Cabinet Reshuffles and Parliamentary No-Confidence Motions

This paper is part of a special collection on comparative cabinet reshuffles.

How do cabinet reshuffles affect the parliamentary opposition's use of no-confidence motions in the government? Opposition parties employ no-confidence motions as electoral signals to highlight government incompetence, and to position themselves as a government in waiting. We argue that cabinet reshuffles - by which prime ministers respond to policy failures, scandals, poor ministerial performance, and disloyalty - present an opportunity for the opposition to deploy no-confidence motions to this end. The incentives to deploy this strategy, however, are contingent on the nature of the party system and are greatest where party system concentration positions a single opposition party as the alternative to the government and sole beneficiary of a no-confidence vote. We test this expectation using a multilevel modelling approach applied to data on reshuffles in 316 governments and sixteen parliamentary democracies, and find support for our expectation: Cabinet reshuffles raise the probability of no-confidence motions conditional on party system concentration.

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Premiers frequently reshuffle their cabinets to set new priorities, imprint their authority on the ministerial team, address scandals, misconduct, and incompetence, deflect blame, and signal their goals to voters. These cabinet reshuffles are significant political events and have been extensively studied (for recent reviews of the field see Bäck and Carroll 2020; Indriðason and Kam 2020). Existing work suggests that they have important consequences for relationships within the executive (e.g., Indriðason and Kam 2008; King and Allen 2010). Much less is known about the effect of cabinet reshuffles in the parliamentary arena on opposition party behaviour.

In this paper, we examine the impact of reshuffles on the relationship between the government and the legislature. In particular, we are interested in the impact of cabinet reshuffles on parliaments' use of no-confidence motions, that is motions which, if passed, remove the government from office. We focus on no-confidence motions (NCMs) because they are fundamental to the executive's responsibility to the legislature in parliamentary democracies, which makes them a defining feature of parliamentary government (Laver 2006). When a government is reshuffled, the ministerial team changes, and so does control of cabinet portfolios. Most often reshuffles are responses to policy and ministerial failures. This presents a strategic opportunity for the opposition to move a no-confidence motion. However, the effect of reshuffles on legislators' use of no-confidence motions remains poorly understood, in part, because the two literatures relevant to this question have not, to date, intersected.

Work on cabinet reshuffles regards a prime minister's (PM's) choice to alter their ministerial team as a response to two types of problems within the executive - agency problems by which ministers drift from the premier's preferred course of action (i.e., moral hazard), or

show themselves less competent than initially assumed (i.e., adverse selection) (Huber and Martínez-Gallardo 2008; Indriðason and Kam 2008). In addition, this literature notes that reshuffles may themselves generate problems within the executive by reducing the government's political control of bureaucrats (e.g., Huber 1998; Suleiman 1974) and enhancing the PM's personal authority over the cabinet relative to the governing party or parties (e.g., Allen and Ward 2009). In all these ways, reshuffles expose problems and tensions within the government.

The literature on no-confidence motions has not, to date, intersected with the work on government reshuffles. Traditionally, classical formal models of parliamentary government have regarded (no-)confidence motions as the central mechanism by which a parliamentary majority controls its government (Baron 1991). However, recent work notes that no-confidence motions are in practice most often initiated by opposition parties (rather than the governing majority) and employed as electoral signalling mechanisms to publicize the government's failings, rather than as a means to remove the government (Somer-Tocpu and Williams 2014; Williams 2011, 2016).

