Party system institutionalization and government formation in new democracies

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The process of government formation in parliamentary democracies has far-reaching implications for the delegation of power, accountability, and policy outcomes. Although there is a substantial literature on government formation, it is largely focussed on established, mainly West European, democracies in which institutions are stable, actors are politically socialized in the system, and voters are routinely faced with a familiar array of choices at elections. Conversely, very little is known about government formation in new democracies in which these features are less evident. Can we therefore reasonably expect the explanations for government formation in long-established democracies to “travel” to new democracies? If not, then what else should be taken into account?

One of the key differences between established and new democracies is the extent of party system institutionalization. Party systems set the parameters within which coalition bargaining takes place and provide actors in the process with the information – relative party strength and ideological positions – needed to make strategic calculations on potential coalition configurations. But in new democracies, party systems are less institutionalized and the patterned interactions between parties that are evident in established democracies are not frequently observed. Instead, parties experience large fluctuations in parliamentary strength from election-to-election, new relevant parties frequently emerge onto the political scene, and parties fail to develop stable programmatic appeals which other actors in the bargaining process can use as informative cues for decision-making. All of which introduces a greater level of uncertainty into the coalition formation process.

In this research, I argue that weak party system institutionalization has three implications for the study of government formation in new democracies. First, in established democracies incumbents are generally thought to possess an advantage in the coalition formation process.
but when party systems are not institutionalized incumbents may be much weakened or even excluded from parliament following the next round of elections. Second, former dominant parties can inhibit the development of programmatic interaction between participants in the coalition formation process. Finally, the entry of new parties can add considerable uncertainty to the coalition bargaining process as they are “unknown entities”. This is exacerbated in new democracies where weakly institutionalized party systems can allow new parties to enter the bargaining process with considerable legislative strength.

This research therefore makes three contributions to the existing literature. It is the first study of government formation that examines the effect of party system institutionalization, focussing specifically on the differences that arise when party systems are weakly institutionalized. Second, it highlights some of the distinctive features of government formation in new democracies. Finally, it does this by presenting the first study of government formation in new democracies that is methodologically comparable to the leading research on Western Europe in which the government formation opportunity is selected as the unit of analysis.

The analysis is based on a new dataset of 27,000 potential governments in 10 new democracies in Central and Eastern Europe (CEE) between 1990 and 2011. Previous studies of government formation in new democracies have adopted empirical strategies that use individual parties or cabinet coalition status as the unit of analysis. This literature has provided some interesting results, however, the central question for scholars of government formation is not why a particular party got into government but instead why one coalition was chosen over the numerous available alternatives in any given bargaining situation. Providing answers to this question requires data for every potential government that could
form in each formation opportunity and an estimation strategy that takes into account that potential governments are interrelated; if one potential government is more likely to form the cabinet then some other choice alternatives will be less likely.\textsuperscript{10} In this research I address this issue by using the mixed effects logit model as described by Glasgow et al.

The results of the analysis provide support for the proposition that weak party system institutionalization influences government formation in new democracies. Potential coalitions that closely resemble the incumbent government are less likely to take office when the formation opportunity occurs following an election. This reflects the volatility of incumbent party bargaining power which tends to decline as governments fail to fulfil policy expectations and engage in clientelist or corrupt practices in new democracies. On the other hand, incumbency is an advantage when the formation opportunity arises during a parliamentary term. This is an indicator of the incoherence of interactions between opposition parties in the legislature which is another characteristic of weak party system institutionalization. The results also show that former dominant parties are much less likely to form the government and this effect is stronger in later elections. The Communist Successor Parties’ (CSP) inability to develop the kind of programmatic links with the electorate that are common to institutionalized parties, combined with their failure to form political alliances with other parties based on ideological congruence has placed CSPs at a systematic disadvantage in the coalition formation process. Finally, and contrary to expectations, although new parties achieve notable electoral success in CEE, a potential coalition that contains a new party is less likely to form the cabinet than other potential coalitions however, this finding is not statistically significant. On this particular dimension, weak party system institutionalization does not influence government formation in new democracies.
Taken together, these results provide new insights into the determinants of government formation. The data used here draws specifically on the new democracies of CEE, where the parliamentary institutional arrangements are comparable to those commonly found in Western Europe.\textsuperscript{11} However, the implications of this research are potentially generalizable to presidential multi-party systems such as the new democracies of Latin America where it is argued that there are strong incentives for legislative coalition-building even in the absence of the executive’s need to retain the confidence of the legislature.\textsuperscript{12}

**Party system institutionalization and government formation**

The theoretical literature on government formation has offered a large number of explanations that have informed empirical research.\textsuperscript{13} Early office-seeking theories provide the expectation that actors in the government formation process will seek to form minimal winning governments\textsuperscript{14} while policy-seeking models emphasise the importance of ideological compatibility between coalition partners and parties’ strategic position in the policy space.\textsuperscript{15} More recently, scholars have sought to demonstrate the centrality of institutions, focussing on the importance of portfolio allocation, the structure of the bargaining process, and the formal and informal rules of the game.\textsuperscript{16} A common thread that runs through the theoretical literature is the assumption that the current bargaining environment contains all the information that actors need to make decisions regarding coalition formation. Prior experience, historical factors, and past behavior are absent from almost all theories.\textsuperscript{17} This is surprising as we know from empirical studies that parties’ past behavior influences coalition membership\textsuperscript{18} and research has also shown that parties prefer to form coalitions with ‘familiar’ partners.\textsuperscript{19} For actors in the government formation process the ability to draw on experience and use
retrospective judgements of other actors is a way of reducing uncertainty when selecting coalition partners.

But this capacity to use experience and retrospective judgement is undermined when actors in the formation process frequently change identity, policy preferences, or relative strength in the legislature. This points to the importance of patterned interactions between actors in the government formation process which only occurs when party systems are institutionalized. Most studies of party system institutionalization begin from Huntington’s definition of institutionalization as: “The process by which organizations and procedures acquire value and stability.” For party systems, institutionalization means that “actors entertain clear and stable expectations about the behavior of other actors, and hence about the fundamental contours and rules of party competition and behavior.”

More concretely, Mainwaring and Scully identify four conditions of institutionalized party systems: first, patterns of party competition should exhibit some regularity. If the identity or electoral strength of relevant parties is subject to high levels of fluctuation or complete change then a party system is not institutionalized. Second, parties should have stable roots in society which enables them to structure preferences and ensure regularity in how people vote. Third, the electoral process and political parties are adhered to and respected by major political actors, thus conferring legitimacy on them. Finally, party organizations are not subordinated to the party leader. In this research I focus on the first of these criteria which Mainwaring and Scully describe as the most important condition in their framework. In doing so, I argue that the stability of politically relevant parties is the defining characteristic of an institutionalized party system. This stability is exhibited via low levels of fluctuation in party vote share and coherent patterns of interaction between parties based on ideological
congruence. Stability or instability results primarily from elections which is the focus of most studies of party system institutionalization.\textsuperscript{23}

The institutionalization of the party system therefore has considerable implications for government formation. Party systems provide the essential structure of the coalition bargaining environment as they contain information on the relative bargaining weights and preferences of parties. Each party in the system uses this information when making decisions on potential coalition partners. What marks party systems in new democracies as distinct from those of established democracies is the lack of ‘systemness’ and concomitant higher level of uncertainty.\textsuperscript{24} Of course, uncertainty can never be completely eliminated from decision-making but where party systems are institutionalized, actors can make reasonable estimates of the policy preferences of other parties and their likelihood of retaining their legislative strength following an election.

