining the prime ministership for each party when we transfer either the largest party or median party status from the real-world holder of these characteristics to one of the other three parties. It is important to note that when we transfer the largest party status from one party to the next, we also swap the party sizes of the two parties. We also indicate the change in predicted probability from the baseline scenario to the counterfactual one.

In the baseline scenario, the PvdA has the largest predicted probability (0.61) of winning the prime ministership. Although this probability always declines when we transfer the PvdA's party size and largest party status to one of the other parties, the extent to which it declines depends a great deal on the identity of the recipient party. For example, the predicted probability that the PvdA becomes the prime ministerial

Table 3: The Substantive Importance of Being the Largest Party and the Median Ideological Party (Netherlands 1994)

<i>Largest Party and Party Size</i>									
Party	PvdA		PvdA → CDA		PvdA → VVD		PvdA → D66		Change in Probability
	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	
PvdA	0.61 (0.11)	0.24 (0.05)	0.13 (0.03)	-0.37*** (0.10)	0.07 (0.01)	-0.48*** (0.12)	0.07 (0.01)	-0.55*** (0.12)	
CDA	0.10 (0.10)	0.35 (0.11)	0.10 (0.10)	0.25*** (0.09)	0.10 (0.10)	0.00 (—)	0.10 (0.10)	0.00 (—)	
VVD	0.13 (0.03)	0.18 (0.04)	0.61 (0.11)	0.05** (0.02)	0.13 (0.03)	0.48*** (0.12)	0.13 (0.03)	0.00 (—)	
D66	0.07 (0.01)	0.09 (0.02)	0.07 (0.01)	0.03** (0.01)	0.61 (0.11)	0.00 (—)	0.61 (0.11)	0.55*** (0.12)	

<i>Median Party</i>									
Party	CDA		CDA → PvdA		CDA → VVD		CDA → D66		Change in Probability
	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	
PvdA	0.61 (0.11)	0.12** (0.06)	0.56 (0.11)	0.12** (0.06)	0.58 (0.11)	-0.05** (0.03)	0.58 (0.11)	-0.03* (0.02)	
CDA	0.10 (0.10)	-0.05 (0.05)	0.05 (0.07)	-0.05 (0.05)	0.05 (0.07)	-0.05 (0.04)	0.05 (0.07)	-0.04 (0.04)	
VVD	0.13 (0.03)	-0.03** (0.02)	0.29 (0.07)	-0.03** (0.02)	0.09 (0.03)	0.16*** (0.06)	0.09 (0.03)	-0.04** (0.02)	
D66	0.07 (0.01)	-0.02** (0.01)	0.04 (0.01)	-0.02** (0.01)	0.21 (0.06)	-0.03*** (0.01)	0.21 (0.06)	0.14*** (0.05)	

Note: The results presented here are for a prime ministerial selection opportunity resembling the one that took place in the Netherlands in 1994. The first column indicates the mixed logit predicted probabilities for each party in the baseline scenario when the independent variables take on the actual values observed in the real-world selection opportunity. The remaining columns indicate either predicted probabilities or changes in predicted probabilities as we transfer (i) the party size and largest party status from the PvdA to one of the other three parties (top half of table) or (ii) the median party status from the CDA to one of the other three parties (bottom half of table). Standard errors are shown in parentheses. Statistically significant changes in predicted probability are indicated: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed). “—” indicates that there was no change in predicted probability and, hence, no estimated standard error. Estimates are based on simulations using 10,000 draws from the estimated coefficient vector and variance-covariance matrix.

party declines by 0.37 when we transfer the PvdA's party size and largest party status to the CDA but by 0.48 and 0.55 when we transfer these characteristics to the VVD and D66 respectively. Despite this variation, the changes in predicted probability that the PvdA becomes the prime ministerial party are substantively large in all three of the counterfactual scenarios. That party size plays a substantively important role in the selection of the prime ministerial party is further illustrated by the fact that whichever party obtains the PvdA's party size and largest party status immediately becomes the party most likely to gain the prime ministership.

What about the substantive importance of being the median ideological party? Once again, this varies depending on who is the median party. The CDA was the median party in the Netherlands in 1994 and its predicted probability of becoming the prime ministerial party is 0.10. Although this probability always declines if we transfer its median party status to another party, the change in predicted probability in each of the counterfactual scenarios is never statistically significant. In this sense, the CDA's median party status does not increase its likelihood of gaining the prime ministership. In contrast, being the median party does help the other parties. For example, the predicted probability of becoming the prime ministerial party increases by 0.12, 0.16, and 0.14 if the PvdA, VVD, and D66 respectively were the median ideological party. Although not as large as the change in probability associated with party size and largest party status, it is clear that the magnitude of the change in probability linked to the median party status is substantively important. It is also worth noting that the predicted probabilities of those parties that experience no change in their median party status do not change in a proportional way. In other words, the substitution patterns among these parties is not proportional and, hence, the IIA assumption is violated. This is something that is consistently observed throughout the counterfactual scenarios in Tables 3 and 4 and provides yet further evidence to support our decision to employ an MXL model rather than the more standard CL model.