We merge these two literatures and argue that cabinet reshuffles present strategic opportunities for the parliamentary opposition to call the electorate's attention to faltering government performance and difficulties by initiating a no-confidence motion. Reshuffles may expose cabinet instability, disunity, incompetence and scandal. No-confidence motions are an electorally effective signalling mechanism for the opposition to dramatize the government's failings in a high-profile event that focuses voters' attention (Williams 2011). We also propose that the electoral payoffs from this strategy are conditioned by the parliamentary party system because the use of no-confidence motions for electoral signalling and to present the opposition as a government in waiting is not equally effective in all parliamentary contexts. It can be expected to be most effective when one opposition party is the main alternative to the government (i.e., a government in waiting) and therefore the key beneficiary of the manoeuvre, as is typically the case in a two-party system (Williams 2011). It is significantly less effective as an electoral signalling device when a fragmented party system casts uncertainty over the status of any one opposition party as a member of an alternative to the government.

To evaluate this argument empirically, we employ a multilevel modelling approach using data on reshuffles and no-confidence motions in 316 governments and sixteen parliamentary democracies over a forty-year period. Our results lend support to the expectation that cabinet reshuffles raise the probability of no-confidence motions conditional on party system concentration. This "government-in-waiting" finding sheds a first light on the

conditions under which opposition parties are most likely to exploit the difficulties that cause cabinet reshuffles for political advantage.

Cabinet reshuffles, government performance and no-confidence motions

Cabinet reshuffles are changes of ministerial personnel or responsibilities (portfolios) that a prime minister makes during the lifetime of a cabinet, that is, between parliamentary elections, while the prime minister and party composition of the cabinet remain unchanged (Budge 1985). This definition underscores that reshuffles are conceptually distinct from changes of the full government, which are, by definition, decisions made by parliamentary parties, and from more idiosyncratic changes of individual ministers, which more often occur for non-political reasons such as illness. Cabinet reshuffles are therefore best understood as politically motivated changes to the government team, made by the prime minister as a measure to address concerns about ministerial or policy performance. The literature on government reshuffles describes the political relationship between premiers and their teams, and the motivations for reshuffles, as follows.

A prime minister, as leader of the cabinet, typically delegates primary responsibility for policymaking in specific areas to individual ministers (Strøm 2000). This gives ministers considerable policy influence in their own jurisdiction (Alexiadou 2015, 2016; Bäck et al. 2022). As a result, potential agency problems may beset the relationship between prime ministers and their ministerial teams, including adverse selection and moral hazard (see Lupia 2003). Adverse selection arises from uncertainty about ministers' incentives and ability to execute party policy, which may result in the appointment of unsuitable ministers. Moral hazard stems from information asymmetries which may allow ministers to diverge from the wishes of their party, either through incompetence or because their political preferences are not well aligned with their party's.

Extant work shows that premiers respond to these agency problems by reshuffling their ministerial team. Indriðason and Kam (2008), for instance, demonstrate that premiers reshuffle their cabinet to limit moral hazard that arises when ministers support self-interested, departmental budget-maximization strategies to advance their own career as opposed to government policy. Premiers also use reshuffles to remedy adverse selection, i.e., to choose 'good' ministers and remove 'bad' ones who are insufficiently skilled or ideologically incompatible (Huber and Martínez-Gallardo 2008). For example, PMs employ resignation calls to distinguish between high- and low-performing ministers and decide which ministers to retain

or dismiss (Berlinski et al. 2010). Other studies also suggest that changes to the ministerial team can be responses to wider political tensions within the governing party or attempts to ward off electoral punishment. Kam et al. (2010), for instance, show that British ministerial appointments reflect the collective policy preferences of party backbenchers rather than those of party leaders. There is also evidence that reshuffles are attempts to deflect electoral punishment of the governing party, by pinning the blame for incompetence or scandals on individual ministers (Dewan and Dowding 2005). From this perspective, cabinet reshuffles are high-profile, politically motivated events that expose faltering government performance, tensions and agency problems in the relationship between the PM and ministers.