Numerous empirical studies have shown that the party systems of new democracies are weakly institutionalized compared to established democracies.\textsuperscript{25} Various measures have been used to demonstrate this though the most common is electoral volatility which assesses the stability of party competition. In established democracies average volatility since the inauguration of democracy has been 11 points as measured by the Pedersen index, but in new democracies this rises to 35 and in CEE it is higher still at 42.\textsuperscript{26} Furthermore, new parties have found it easy to gain electoral support and break into party systems in new democracies which is an indicator of open and unstable structures of party competition.\textsuperscript{27} Between 1990 and 2004 an average of 5.6 new parties emerged at each election in CEE with an average vote share of 19 percent while Mainwaring et al. found that new parties received 35 percent of the vote between 1990 and 2002 in five Latin American countries.\textsuperscript{28} By contrast, between 1945
and 1991 an average of only one new party entered Western party systems, winning an average of just 2 percent of the vote.\textsuperscript{29} A final measure of party system institutionalization is the level of partisanship among the electorate; this is an indicator of the rootedness of political parties in society. High levels of partisanship can also serve to stabilize party vote shares and thus reduce electoral volatility.\textsuperscript{30} Partisanship tends to be lower in new democracies with 37 percent of voters expressing a partisan attachment compared to 54 percent in established democracies.\textsuperscript{31} There are, of course, variations within the universe of new democracies and Noam Lupu has shown that partisanship in parts of Latin America resembles that of established democracies.\textsuperscript{32}

This all indicates that the patterns of interaction between parties in the coalition bargaining environment are subject to substantial change from one formation opportunity to the next, suggesting that some of regularities associated with government formation in the established literature may be absent or function differently in new democracies. Additional factors that are specific to new democracies also need to be considered. In the following sections I outline three implications of weak party system institutionalization for government formation.

**Hypotheses**

**The incumbency (dis)advantage**

Incumbency is usually seen as an advantage for participants in the government formation process.\textsuperscript{33} Powell found that incumbents held onto office around 44 percent of the time following an election and were replaced completely just 17 percent of the time\textsuperscript{34} while Martin
and Stevenson showed that 35 percent of incumbent coalition governments immediately returned to office.\textsuperscript{35}

Two factors provide the theoretical foundations of the incumbency advantage. First, parties have a preference to form governments with previous coalition allies as they are familiar with their policy preferences, internal constraints and modes of working. Previous experience of working together also reduces the bargaining costs of government formation.\textsuperscript{36} Second, some institutional rules and practices favor incumbents. An incumbent cabinet can act as a reversion point in coalition negotiations which gives it an advantage if a new alternative government cannot be formed.\textsuperscript{37} The rules for selecting a \textit{formateur} can also hand incumbents an advantage. In some systems incumbent parties are given the first opportunity to form a new government,\textsuperscript{38} while the party of the incumbent prime minister is more likely to be selected as the \textit{formateur}.\textsuperscript{39} The prime minister is likely to favor re-forming a cabinet with previous governing allies unless poor election results or intra-coalition disputes preclude this. However, the effect of the constitutional rules of government formation can be discounted in some new democracies. For example, across CEE no country gives incumbents the first shot at forming a new government. In most instances, convention dictates that the largest party in the legislature will be asked by the head of state or the speaker of the legislature to try and form a government.\textsuperscript{40}

The observable incumbency advantage in established democracies leads Bernhard and Karakoç to note that incumbency disadvantage is evidence of irregular patterns of party competition.\textsuperscript{41} By deduction, we may then, expect to find an incumbency disadvantage in new democracies where party competition is less regularized due to weak party system institutionalization. Prior research has shown that incumbents in Latin America and the
Caribbean tend not to be returned to office. Similarly, in CEE Roberts found that just under a third of governing parties returned to office following elections and only two of the thirty-four incumbent governments he examined were returned in their entirety. Single country studies of Brazil and India have also reported evidence of an incumbency disadvantage. Conversely, both Druckman and Roberts and Döring and Hellström have found that incumbent parties are more likely to become members of the new cabinet in CEE.

The existing literature therefore indicates that there is a link between weakly institutionalized party systems and incumbency disadvantage but how can this be explained? The principal explanation is that incumbents are most likely to be affected by high levels of electoral volatility that afflict new democracies. There are two reasons for this; first, incumbents in new democracies suffer from what Roberts terms hyperaccountability. This is a combination of poor incumbent performance on key policy issues (such as unemployment) together with a more generalized propensity to vote against governing parties. In the latter case it is argued that politicians have been unable to deliver on policy promises as the demands of transition and modernization exceeded the capacity of governments to act. This is particularly true in CEE where wholesale economic reform often bore high short-term costs with the promise of medium-to-long-term benefits. However, politicians could only promise ‘jam tomorrow’ so many times before voters tired of waiting and soon anti-political parties began to emerge to offer these voters an electoral outlet for their disappointment. Indeed, CEE electorates have demonstrated a great proclivity to punish parties for poor policy performance. Roberts has shown that 88 percent of governments lost votes at elections in CEE with an average loss of 15 per cent – more than five times greater than the average loss for governing parties in established democracies.
The second explanation for why incumbents will particularly suffer from high levels of electoral volatility is corruption. Voters prefer effective governments to ineffective governments and when incumbents are found to be corrupt or incompetent, they are likely to experience electoral losses. New democracies are more likely to exhibit higher levels of corruption than established democracies due to the incentives and opportunities on offer. In terms of opportunities, the economic reform process in CEE offered government officials numerous avenues to engage in rent-extraction by shaping legislation and influencing the privatization process. The incentives for corruption are further increased where party linkages are not based on programmatic appeals but instead on the personalistic or clientelistic appeals that are associated with weakly institutionalized party systems. When partisan appeals are absent, parties have less status and value of their own. Their success or failure becomes inextricably linked to that of the party leaders which increases the incentives to engage in exploitative or corrupt practices since the survival and integrity of the party are not the leaders’ primary concerns; Kitschelt has noted that there is an empirical association between clientelist linkage politics and political corruption. Furthermore, recent research has shown that when the rewards for rent-extracting behavior increase over time due to learning, the build up of rent-extracting networks, and fiscal windfalls, the likelihood that incumbency conveys a disadvantage increases. This is due to the desire of voters to replace corrupt incumbents even with challengers of lower quality.

Taken together, hyperaccountability and corruption lead to higher levels of electoral volatility that particularly afflict governing parties. As a result, incumbent party bargaining power declines from one election to the next, thus incurring an incumbency disadvantage.
This indicates that incumbency is a disadvantage due to the highly changeable nature of the coalition bargaining environment in new democracies which largely occurs following elections when voters can pass judgement on governing parties. However, government formation opportunities frequently arise between elections, particularly in CEE – around half of the formation opportunities in the dataset for this research occurred during a parliamentary term. In such instances large scale changes in the bargaining environment are unlikely to have taken place. Even so, weak party system institutionalization can influence the formation process but in a different way.