In Table 4, we examine the substantive importance of being the incumbent prime ministerial party in the same Dutch selection opportunity as before. In the first column, we indicate the mixed logit predicted probabilities for each party in the baseline scenario. Standard errors are once again shown in parentheses. As indicated at the top of the first column, the CDA was the incumbent prime ministerial party in the Netherlands in 1994. The remaining columns indicate either predicted probabilities or changes in predicted probabilities as we transfer the incumbent PM status from the CDA to one of the other three parties (i) when the previous cabinet ended without public conflict (top half of table) or (ii) when the previous cabinet ended

Table 4: The Substantive Importance of Being the Incumbent Prime Ministerial Party (Netherlands 1994)

<i>Incumbent PM when Conflict Termination = 0</i>									
Party	CDA		CDA → PvdA		CDA → VVD		CDA → D66		Change in Probability
	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	Predicted Probability	Change in Probability	
PvdA	0.61 (0.11)	-0.37*** (0.16)	0.24 (0.10)	-0.06** (0.03)	0.55 (0.11)	-0.06** (0.03)	0.54 (0.11)	-0.07** (0.03)	
CDA	0.10 (0.10)	0.43*** (0.17)	0.53 (0.10)	0.23** (0.12)	0.33 (0.08)	0.31 (0.08)	0.31 (0.08)	0.21** (0.11)	
VVD	0.13 (0.03)	-0.03 (0.03)	0.10 (0.03)	-0.08 (0.08)	0.05 (0.06)	-0.08 (0.08)	0.06 (0.02)	-0.07*** (0.03)	
D66	0.07 (0.01)	-0.01 (0.02)	0.05 (0.02)	-0.03*** (0.01)	0.03 (0.01)	-0.03*** (0.01)	0.04 (0.05)	-0.03 (0.06)	

<i>Incumbent PM when Conflict Termination = 1</i>									
Party	CDA		CDA → PvdA		CDA → VVD		CDA → D66		Change in Probability
	Predicted Probability	% Change in Probability	Predicted Probability	% Change in Probability	Predicted Probability	% Change in Probability	Predicted Probability	% Change in Probability	
PvdA	0.63 (0.10)	-0.48*** (0.14)	0.15 (0.08)	-0.08*** (0.03)	0.55 (0.11)	-0.08*** (0.03)	0.55 (0.11)	-0.08*** (0.03)	
CDA	0.06 (0.08)	0.53*** (0.16)	0.59 (0.10)	0.28*** (0.10)	0.33 (0.08)	0.28*** (0.10)	0.32 (0.08)	0.26*** (0.10)	
VVD	0.14 (0.03)	-0.03 (0.04)	0.11 (0.03)	-0.11** (0.06)	0.03 (0.05)	-0.11** (0.06)	0.06 (0.02)	-0.08*** (0.03)	
D66	0.07 (0.01)	-0.01 (0.02)	0.06 (0.02)	-0.04*** (0.01)	0.03 (0.01)	-0.04*** (0.01)	0.03 (0.04)	-0.05 (0.05)	

Note: The results presented here are for a prime ministerial selection opportunity resembling the one that took place in the Netherlands in 1994. The first column indicates the mixed logit predicted probabilities for each party in the baseline scenario. The remaining columns indicate either predicted probabilities or changes in predicted probabilities as we transfer the incumbent prime ministerial party status from the CDA to one of the other three parties (i) when the previous cabinet ended without public conflict (top half of table) or (ii) when the previous cabinet ended with public conflict (bottom half of table). When transferring the incumbent prime ministerial party status, we also transferred the incumbent PM and cabinet performances. Standard errors are shown in parentheses. Statistically significant changes in predicted probability are indicated: * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$ (two-tailed). Estimates are based on simulations using 10,000 draws from the estimated coefficient vector and variance-covariance matrix.

with public conflict (bottom half of table). When transferring the incumbent prime ministerial party status, we also transfer the incumbent PM and cabinet performances.

The first thing to note is that the predicted probability that the CDA becomes the prime ministerial party always increases in a substantively and statistically significant manner when we transfer its incumbent PM status and performance in office to one of the other parties. In 1994, the CDA was clearly hurt by its poor performance in office. If it could have disassociated itself from its incumbent PM status and poor record in office as in the counterfactual scenarios here, the CDA would have stood a substantially greater chance of becoming the prime ministerial party. The extent to which the CDA's predicted probability of winning the prime ministership increases depends on which party receives the incumbent prime ministerial party status. For example, its predicted probability increases by 0.43, 0.23, or 0.21 depending on whether we transfer the incumbent PM status to the PvdA, the VVD, or the D66 respectively. Indeed, it is worth noting that the CDA is actually estimated to be the party most likely to obtain the prime ministership if the PvdA had been the incumbent prime ministerial party.