Other work shows that cabinet reshuffles can additionally generate political tensions and difficulties within the government. In reshuffling their cabinet, PMs often prioritize their personal interest, rather than the governing majority's (see e.g., Allen and Ward 2009; Bäck et al. 2012; Budge 1985; Fleming 2021; Hansen et al. 2013; Indriðason and Kam 2008). For example, Kam and Indriðason (2005: 329) suggest that prime ministers are more likely to conduct reshuffles when they themselves feel vulnerable to 'internal challenges and electoral defeat.' PMs also use reshuffles to imprint their personal authority on the cabinet when they promote ministers who are personally loyal to the PM rather than competent or representative of key factions within the governing majority (Rose 1971: 398). Moreover, agency problems may become more pronounced when PMs reshuffle their cabinets. Dismissing, replacing and rotating ministers may deplete the government's talent pool (Dewan and Myatt 2010) and squander the informational benefits of prolonged ministerial tenure, thereby reducing the government's administrative capacity to control departments (e.g., Huber 1998; Huber and Lupia 2001; Suleiman 1974). For these reasons, reshuffles may not only signal performance problems of the government, they may also create new difficulties for the executive.[1]

We merge this literature on government reshuffles with work on legislative confidence in the executive, and argue that reshuffles provide an opportunity for the opposition to move a no-confidence motion. Classical formal models of parliamentary democracy regard government dependence on parliamentary confidence as the central mechanism of legislative

[1] Note that we do not argue that all reshuffles signal equally damaging performance problems for the government. Some reshuffles are politically low-key, or garner positive publicity that even the most effective opposition rhetoric cannot counteract. However, on average, reshuffles address governance problems, which give opposition parties an opportunity to cast the government's performance in a negative light.

control over the executive (Baron 1991; Huber 1996). A more recent strand of this literature examines no-confidence motions specifically, and notes that these are not usually employed by the governing majority, but by the parliamentary opposition (Somer-Tocpu and Williams 2014; Williams 2011, 2016). No-confidence motions are parliamentary motions which – if passed – remove the incumbent government from office (see Lento and Hazan 2022).[2] But one striking observation of recent work is that most of these motions are unsuccessful. That is, they are moved and put to a vote on the floor of parliament, typically arresting all other parliamentary business while they are under consideration, but do not usually win parliamentary support. Their central purpose, therefore, is not to remove the government, but rather to influence 'the electorate's perception of the opposition party's ability to govern relative to the current government' (Williams 2011: 1480). According to this analysis, the primary objective of no-confidence motions is to publicize government failings and raise the opposition's visibility to the electorate.

From this perspective, the problems that trigger reshuffles, along with the difficulties that reshuffles themselves cause, constitute an opportunity for the opposition to dramatize the government's difficulties and failures. They may present evidence of instability, incompetence, and scandal within government, of a prime minister more focused on internal party politics than the conduct of the nation's business, and of divisions within the government, particularly if they prompt dissent from those who were sacked, demoted, or denied promotion (see Benedetto and Hix 2007). A no-confidence motion is a procedural mechanism for the opposition to turn these problems into a moment of political high drama, highlight the government's woes to the electorate, and depict itself as a more competent alternative to the government.

Anecdotally, there is evidence of this dynamic by which the opposition employs confidence motions for electoral signalling and to present itself as a government in waiting. For instance, in July 1962, British Prime Minister Harold Macmillan carried out a sweeping

[2] Under some constitutions it is possible for the legislature to express no-confidence in individual ministers. These motions, if adopted, however, do not terminate the government and are not the focus of our study. The literature also distinguishes between constructive no-confidence motions (which simultaneously depose a government and invest its successor), and ordinary votes of no-confidence (Lento and Hazan 2022; Rubabshi-Shitrit and Hasson 2022; Sieberer 2015)**.** Both types of motions can be used by the opposition for electoral signalling purposes and are therefore included in our study.

reshuffle of his cabinet, which was subsequently nicknamed the 'night of the long knives' (see King and Allen 2010). The Labour opposition responded by initiating a no-confidence motion. Introducing the motion, Labour leader Hugh Gaitskell described the reshuffle as 'the most convincing confession of failure which could have been offered by the Government, and the most complete vindication of the charges and criticisms put forward by the Opposition' (cited in Macmillan 1973: 102). He went on to depict the reshuffle as the 'act of a desperate man in a desperate situation … the steady, remorseless and steep decline of the Conservative Party's fortunes in by-election after by-election' (Macmillan 1973: 103). Although the motion was comfortably defeated (Macmillan 1973: 108), it was an effective instance of electoral signalling that enabled the opposition to highlight and publicise the government's problems, and position itself as the alternative.