Governments terminate mid-term for a variety of reasons, often due to the loss of a vote of no-confidence resulting from a coalition partner exiting the cabinet. But these governments frequently re-form without an election being held. Frequently, the government that re-forms is a minority administration comprised of a subset of parties from the prior cabinet. One of the reasons for this is that with weakly institutionalized party systems the parliamentary opposition is incoherent, often fragmented, and incapable of acting as a bloc. For example, in Poland, the 2001 majority coalition of the Democratic Left Alliance (SLD) and Peasant Party (PSL) governed until 2003 when the PSL was expelled and subsequently, an SLD minority government managed to stay in power until the next election due to the weakness of the opposition.\textsuperscript{57} Thus I expect the role of incumbency in new democracies to be dynamic: if the formation opportunity occurs following an election, incumbency will be a disadvantage. If the formation opportunity occurs during a parliamentary term then incumbency will be an advantage.
**Former dominant parties**

In many new democracies the former ruling authoritarian party persists as a relevant political actor in the democratic era. These reinvented dominant parties are often ideologically moderate and therefore, not analogous to extremist or anti-system parties found in established democracies. However, their very presence has an impact on both party system institutionalization and, in turn, government formation.\(^{58}\)

Former dominant parties affect party system institutionalization by influencing the stability of politically relevant parties and the development of regularized interactions between parties in the system. On the one hand, in transitional democracies the ex-ruling party is usually the most organized and best resourced party so it can act as an anchor for the nascent party system around which other contenders can develop.\(^{59}\) Grzymała-Busse offers a more nuanced view, arguing that the mode of a dominant party’s exit from power and its subsequent reinvention shapes institutionalization. Where former ruling parties negotiated the transition to democracy with a recognizable opposition as in Hungary, Poland and Taiwan\(^{60}\), thus ceding its capacity to exploit state resources, and the parties themselves remained unified in the post-authoritarian era rather than dispersing into numerous other parties, robust competition was more likely to develop.\(^{61}\) Where the former ruling parties dominated the transition process and ex-elites fragmented into various new parties, competition for office was much less routinized.

In terms of government formation, two factors are relevant. The first is the extent to which other parties were tolerated under the dominant party regime.\(^{62}\) This affects the degree to which alternatives to the dominant party were already partly institutionalized at the onset of
democracy. In Mexico and South Korea parties were allowed to compete in elections that maintained the facade of legitimacy for the regime, meaning voters already had a level of familiarity with the party alternatives. By contrast, in CEE the party-state completely dominated political life and opposition organizations were not tolerated. As such, opposition parties with a coherent organization were largely absent; instead the opposition was made up of umbrella organizations of many smaller outfits. One effect of the pervasive nature of the Communist Parties in CEE was also to foster a deep distrust of the very notion of a ‘political party’, and in particular, of the former ruling parties even after their post-authoritarian reinventions. Therefore, the establishment of stable, relevant political parties has been more difficult in CEE states.

The second factor relating to the role of former dominant parties is the effect that they have on the content of party competition. Party systems are more likely to become institutionalized where party competition is based on underlying societal cleavages; in their examination of Latin America, Roberts and Wibbels show that where cleavages are fluid, electoral volatility tends to be higher. However, former dominant parties can prevent the development of regularized party competition if other actors in the system do not recognize them as ‘normal’ participants in party politics. In Taiwan the former ruling Kuomintang (KMT) initially responded to its removal from office in 2000 by attacking the managerial competence of the new government. However, as these attacks failed, the KMT soon learned to begin competing with the Democratic Progressive Party-led government on policy issues that reflected salient cleavages, which helped to routinize competition between parties. By contrast, in CEE party competition for much of the democratic period, and particularly competition for government, was structured by the ‘regime divide’ between successors to the former ruling parties and the successors to the parties that made up the opposition at the transition to democracy.
repeated recycling of old hostilities meant that Communist Successor Parties struggled to become regular players in the coalition game as parties in the system did not interact on the basis of ideological or policy congruence.

It is therefore expected that in new democracies where opposition parties were not tolerated under authoritarian rule and subsequent party competition takes place along a ‘regime divide’ rather than on programmatic differences between parties, coalitions that contain the successors to former dominant parties will be less likely to take office.

However, one of the expectations of democratic consolidation is that party systems will become more institutionalized over time. If so, this would mean that party competition develops into contestation over policy, particularly once former dominant parties have been in government and can then compete on the basis of their record. One would also expect that as the elites who first contested the struggle for democracy exit the political scene and are replaced by politicians that had no first-hand stake in that battle, then matters of policy and competence would override historical divisions.

Does this, then, suggest that former dominant parties’ chances of forming the government will improve as democracy wears on? This depends on the conduct of those parties once they are able to compete on the basis of their records. If former dominant parties become regular players in the coalition bargaining arena then they are subject to the same vagaries of politics as all other parties. As the former ruling parties managed to gain office in many CEE countries during the tumultuous period of early democratic and economic reform, few competed with positive records at subsequent elections and were susceptible to challenges from new anti-establishment parties that emerged during the ‘third generation elections.’
therefore hypothesize that former dominant parties will be less likely to form the government in the late-democratic period.69

A final hypothesis on the role of dominant parties in the government formation process is drawn from the empirical literature. Druckman and Roberts have argued that CSPs in CEE are more likely to form oversized coalitions when they do get into government. This allows coalition partners “to distance themselves from the CSP in the eyes of voters and thus minimize electoral punishment” and also acts as a moderating effect on potentially extreme policies that the CSP may propose.70 Preliminary evidence suggests that CSPs tend to form oversized governments but this hypothesis is untested in a rigorous model of government formation. Therefore, this study tests the hypothesis that dominant parties are more likely to form oversized coalitions.

**New parties**

The accession of new parties to the party system is not unique to new democracies but the frequency and prima facie success of these parties in CEE in particular is not replicated in Western Europe.71 New parties entering parliament have a number of potential consequences for government formation. Firstly, they increase the level of complexity in coalition negotiations as established actors may be unsure of their policy positions, internal organization, and particular circumstances. For example, is it possible to determine if a new party will be a disciplined and reliable coalition partner? Furthermore, if the entry of new parties to the party system is a frequent occurrence, this complexity perpetuates with implications not just for government formation but also the quality of representation and
policy consistency which are considered to be essential characteristics of a stable democracy.72

Although some suggest that new parties find it relatively easy to break into party systems in new democracies others demur. Sikk argued that most of the volatility evident in CEE party systems is a result of splits and mergers between existing parties.73 Therefore, seemingly new parties are not new at all in the sense that they are composed of familiar political actors even if their party label has changed. However, the criteria by which new parties are identified can lead to vastly differing estimates of volatility. Contrary to Sikk, Powell and Tucker found that volatility caused by vote switching between current participants of CEE party systems accounts for just 30 per cent of overall volatility.74 Similarly, Tavits showed that the level of electoral support gained by new parties is related to voters’ disappointment with the alternatives which suggests that voter volatility is responsible for the success of new parties.75

As new parties still need to compete with established contenders in the government formation process it is a stretch too far to claim that new parties possess a significant advantage over others during coalition negotiations. A less stringent test is to hypothesize that new parties will not be locked out of coalition formation as they may be in established democracies, where familiar parties collude to exclude new parties from office.76 I therefore test the proposition that coalitions containing new parties will not be significantly less likely to take office in new democracies.

Tavits has also demonstrated that new parties were 2.3 times more likely to win seats after the third election in a given country.77 This highlights an interesting dynamic of party systems in CEE, which seemingly stabilized into familiar patterns of competition between centre-right and social democratic parties in the late 1990s. This period, referred to as the
‘third generation elections’\textsuperscript{78}, also witnessed a deepening of voter disillusionment as both mainstream ideological camps had, by then, experienced disappointing periods in government. As a result, voters turned away from mainstream parties and looked towards anti-political or unorthodox alternatives. Pop-Eleches shows empirically that the electoral success of new parties is significantly greater during this period.\textsuperscript{79} The demonstrable electoral success of new parties in the late-democratic period leads to the expectation that new parties will be more likely to enter government during this period.

**Empirical design**

Assessing government formation requires an empirical design that determines why one coalition formed out of the numerous potential alternatives that exist in any given formation opportunity. Martin and Stevenson first solved this problem by using a conditional logit (CL) model.\textsuperscript{80} Since then, a number of further studies have been published using their model and data but none have examined government formation in new democracies.\textsuperscript{81} This article therefore represents the first examination of government formation in new democracies that uses the formation opportunity as the unit of analysis and is comparable to the leading research on established democracies.