The second thing to note is that the incumbent PM status is not equally detrimental to all of the parties. Although the incumbent PM status lowers the probability of becoming the prime ministerial party for all the parties, the changes in predicted probability are only statistically significant for the CDA and PvdA. Finally, the results in the lower half of Table 4 indicate that each party's probability of winning the prime ministership is always lower when they are the incumbent PM party and the previous cabinet ends in public conflict. For example, the probability that the PvdA becomes the prime ministerial party declines by 0.37 when it is the incumbent PM party and the previous cabinet ends *without conflict* but by 0.48 when it is the incumbent PM party and the previous cabinet ends *with conflict*. Overall, the magnitudes of the changes in predicted probability throughout Table 4 clearly indicate the substantive importance of the incumbent PM party status, the performance of the incumbent PM party, and the manner of cabinet termination for the choice of prime ministerial party.

5 Conclusion

Although the government formation literature is one of the largest in all of political science, relatively little attention has been paid to the factors that influence the choice of prime ministerial party. That so few studies

have examined the choice of prime ministerial party is somewhat puzzling given that the prime ministerial portfolio draws by far the most interest from political actors and the public alike, and that whichever party controls it enjoys a disproportionate influence when it comes to setting the agenda, making policy, and allocating office benefits. One potential explanation for why so few scholars have examined the determinants of prime ministerial party choice may be the widespread belief, promoted by media accounts and conventional scholarly wisdom, that all one needs to know is the identity of the largest party. As our analysis indicates, though, things are much more complicated than this and other factors besides largest party status can have a substantively important impact on the choice of prime ministerial party.

Party size clearly matters. Larger parties are much more likely to gain control of the prime ministership than smaller parties. Yet whether there is a specific bonus for being the *largest* party is less clear cut. As we indicated earlier, previous studies of prime ministerial party choice are not well-designed to address this particular issue. Our own results suggest that there is a largest party bonus on average in Western Europe but not in Eastern Europe. Significantly, our analysis reveals that there is considerable unobserved heterogeneity in the importance of being the largest party. For example, our results for Eastern Europe suggest that the largest party status is almost as likely to reduce one's chances of gaining the prime ministership as it is to increase them. Even in Western Europe, the largest party status can be expected to reduce one's likelihood of becoming the prime ministerial party about a third of the time.

Media accounts of the government formation process rarely highlight the role played by the head of state. This is probably because heads of state are typically portrayed as symbolic or ceremonial figures who steer clear of the more nitty-gritty aspects of political competition. Over the years, though, political scientists have presented anecdotal evidence of cases in which presidents in non-presidential democracies have played a decisive role during the government formation process. Our analysis provides some of the first systematic evidence to support the idea that presidents play an active role in the choice of prime ministerial party. More specifically, our results are consistent with the idea that indirectly-elected presidents will have an incentive to help their own parties gain the prime ministership but that their ability to do this effectively will depend on the institutional environment in which they act.

All previous studies of prime ministerial party choice conclude that incumbency is an advantage when it comes to winning the prime ministership. As we demonstrate, though, this is not quite accurate. Any

benefit that accrues to the incumbent PM party depends critically on dynamic features of the government formation process such as how the incumbent cabinet ends and how well the incumbent PM party and its coalition partners perform in office. The modifying effects of these types of dynamic contextual features on prime ministerial party choice have not previously been examined. Our analysis reveals, though, that these dynamic features are critically important. Incumbency can be an advantage but only when the incumbent cabinet ends without conflict or when the performance of the incumbent government is not too dismal. When cabinets end conflictually and/or when performance is poor, then incumbency turns out to be a distinct liability.

Our analysis also contributes to the existing government formation literature by providing the first analysis of prime ministerial party choice in Eastern Europe. One criticism of existing theories of the government formation process is that although they take the effect of differences in institutional structure across countries quite seriously, they almost always overlook the potential impact of non-institutional contextual factors that differ across countries. Examining the government formation process in Eastern Europe offers a good opportunity to evaluate the strength of this criticism; although Eastern Europe has a similar institutional environment to Western Europe, its social, economic, and cultural context is quite distinct. Our analysis suggests that, on the whole, there are few differences in the factors that influence the choice of prime ministerial party in Western and Eastern Europe. The only obvious difference that we found was that being the median ideological party matters in Western Europe but not in Eastern Europe. Even here, unavoidable measurement issues with identifying the median ideological party in Eastern Europe make us reluctant to necessarily conclude that there are differences across the two regions when it comes to the impact of median party status on prime ministerial party choice.

Our use of a mixed logit model represents both a substantive and methodological advance over previous work. Although the MXL model is more complicated than the familiar CL model, our computer code (written in **R**) to estimate mixed logits makes it more accessible to applied researchers. Given the obvious substantive and methodological benefits of random coefficient models such as the mixed logit, we expect these methods to increasingly be adopted by comparative political researchers as the practical limitations to their use continue to fall away (Beck & Katz 2007).

Country specialists often question the utility of constructing general theories of government formation

and testing them with cross-national statistical models on the grounds that these theories and tests inevitably omit unmeasured factors, such as personality clashes and ad hoc critical events, that can have an important impact on the government formation process. In contrast to previous empirical work, our use of a mixed logit model that is specifically designed to allow for unobserved heterogeneity enables us to take these concerns seriously. The result is that we are able to present a more nuanced answer to the question of “who wins” parliamentary elections that challenges much of the conventional scholarly wisdom in this area.

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