Moreover, we propose that the extent to which opposition parties can benefit from electoral signalling through no-confidence motions is dependent on the political context, and specifically, the parliamentary party system. According to the literature on no-confidence motions, the benefits from employing this mechanism for electoral signalling purposes are larger when a single, main opposition party is clearly identified as the government in waiting, i.e., when the number of effective parliamentary parties is small (Williams 2011: 1494-95). Principal opposition parties in such settings are more likely to be seen – and to present themselves – as a clear governing alternative. This increases the probability that highlighting the government's failings will have a positive impact on voters' assessments of the opposition's electability. As Williams (2011: 1495) notes, "[t]hough opposition parties in these states experience very little immediate success [at passing no-confidence motions], their presence as the primary governing alternative means that they gain a long-term electoral benefit from challenging the government." By contrast, opposition parties in more complex party systems are less able to present themselves in this manner. Proposing no-confidence motions may allow these parties to damage the government's reputation, but does not enable them to position themselves as the natural beneficiaries of this manoeuvre (Williams 2011: 1495). No-confidence motions are therefore significantly less effective as an electoral signalling device when a fragmented party system casts uncertainty over the status of any one opposition party as a member of an alternative to the government. We apply this general argument about the electoral signalling value of no-confidence motions to the response to cabinet reshuffles by opposition parties, which can and cannot present themselves as governments in waiting. This yields the following hypothesis:

Government-in-waiting hypothesis: Cabinet reshuffles raise the probability of a no-confidence motion under conditions of high party system concentration, but not otherwise.

Data and Variables

We test our hypothesis with data on cabinet reshuffles and no-confidence motions in 16 parliamentary democracies over a forty-year period (from the 1960s, or democratization, to the end of the 1990s).[3] Specifically, we merge data from prior studies of ministerial turnover (Huber and Martínez-Gallardo 2008) and no-confidence motions (Williams 2016). The countries and time periods covered by our data are listed in Table 1 below. Jointly, our data display significant variation in the frequency of cabinet reshuffles and no-confidence motions over time, as well as the moderating variable of interest, party system concentration.

Our dataset takes the form of monthly observations for each country. The dependent variable (*no-confidence motion*) is an indicator that records whether a no-confidence motion was proposed during that month (1, otherwise 0; descriptive statistics for all variables and information on data sources is available in the Supplementary Information). We define a reshuffle as a change in ministerial personnel or responsibilities that affects *at least two officeholders and portfolios* within a one-month temporal window (see Indriðason and Kam 2008: 642).[4] We lag this indicator to ensure that we capture reshuffles which precede no-confidence motions, and to avoid the assumption that their effect is instantaneous. Specifically, our independent variable *reshuffle* indicates whether a reshuffle occurred during the preceding two months (1, otherwise 0). We calculate reshuffles based on Huber and Martínez-Gallardo's (2008) data on changes of individual ministers, after excluding all caretaker governments and

[3] We include Austria, Finland, France, Iceland, Ireland, and Portugal in our study, which are sometimes classified as semi-presidential rather than parliamentary systems (see Elgie 1999). For our purposes, the central feature of these political systems is that cabinet is responsible to parliament.

[4] This definition of reshuffles is distinct from the less restrictive concept of individual minister terminations (Huber and Martínez-Gallardo 2008) and a more restrictive definition of reshuffles as instances in which *more than two* officeholders and portfolios are affected (Kam and Indriðason 2005: 329). We refer to the latter as 'major reshuffles', and in additional analyses discussed below and included in the Supplementary Information, we examine the robustness of our findings to these more and less expansive definitions, respectively.

changes of prime minister. To distinguish between reshuffles and government change, we also exclude ministerial changes that occur as part of a change of government.