The empirical method used in this research differs from that specified by Martin and Stevenson. The limitations of the CL model have recently been discussed by Glasgow et al. who suggest the use of a mixed effects logit (MXL) model as an alternative.\textsuperscript{82} They argue that an MXL model solves the problem of unobserved heterogeneity that can exist when contextual factors vary across formation opportunities. Furthermore, the independence of irrelevant alternatives (IIA) assumption upon which the CL model rests can be relaxed in an
MXL model. This is crucial in the context of the present research as every model discussed in the results section exhibited at least one IIA violation when using the CL estimator.

The MXL model can contain both fixed and random coefficients and therefore, variables can vary across formation opportunities. This allows researchers to investigate contextual factors, for example, to assess whether party ideology matters more in some circumstances than others. The effect of random coefficients in each formation opportunity can be determined by adjusting the standard CL model by adding the constant $n_t$ to the vector of coefficients $\beta$, where $t$ is the formation opportunity and $x_{tj}$ is a vector of independent variables associated with government $j$ in opportunity $t$. $n_t$ is not observed so researchers must specify a distribution for the coefficients and estimate the parameters of the distribution. Glasgow et al. specify a joint probability distribution $f(n|\theta)$ for $n$ which I follow in this article, where $\theta$ are the fixed parameters of distribution $f$. Doing so, and integrating the augmented CL model over the distribution of $n$ as weighted by $f$ which is the density function of $n$, gives the unconditional probability that government $i$ is selected from $j$ alternatives at formation opportunity $t$. This gives us the MXL model in which:

$$P_{ti} = \int \left( \frac{\exp(x_{ti}\beta + x_{ti}n_t)}{\sum_{j=1}^{J} \exp(x_{tj}\beta + x_{tj}n_t)} \right) f(n|\theta) \, dn$$

MXL models do not have a closed-form solution and must therefore be estimated by maximum simulated likelihood. Similar to Glasgow et al. in each of the models reported in this research the log-likelihood is simulated from the results of 200 Halton draws. The Lagrange multiplier test as recommended by Glasgow et al. was used to determine which variables should be entered into the models as random effects. All variables that enter the
models as random coefficients are identified in the tables by the presence of an accompanying standard deviation statistic. As each model contains slight variations in the variables and cases entered, the designation of fixed and random variables can change between models.\textsuperscript{90}

**Data and measures**

I examine government formation in new democracies using a new dataset of potential governments in 10 CEE countries between 1990 and 2011: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. All ten countries emerged from authoritarian rule between 1989 and 1991 and are comparable in terms of their level of political development. All were also part of the 2004-07 wave of European Union expansion. They are all parliamentary or semi-presidential democracies in which the executive is reliant on the confidence of the legislature for its survival. Thus, their institutional arrangements are broadly comparable to those of West European democracies used in other leading studies of government formation.\textsuperscript{91} However, the results are theoretically generalizable to new presidential democracies as the office- and policy-seeking motivations for coalition formation remain similar to those in parliamentary democracies.\textsuperscript{92}

The unit of analysis in this research is the formation opportunity which arises if: there is a change in the party composition of the government; a parliamentary election is held; the prime minister resigns for political reasons; or the cabinet resigns for any reason including the loss of a vote of no confidence.\textsuperscript{93} Using these criteria, 117 formation opportunities are identified amounting to 27,507 potential governments. The dependent variable is whether or not a potential government went on to form the cabinet which is coded ‘1’ for the coalition
that eventually took office and ‘0’ for all other potential governments in a given formation opportunity. Caretaker and technocratic cabinets are excluded as they are usually formed outside the parameters of normal competitive party politics. Instances of single party majority government are dropped from the dataset as coalition formation theories do not apply in these cases. Some of the models in the results section contain fewer cases due to lack of data; for example, data on party ideology is not always available. The final dataset covering only coalition governments with complete data contains 95 formation opportunities and 16,393 potential cabinets. In some models the first governments in each country are excluded from the data as certain variables require information from a prior period of government. As no democratically-elected government preceded the first cabinets, the effect of such variables cannot be assessed for those cases.

Four independent variables related to party system institutionalization are specified. Two variables are used to assess incumbency disadvantage. The first is an indicator which takes a value of ‘1’ if a potential coalition contains the party of the incumbent prime minister and ‘0’ if not. As governments across the democratic world are heavily identified with the prime minister\(^{94}\), it is likely that voters will attribute policy failure primarily to the prime minister’s party. Second, I include a measure of the familiarity of the coalition that takes office compared to the previous coalition to assess whether the overall government suffers the same disadvantage as the prime minister’s party. This measure, labelled similarity in the tables, is given as:

\[
F = \sqrt{\frac{\sum_{jk} S_{jk}}{\sum_{ik}}} S_k
\] (2)
where \( j \) is the number of parties in the outgoing government that are included in potential coalition \( k \), \( i \) is the number of parties in the potential coalition and \( S \) is the fractional seat share of the potential coalition. This takes into account the number of incumbent parties that form the potential coalition weighted by the overall size of the government. In order to test whether the effect of incumbency changes depending on the timing of the formation opportunity I interact both measures of incumbency with an indicator of whether or not the formation opportunity takes place after an election.

The effect of a former dominant party on coalition formation is assessed using a binary indicator of their presence in, or absence from, a potential coalition. To test whether the effect of former dominant parties on government formation has changed over time I interact the dominant party variable with another variable that takes the value of ‘1’ if the election is a ‘third generation election’\(^95\) and ‘0’ for all other elections. The ‘third generation elections’ began from 1997 and 2002 in each country.\(^6\) Finally, to assess whether dominant parties in CEE are more likely to join oversized coalitions I use an indicator of whether or not a potential coalition holds a surplus majority.\(^7\)

To test the hypothesis that new parties will not be systematically excluded from coalition formation in new democracies I use a dichotomous indicator that takes the value of ‘1’ if a potential coalition contains a party that had not sat in any previous legislature and ‘0’ for all other potential coalitions. Although a party may have competed in previous elections, that party is relevant to the coalition formation game only when it succeeds in entering parliament. New parties were identified from a number of sources.\(^8\) Additional parties were added to the dataset using Tavits’ definition: “A new party is one that either results from a split from an existing party or is genuinely new in the sense that it emerges without any help
from members of existing parties.” To assess whether new parties have been more successful in the later years of the democratic period I interact the new party variable with the indicator of ‘third generation elections’ in CEE.

A number of control variables are included in the models which are derived from the empirical and theoretical literature on government formation in established democracies. First, following the work of Riker and von Neumann and Morgenstern indicators are included of a potential coalition’s minimal winning and minority status. Both theory and empirical research suggests that minimal winning governments will be more likely to form and minority governments will be less likely to take office as parties need to command a majority in parliament in order to retain its confidence but, by the same token, parties want to maximize the payoffs of office. Second, it is often assumed that the largest party in the legislature will be a centripetal actor in coalition negotiations that is difficult to exclude from the government. Potential coalitions containing the largest party should therefore be more likely to take office. Third, according to coalition theory, parties will try to maximize the individual payoffs of office by minimizing the number of actors with whom they need to be shared. We might, then, expect that parties will seek to form smaller coalitions so I include a count of the number of parties in each potential government.