Table 1 provides an overview of our data and reports the frequencies of reshuffles and no-confidence motions for each country over the time period covered by the data. At the country level, two groups of cases stand out: those that feature high numbers of reshuffles and no-confidence motions (Australia, Canada, Finland, France, Ireland, Italy and the UK), and those in which reshuffles and no-confidence motions are rare (Belgium, Iceland, the Netherlands and New Zealand).

Table 1. Frequencies of reshuffles and NCMs

Country	Begin	End	Reshuffles	NCMs
Australia	1954	1999	16	24
Austria	1959	1999	8	5
Belgium	1961	1999	7	2
Canada	1962	1999	20	8
Denmark	1960	1999	10	4
Finland	1961	1999	13	22
France	1958	1999	14	18
Germany	1961	1999	9	4
Iceland	1959	1999	7	1
Ireland	1961	1999	11	15
Italy	1963	1999	8	12
Netherlands	1959	1999	3	0
New Zealand	1960	1999	4	3
Portugal	1975	1999	9	5
Spain	1977	1999	9	3
UK	1959	1999	23	14

According to our government-in-waiting hypothesis, we expect the effect of reshuffles on no-confidence motions to be moderated by party system concentration and employ two alternative operationalizations of this concept. The first is a measure of the *effective number of legislative parties (ENP)* (Laakso and Taagepera 1979). The second is an indicator of *single-party government* (1, otherwise 0). Both variables capture the same underlying theoretical construct: the probability that any particular opposition party is seen as part of a clear governing

alternative. We estimate alternative models using each measure of party system concentration along with its interaction with cabinet reshuffles, to capture the moderating effect. Note that ENP measures party system fragmentation, with larger values representing a *less* concentrated party system. We thus expect the interaction of reshuffles with ENP to be negatively signed, and that with single-party government to be positively signed.

Our analysis controls for other factors that have been shown by previous work to affect the frequency of no-confidence motions. Specifically, Williams (2016: 537-38) suggests that the probability of no-confidence motions increases during periods of *minority government,* due to the government's reduced parliamentary support, and with the *number of previous NCMs,* which proxy for the extent of formal and informal barriers to such proposals. Conversely, the probability of a no-confidence motion has been shown to decline when the government has been in office for longer (*government tenure*), which reflects the fact that the opposition frequently uses NCMs to test the viability of newly installed governments (Williams 2016: 538). Finally, no-confidence motions are less likely under conditions of good economic performance (*GDP growth*). Annual GDP growth proxies for government performance and popularity, which reduces the scope for the opposition to draw electoral benefit from moving a no-confidence vote.

Since our dependent variable is an indicator recording the occurrence (or otherwise) of a no-confidence motion in a given country-month, we analyse these data using a logistic regression model. Our data has a multi-level structure: Monthly observations are nested within governments, which are themselves nested within countries. To model this data structure appropriately, we employ mixed-effects models that include random effects (i) at the level of countries and (ii) at the level of both governments and countries.

Results

Table 2 presents the results of the logistic regression analyses. Recall that we expect the probability of no-confidence motions to rise in reshuffles (lagged), conditional on their interaction with party system concentration, which we operationalize with two alternative measures, a continuous measure of the *effective number of parliamentary parties (ENP),* and a dichotomous indicator for *single-party government*. Models 1 and 2 examine the interaction between reshuffles and ENP; models 3 and 4 that between reshuffles and single-party government. In each case, we stagger the complexity of the models. The first of each pair of

models (models 1 and 3) includes country-level random effects only, while the second model of each pair (models 2 and 4) includes government and country-level random effects.