Fourth, ideology is seen as central to policy-seeking accounts of government formation. Parties are usually expected to favor forming less ideologically diverse governments in order to minimize intra-coalition conflict, however, this assumes that party systems are institutionalized and parties compete on the basis of policy or ideology. Where party systems are not institutionalized then parties tend to have weak programmatic links with voters and less incentive to compete on the basis of policy or underlying cleavages, however, evidence
has shown that in Latin America presidents choose to form executive coalitions with ideologically proximate parties. In CEE, the former dominant parties further complicate coalition bargaining based on policy-seeking motivations as they are usually ideologically moderate parties that some other parties in the system refuse to countenance as coalition partners for historical reasons. Their presence has also seen ideological competition subjugated to contestation based on the regime divide. It is therefore difficult to accurately predict the effect of ideology on government formation in new democracies but there is reason to believe that it will not be as salient as it is in Western Europe. Ideological distance on the left-right scale is measured using the \( rile \) variable from the Manifesto Data Collection. I also include an indicator of the ideologically median party in each legislature based on coalition theory which suggests that the median actor occupies a strategically important position in the policy bargaining space and is therefore difficult to exclude from government.

Finally, I specify an indicator of whether a potential coalition is associated with a pre-electoral coalition. Some parties make it known prior to an election that they intend to work together in government and empirical evidence from established democracies shows that this is an important indicator of which government eventually takes office. However, in CEE it is not as straightforward to identify such pre-electoral coalitions. Party splits, mergers and alliances are frequent and it can also be difficult to strictly identify what is a formal alliance and what is a mere pre-electoral coalition. A pre-electoral coalition is defined as a joint candidate list or a publicly expressed commitment to coalesce by two or more parties. Any potential coalition that contains a pre-electoral coalition is coded as ‘1’ even if it runs under a single electoral banner and all other potential coalitions are coded ‘0’. This is less strict than Martin and Stevenson’s coding of pre-electoral coalitions but it allows me to assess
whether parties gain an advantage through participation in such an arrangement even if they also need to seek additional governing partners from outside of the pre-electoral coalition. To illustrate the coding of pre-electoral coalitions in this research; any potential government containing Solidarity Electoral Action (AWS) in Poland in 1997 would be coded ‘1’ as AWS was a pre-electoral coalition of more than thirty parties. Descriptive statistics and sources for all variables can be found in Appendix 1.

**Results**

Table 1 presents the results of three models of coalition formation in new democracies. The first model tests variables that are common in analyses of coalition formation in Western Europe. It can be seen that some of the established theories of government formation transfer well to new democracies. Minimal winning coalitions are more likely to take office and parties prefer to form smaller coalitions, as indicated by the no. of parties variable, which maximize the payoffs of office for all participants. The winning coalition is also likely to contain the largest party in the legislature which is commensurate with some of the extant literature on new democracies.

The ideological variables provide interesting results that contrast with research on Western Europe and new democracies in Latin America. Firstly, the ideological diversity of the potential coalition does not have a significant effect on government formation in CEE. Coalitions in Western Europe tend to have convergent policy preferences but in CEE the development of programmatic competition has been impeded by weak party system institutionalization. Furthermore, contestation that was structured by historical enmities between the former ruling party and the democratic opposition, combined with restrictions on
policy competition that the EU accession process enforced on political parties in CEE\textsuperscript{113}, meant that actors in the coalition formation process based their decisions on considerations other than policy and ideology. Secondly, coalitions containing the median party are significantly more likely to take office in CEE. Although theory indicates that this should be the case\textsuperscript{114}, empirical evidence from Western Europe is mixed.\textsuperscript{115} One potential explanation for this finding is that party alliances are less entrenched in CEE than in Western Europe, and indeed, as party systems in CEE have been so unstable, the median party in one legislature may not return to parliament following the next election. When this is the case, then the median party will have a greater freedom to negotiate and form coalitions with a wider range of parties than it would if it was part of a familiar bloc as is common in Western Europe. Once parties are established in a familiar bloc it becomes more difficult to defect from that bloc and retain credibility as a prospective governing partner.\textsuperscript{116} In CEE, a median party retains its strategically advantageous position in the bargaining space but is unencumbered by entrenched cross-party loyalties.

\textbf{[TABLE 1 ABOUT HERE]}

The variables derived from existing scholarship provide some valuable explanations of coalition formation in CEE but also point to some important differences which indicates that the distinctive context of new democracies is a factor in coalition formation. The final two models in Table 1 explore the effect of the variables relating to the institutionalization of party systems. The second model contains the indicators of dominant parties and incumbency and the new party variable is added in model three. The dominant party variable is negative and significant in both models two and three indicating that coalitions containing a CSP are much less likely to take office than other potential governments. This result may be superficially surprising given that former dominant parties in Bulgaria, Hungary, Lithuania,
and Poland all formed governments within the first few years of the transition to democracy though this only laid the foundations for their future failure as discussed in the next section.

Model 2 demonstrates that former dominant parties can alter the dynamics of coalition formation. CSPs, with one or two exceptions, are located at the moderate left of the ideological spectrum. However, their historical roots make these parties pariahs for some other parties in the coalition bargaining arena. This rules out some potential coalitions \textit{a priori} and can lead to distortions in government formation if parties refuse to cooperate with CSPs and seek to form coalitions with ideologically distant parties that are not tainted by the associations attached to former dominant parties. For example, in 1997 the Freedom Union (UW) in Poland formed a government with AWS. The ideological distance between these parties, according to the Manifesto Project’s right-left scale was 19.01 points. The former dominant party, the SLD, provided a more ideologically compatible partner for the UW lying just 1.71 points apart on the left-right scale. However, the UW’s roots in the democratic opposition movement precluded cooperation with the former ruling party. Of equal importance, the presence of CSPs undermines the development of party competition based on substantive policy issues as the regime divide structures contestation, at least in the first decade or so after democratization.

The effect of former dominant parties on coalition formation across the region is shown in Figure 1. In every country potential coalitions containing a former dominant party have a lower probability of taking office. The impact of CSP presence in a coalition is particularly stark in Poland and the Czech Republic where democratic opposition movements had a better organizational form that naturally morphed into political parties that were antagonistic towards the former dominant party in the post-communist period.
The Polish CSP, the SLD, never managed to shake off its associations with the prior regime and struggled to build alliances with other parties in the system besides the Peasant Party (PSL) which was a satellite of the former ruling Communist Party. The Czech CSP, the KSČM, has suffered from its adherence to a far left ideology for much of the democratic period. This left the KSČM outside mainstream party politics even though it accrued more than 10 percent of the vote in every election since 1992 and has been represented in every legislature from that date. Other CSPs in the region have, periodically, managed to build alliances with other parties in the system; for example, the Social Democrats in Slovenia have formed coalition governments with the mainstream Liberal Democrats. The Slovenian successor party’s relative success is rooted in the pre-democratic era. The last League of Communists of Slovenia (LCS) government was not seen as unpopular or corrupt as many Communist governments were in the region. Reformist elements within the LCS were instrumental in the transition to democracy having gained predominance over the conservatives within the party in the mid-1980s. Furthermore, the LCS gained credibility from its opposition to the Yugoslav Communist Party which sought to tighten Belgrade’s control over the Yugoslav federal state. This lent the Slovene transition from authoritarian rule a distinct national separatist character rather than one of Communists against democratic reformers. As such, the ‘regime divide’ was not as salient in Slovenia in the post-transition period.

Figure 1 also shows that coalitions containing the former dominant party in Romania are almost as likely to take office as any other potential government. Grzymała-Busse argues that the successor party’s domination of the transition process in Romania meant that it could oversee the creation of formal and informal institutions to the disadvantage of opposition
parties. The creation of a strong presidency, state funding only for parties that gained 5 percent of the vote, and the use of state media to marginalize opposition all favored the former dominant party and limited the development of strong alternatives.\textsuperscript{120} This allowed the Romanian successor party to dominate until 1996 and since then it has remained one of the two leading parties in parliament.

Based on previous literature it was expected that the role of incumbency in new democracies would be dynamic; in post-election bargaining situations incumbency should be a disadvantage but in mid-term formation opportunities incumbents benefit from an incoherent opposition that results from weakly institutionalized party systems. The results in models two and three indicate that overall, incumbency is actually an advantage. Coalitions containing the \textit{party of the incumbent prime minister} are not significantly less likely to take office while coalitions that more closely resemble the incumbent cabinet, as indicated by the \textit{similarity} variable, are more likely to form the government.

The coefficient and standard deviation of the similarity variable in model three indicate that there is heterogeneity between formation opportunities. Coalitions that more closely resemble the incumbents are advantaged 71 percent of the time but disadvantaged in 29 percent of formation opportunities.\textsuperscript{121} Existing literature suggests that this result should not be surprising but research also demonstrates that governing parties tend to fair poorly in subsequent elections as voters punish them for poor performance.\textsuperscript{122}

How then, can this result be interpreted? One answer is that the instability of governments in CEE has an effect in tandem with the inchoate pattern of party interactions. It is well-
documented that CEE governments have a greater tendency to collapse mid-term than West European cabinets. This technically results in a new formation opportunity but often members of the previous government return to office albeit in a slightly reconfigured formula. For example, the four-party coalition led by Mikuáš Dzurinda in Slovakia from 2002 broke down in 2005 and was subsequently returned to office as a three-party minority administration as no viable alternative government could be formed by the parliamentary opposition. It is therefore likely that the effect of incumbency differs for governments formed after an election compared to those formed mid-term. This will be explored in the next section.

Model three also shows that potential coalitions that contain a new party are less likely to take office but the coefficient is insignificant. The fact that new parties have no significant effect on the composition of the government is important given the common characterization of the CEE party landscape as one in which short-term success is relatively easy to attain. However, it also indicates that established parties have not managed to close off access to government for new parties as one may expect in a fully institutionalized party system.

Overall, the variables relating to weak party system institutionalization improve our understanding of coalition formation in new democracies. Figure 2 shows the average gain or loss in predicted probability that is achieved when these variables are included in the model compared to the predicted probability of coalition formation obtained from a model containing only variables from established research (model one from Table 1). In every country except Romania the variables related to party system institutionalization improve the predicted probability of the coalition that eventually took office with the effect greatest in Poland and the Czech Republic. These results demonstrate that existing models only take us
so far in understanding government formation in new democracies. To gain a more complete explanation, it is necessary to consider the factors that set new democracies apart from established democracies.

[FIGURE 2 ABOUT HERE]

**Interaction models**

To further explore the effect of party system institutionalization on coalition formation I specified a number of models including interaction terms to examine conditional effects. It was hypothesized that coalitions containing former dominant parties would be less likely to take office following the onset of the ‘third generation elections’ in CEE. The results of model four in Table 2 provide support for this hypothesis. This result informs us of both the development of party competition and government formation in CEE. It had been expected that over time, generational replacement among politicians and the electorate would erode the negative connotations that accompanied CSPs and these parties would become ‘normal’ players in democratic politics. In that case, coalitions containing the former dominant parties would be no less likely to take office than coalitions containing any other party. Instead, CSPs have seemingly been punished more severely as time has worn on for their failure to fulfil policy expectations and engagement in exploitative or clientelist practices when in government. Previous research had also indicated that CSPs would be more likely to form oversized coalitions as governing partners sought to insulate themselves against any reputational damage that ensued from allying with a CSP. Although model five does indicate that CSPs have been more likely to form oversized coalitions, this finding is not significant and the hypothesis is therefore rejected.
Incumbency also has a conditional effect. Models six and seven show that incumbency is a disadvantage for any government that forms post-election. These results reinforce previous findings on electoral outcomes which found that incumbent parties are routinely punished at the polls by voters for failure to fulfil policy goals or their participation (perceived or real) in corrupt activities. The Hungarian Socialist Party saw its vote share drop from 43 per cent in 2006 to 19 per cent in 2010 following the leak of Prime Minister Ferenc Gyurcsány’s confidential speech to his party in which he stated that the government had achieved nothing and had lied to voters for two years. The SLD in Poland lost 30 per cent of its vote share from 2001 to 2005 partially due to Leszek Miller’s incompetent leadership of the government but primarily due to corruption allegations. The latter stem from the ‘Rywingate’ affair in which a film producer, Lew Rywin, claiming to represent ‘a group holding power’ attempted to extract a bribe from a newspaper publisher in order to influence the content of a media bill that was due to go before parliament. The government’s collusion was not proven but the SLD was severely damaged by the affair. In both Hungary and Poland the incumbents did not return to power.

Both measures of incumbency used in this research have a significant negative effect on coalition formation once the timing of the formation opportunity is taken into account. Potential coalitions containing the party of the prime minister and coalitions that more closely resemble the incumbent governments are much less likely to take office following an election. The effect of incumbency can be seen in Figure 3 which illustrates the probability of a coalition taking office based on its similarity to the incumbent government and the timing of the formation opportunity. The left panel shows that coalitions that more closely resemble
the incumbent have a greater likelihood of taking office when the formation opportunity occurs mid-term. That there are relatively few observations at the zero point in this panel demonstrates that wholesale alternation of government, in which all incumbents are replaced by different parties, rarely takes place during a parliamentary term. By contrast, the greater number of potential coalitions at the zero point in the right panel demonstrates the high level of volatility of incumbent party bargaining power in CEE.

I also argued that it was typical for incumbents to get back into government as a minority administration when the coalition terminates mid-term. Model eight contains an interaction term for minority coalitions and the timing of the formation opportunity. This variable shows that minority administrations are significantly less likely to take office when the government is formed after an election but not when the formation opportunity arises mid-term. The fact that minority administrations are not especially disadvantaged during mid-term coalition formation opportunities supports the proposition that incumbents often return to office as minority governments when the previous administration terminates prematurely. Taken together, these findings provide support for my hypotheses on the role of incumbency in government formation in new democracies. High electoral volatility stemming from weak institutionalization results in an incumbency disadvantage when bargaining takes place post-election but the unstructured pattern of party interactions means that opposition parties are unable to act in a coherent manner to unseat incumbent governments when the formation opportunity takes place during a parliamentary term.

[FIGURE 3 ABOUT HERE]
Finally, prior research has found that new parties had become more successful in the electoral arena in the later years of the democratic period in CEE and if so, then we might expect new parties to have a greater probability of participating in government. Model nine indicates that potential coalitions containing new parties have been more likely to get into government following the onset of the ‘third generation elections’ but this effect is not statistically significant. Together with the results from Table 1, this undermines the notion that weakly institutionalized party systems are particularly fertile ground for political entrepreneurs trying to gain access to government. The challenge facing new parties appears to be invariant over time even though the political space in many countries has opened up with a greater share of votes going to protest or anti-political parties.

Conclusion

In this study, I have addressed the influence of weak party system institutionalization on government formation in new democracies. This is crucial as the institutionalization of the party system is considered to be a key distinction between new and established democracies. This is also the first systematic examination of government formation in new democracies that uses a comparable research design to the leading studies on established democracies.

From this, three conclusions are worth highlighting that improve our understanding of government formation in general, and in new democracies in particular. First, incumbency has a conditional effect in new democracies. When the government formation opportunity takes place following an election incumbents are significantly disadvantaged. This is a result of the tendency for governing parties to suffer large losses in electoral support following a period in office due to failure to fulfil key policy objectives and, in many instances, their
engagement in clientalistic or corrupt practices. The lack of a stable core of electoral support may actually encourage governing parties to engage in clientalistic practices since voters are less likely to be swayed by partisan or programmatic appeals. On the other hand, when the formation opportunity arises following the mid-term collapse of a government wholesale alternation of the cabinet is rare and incumbent parties are more likely to remain in office. The weakness of party system institutionalization means that the parliamentary opposition struggles to act coherently in order to offer a viable governing alternative. Therefore, the incumbent administration can persist even if it falls into minority status.

Second, former dominant parties play a significant role in coalition formation. In states where opposition political parties were not tolerated under the authoritarian regime a lack of affinity with parties in general, and the successor to the former ruling party in particular, became manifest following the onset of democracy. Furthermore, where former dominant parties remained strong contenders in democratic politics, party system institutionalization was undermined by the stunted development of programmatic competition. Instead, competition became structured by a regime divide between the former ruling parties and their now-fragmented opposition. The net effect of this has been to place former dominant parties at a systematic disadvantage in the government formation process in CEE as they struggled to interact with other parties based on programmatic congruence. This has been compounded over time as the former dominant parties also suffered from the vagaries of incumbency. As a result, former dominant parties are even less likely to take office as democracy progresses.

Finally, this study demonstrates that new parties have little impact on the government formation process. Given the weak institutionalization of party systems in new democracies one could expect that new parties would find it relatively easy to achieve rapid success.
However, the results of this research show that potential coalitions containing new parties are less likely to take office and that this effect has not changed over time, despite the greater proclivity of CEE electorates to vote against more established parties. Furthermore, both results are statistically insignificant.

Overall, these results provide support for the argument that party system institutionalization influences government formation. Crucially, the weakness of party system institutionalization which results in the instability of relevant political parties in new democracies means that some variables produce different explanations of government formation in these countries compared to established democracies. Furthermore, distinct variables that relate specifically to weak party system institutionalization also need to be considered when examining government formation in new democracies. The evidence presented in this paper suggests that analyses of government formation can be improved by a consideration of the stability and routinization of institutions and political practices.

1 See e.g. Druckman 2007; Glasgow, Golder, and Golder 2011; Glasgow, Golder, and Golder 2012; Laver and Schofield 1990; Laver and Shepsle 1996; Martin and Stevenson 2001; Martin and Stevenson 2010; Volden and Carrubba 2004.
2 Mainwaring and Scully 1995; Mainwaring and Zoco 2007.
3 Martin and Stevenson 2010.
4 Roberts 2008.
6 Tavits 2007b.
7 All data and code needed to replicate the results of this paper will be made available from the following website upon publication: https://leemsavage.wordpress.com/publications/
8 Alemán and Tsebelis 2011; Altman 2000; Döring and Hellström 2013; Druckman and Roberts 2007.
9 Amorim Neto 2006; Cheibub, Przeworski, and Saiegh 2004
11 Glasgow, Golder, and Golder 2012; Martin and Stevenson 2001
13 For a comprehensive test of hypotheses derived from the theoretical literature see Martin and Stevenson 2001.
Kitschelt 2000, p 853.
Klašnja 2015a; Klašnja 2015b.
Millard 2009, p 119-121.
Hicken and Martinez Kuhonta 2011.
Hicken and Martinez Kuhonta 2011.
K. M. Roberts and Wibbels 1999.
Wong 2008.
Pop-Eleches 2010.
I thank a reviewer for World Politics for a comment that helped to shape this hypothesis.
Druckman and Roberts 2007, p 11.
Tavits 2007b.
Tavits 2007b.
Sikk 2005.
E. N. Powell and Tucker 2013.
Sikk’s criteria for identifying new and continuation parties is arguably stricter than Powell and Tucker’s though the latter’s are more extensive. Powell and Tucker 2013, pp 5-8; Sikk 2005, p 399.
Tavits 2007b.
Katz and Mair 1995.
Tavits 2007b.
Pop-Eleches 2010.
Pop-Eleches 2010.
Martin and Stevenson 2010; Bäck and Dumont 2008; Druckman, Martin, and Thies 2005; Indridason 2011.
Glasgow, Golder, and Golder 2012.
Glasgow, Golder, and Golder 2012.
Martin and Stevenson’s modified Hausman-McFadden test was used to assess this. The average p-value of the Hausman-McFadden tests for the models in this research was above 0.90 which is generally taken as an indicator that the IIA assumption was not violated. However, as Glasgow et al. (2012, p 252) remark, “[i]f any one [Hausman-McFadden] test is significant, then this indicates that removing that choice alternative or set of choice alternatives has produced evidence of an IIA violation.” Martin and Stevenson, along with Chiba, have subsequently responded to this point though they do also acknowledge the benefits of the mixed effects logit model (Chiba, Martin, and Stevenson 2015), see the supplementary material of their paper, available here: http://pan.oxfordjournals.org/content/suppl/2014/08/20/mpu013.DC1/SM_iia.pdf
Train 2003, p 141.
Glasgow, Golder, and Golder 2012; Train 2003.
For a complete description of the MXL model see Train (2003, Chapter 6). For a more extensive discussion of the MXL model’s application to government formation see Glasgow et al. 2012.

Glasgow et. al (2012) suggest that MXL models should be repeated with different numbers of Halton draws to verify that simulation error is not affecting the results. Each model was initially estimated using 50 Halton draws and repeated in increments of 25. The results of all models remained similar regardless of the number of draws used.

All analyses were carried out using the mixlogit package in Stata. Hole 2007.

Lijphart 1984, p 267.


Pop-Eleches 2010.

For a complete list of ‘third generation elections’ for each country see Pop-Eleches (2010, p 234). Further elections were added to this list using the criteria set out by Pop-Eleches.

Druckman and Roberts 2007.


Tavits 2007, p 122.

Tavits 2007b; Pop-Eleches 2010.

von Neumann and Morgenstern 1953; Riker 1962.


E.g. Martin and Stevenson 2001; Martin and Stevenson 2010

Cheibub, Przeworski, and Saiegh 2004; Foweraker 1998

Lijphart 1984, p 267.


Pop-Eleches 2010.

For a complete list of ‘third generation elections’ for each country see Pop-Eleches (2010, p 234). Further elections were added to this list using the criteria set out by Pop-Eleches.

Druckman and Roberts 2007.


Tavits 2007, p 122.

Tavits 2007b; Pop-Eleches 2010.

von Neumann and Morgenstern 1953; Riker 1962.


E.g. Martin and Stevenson 2001; Martin and Stevenson 2010

Cheibub, Przeworski, and Saiegh 2004; Foweraker 1998

Lijphart 1984, p 267.

As a test of robustness all models were also estimated using conditional logistic regression. The results are substantively the same with minor variations. However, all of these models failed at least one IIA test and according to Glasgow et al. this is enough to question the appropriateness of the CL model. The results are available in the supplementary material accompanying this article.

Döring and Hellström 2013.

Martin and Stevenson 2001; Martin and Stevenson 2010.

Innes 2002.

Laver and Schofield 1990.

Innes 2002.

Laver and Schofield 1990.

Martin and Stevenson 2001; Martin and Stevenson 2010.

Tavits 2008.

Bebler 2002.

Jou 2011.

Jou 2011.


This figure is obtained by dividing the coefficient by its standard deviation and multiplying the result by the cumulative normal distribution.

Roberts 2008.

Somer-Topcu and Williams 2008.
Period effects cannot be directly included in MXL or CL models as there is no within-group variation. This also means that in some models in Table 2, not all of the constitutive elements of the interaction terms can be included (Brambor, Clark, and Golder 2005). For instance, the variable that indicates whether a formation opportunity took place after an election is not included in models seven and eight. Standard practice in these cases has been to specify the model excluding the invariant term (Bäck, Debus, and Dumont 2011; Indridason 2011; Martin and Stevenson 2001). Interaction terms are entered into each model as fixed effects.

Druckman and Roberts 2007.
Roberts 2008.
Millard 2009, p 119.
Tavits 2007b.
Pop-Eleches 2010.
### Tables and figures

Table 1. Mixed effects logit models of the determinants of coalition formation in new democracies

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal winning coalition</td>
<td>1.062 ***</td>
<td>1.041 ***</td>
<td>1.060 ***</td>
</tr>
<tr>
<td></td>
<td>(0.344)</td>
<td>(0.384)</td>
<td>(0.387)</td>
</tr>
<tr>
<td>Minority government</td>
<td>-1.726 8.745</td>
<td>0.062 0.048</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.990)</td>
<td>(0.520)</td>
<td>(0.530)</td>
</tr>
<tr>
<td>Largest party</td>
<td>1.774 ***</td>
<td>0.048</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.304)</td>
<td>(5.14)</td>
<td>(4.968)</td>
</tr>
<tr>
<td>No. Of parties</td>
<td>-0.873 ***</td>
<td>-0.745 ***</td>
<td>-0.676 ***</td>
</tr>
<tr>
<td></td>
<td>(0.185)</td>
<td>(0.216)</td>
<td>(0.247)</td>
</tr>
<tr>
<td>Pre-electoral coalition present</td>
<td>0.134 (0.297)</td>
<td>0.321 (0.379)</td>
<td>0.263 (0.381)</td>
</tr>
<tr>
<td>Median party</td>
<td>0.618 **</td>
<td>0.662 *</td>
<td>0.658 * -0.113</td>
</tr>
<tr>
<td></td>
<td>(0.262)</td>
<td>(0.345)</td>
<td>(0.347)</td>
</tr>
<tr>
<td>Ideological diversity</td>
<td>-0.009 0.000</td>
<td>-0.005 0.011</td>
<td>-0.005 0.001</td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td>(0.013)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>Ex-dominant party present</td>
<td>-1.564 ***</td>
<td>-1.586 ***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.423)</td>
<td>(0.428)</td>
<td></td>
</tr>
<tr>
<td>Party of incumbent PM</td>
<td>-0.690 (0.554)</td>
<td>-0.753 (0.551)</td>
<td></td>
</tr>
<tr>
<td>Similarity</td>
<td>1.434 *** 2.535</td>
<td>1.395 *** 2.492</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.444)</td>
<td>(0.446)</td>
<td></td>
</tr>
<tr>
<td>New party</td>
<td></td>
<td>-0.540 (0.394)</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>16,393 15,439</td>
<td>15,439 15,439</td>
<td></td>
</tr>
<tr>
<td>Formation opportunities</td>
<td>95 89</td>
<td>89 89</td>
<td></td>
</tr>
<tr>
<td>Log-likelihood</td>
<td>-336.408 -296.361</td>
<td>-295.561</td>
<td></td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p<.01
Table 2. Mixed effects logit models of interaction effects and coalition formation in new democracies

<table>
<thead>
<tr>
<th>Interaction</th>
<th>Model</th>
<th>Coeff (S.E.)</th>
<th>Sig.</th>
<th>Observations</th>
<th>Formation opportunities</th>
<th>Log-likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex-dominant party X Third generation election</td>
<td>Model 4</td>
<td>-1.289 (0.637)</td>
<td>**</td>
<td>15,439</td>
<td>89</td>
<td>-296.328</td>
</tr>
<tr>
<td>Ex-dominant party X Oversized coalition</td>
<td>Model 5</td>
<td>-0.401 (0.597)</td>
<td></td>
<td>15,439</td>
<td>89</td>
<td>-298.132</td>
</tr>
<tr>
<td>Party of incumbent PM X Post-election formation</td>
<td>Model 6</td>
<td>-2.443 (0.736)</td>
<td>***</td>
<td>15,439</td>
<td>89</td>
<td>-293.138</td>
</tr>
<tr>
<td>Similarity X Post-election formation</td>
<td>Model 7</td>
<td>-3.367 (0.525)</td>
<td>***</td>
<td>15,439</td>
<td>89</td>
<td>-272.152</td>
</tr>
<tr>
<td>Minority government X Post-election formation</td>
<td>Model 8</td>
<td>-2.929 (0.662)</td>
<td>***</td>
<td>15,439</td>
<td>89</td>
<td>-285.398</td>
</tr>
<tr>
<td>New party X Third generation election</td>
<td>Model 9</td>
<td>0.409 (0.845)</td>
<td></td>
<td>15,439</td>
<td>89</td>
<td>-282.293</td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p<.01

Note: All models also contain the variables from Model 3 of Table 1. For purposes of clarity only the results of the interaction effects are reported in Table 2. The full table is available on request. The minority government variable is replaced in Model 5 by an indicator of whether the coalition was an oversized government.
Figures

Figure 1. The presence of former dominant parties and the predicted probability of coalition formation
Figure 2. Average change in predicted probability of coalition formation before and after inclusion of party system institutionalization variables.
Figure 3. Impact of incumbency on coalition formation by the timing of the formation opportunity
Appendix

Table A1. Descriptive statistics of variables in the analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal winning coalition</td>
<td>16,393</td>
<td>0.09</td>
<td>0.28</td>
<td>0</td>
<td>1</td>
<td>Author’s calculations based on data from European Representative Democracy Data Archive (Andersson, Bergman, and Ersson 2014), European Journal of Political Research annual yearbooks, and Conrad and Golder’s (2010) dataset on government duration in CEE</td>
</tr>
<tr>
<td>Minority government</td>
<td>16,393</td>
<td>0.51</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>Ibenskas (2015), Chiru (2014), and author’s calculations</td>
</tr>
<tr>
<td>Largest party</td>
<td>16,393</td>
<td>0.50</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>Volkens et al. (2013)</td>
</tr>
<tr>
<td>No. of parties in government</td>
<td>16,393</td>
<td>4.51</td>
<td>1.82</td>
<td>1</td>
<td>11</td>
<td>Tzelgov (2011)</td>
</tr>
<tr>
<td>Pre-electoral coalition present</td>
<td>16,393</td>
<td>0.66</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
<td>Author’s calculations</td>
</tr>
<tr>
<td>Median party</td>
<td>16,393</td>
<td>0.50</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>Volkens et al. (2013)</td>
</tr>
<tr>
<td>Ideological diversity</td>
<td>16,393</td>
<td>39.67</td>
<td>22.37</td>
<td>0</td>
<td>97.86</td>
<td>Volkens et al. (2013)</td>
</tr>
<tr>
<td>Dominant party present</td>
<td>16,393</td>
<td>0.45</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>Tzelgov (2011)</td>
</tr>
<tr>
<td>Party of incumbent PM</td>
<td>15,439</td>
<td>0.32</td>
<td>0.47</td>
<td>0</td>
<td>1</td>
<td>Author’s calculations</td>
</tr>
<tr>
<td>Similarity (standardized)</td>
<td>15,439</td>
<td>0.28</td>
<td>0.96</td>
<td>-1.27</td>
<td>2.45</td>
<td>Author’s calculations and Tavits (2007b), Sikk (2005), and Hanley and Sikk (2013)</td>
</tr>
<tr>
<td>New party present</td>
<td>15,439</td>
<td>0.64</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Note: Descriptive statistics are provided for the estimation sample
References


Hanley, Seán, and Allan Sikk. 2013. “Economy, Corruption or Promiscuous Voters?


Lupu, Noam. 2015. “Partisanship in Latin America.” In Ryan E. Carlin, M. Singer, Matthew,