The results of both sets of analyses are consistent with our government-in-waiting hypothesis: cabinet reshuffles are more likely to prompt no-confidence motions in settings where the principal opposition parties are more easily viewed as a clear governing alternative. Beginning with Models 1 and 2, recall that ENP measures party system fragmentation (rather than concentration). Hence, we expect the interaction term with reshuffles to be negative, indicating that party system fragmentation weakens the impact of cabinet reshuffles on opposition parties' incentives to propose no-confidence motions. This is exactly the pattern that we find – the coefficient of the interaction between reshuffles and ENP is negatively signed and statistically significant, while the coefficient for reshuffles is positively signed and statistically significant. Turning to Models 3 and 4, the results are similar. The coefficient of the interaction between reshuffles and single-party government is positively signed and statistically significant. In contrast, the coefficient of reshuffles is not statistically significant in either model, which suggests that reshuffles fail to raise the probability of no-confidence motions in the context of party systems that produce coalition governments. In each case, these results are robust to the inclusion of random effects at the country level (models 1 and 3), and at the government and country level (models 2 and 4).

Table 2. Determinants of NCMs (Mixed-Effects Logistic Models)

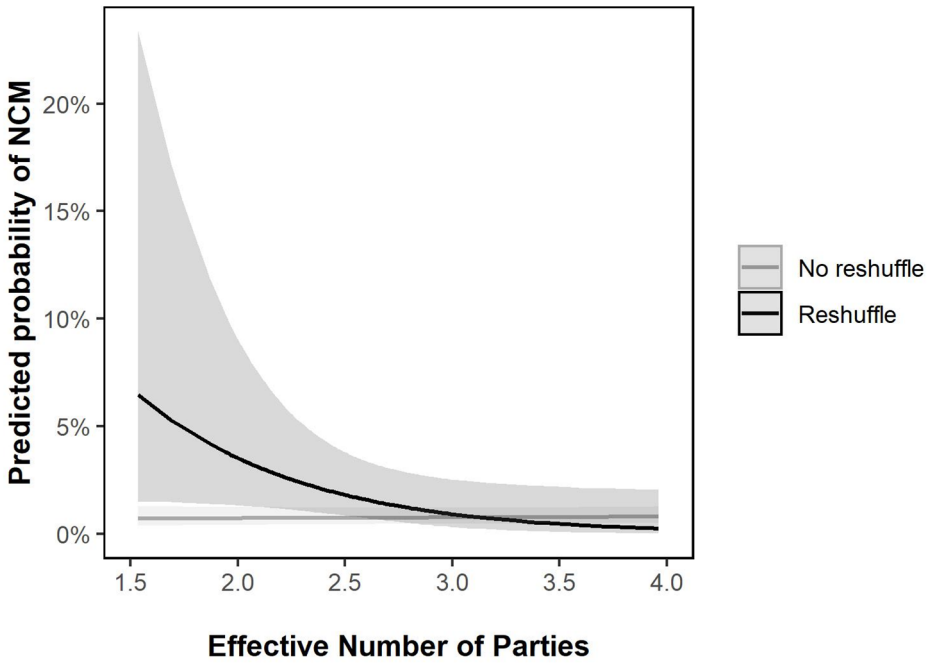
	Model 1	Model 2	Model 3	Model 4
Reshuffle	4.418** (1.725)	4.135** (1.684)	-0.586 (0.732)	-0.510 (0.750)
Effective number of parties	0.047 (0.102)	-0.032 (0.105)		
Reshuffle x Effective number of parties	-1.409** (0.680)	-1.299** (0.660)		
Single-party government			0.170 (0.233)	0.226 (0.290)
Reshuffle x Single-party government			1.595* (0.817)	1.535* (0.847)
Minority government	1.244*** (0.231)	1.135** (0.305)	1.151*** (0.239)	1.013*** (0.309)
Government tenure	0.002 (0.008)	0.002 (0.009)	0.002 (0.008)	0.002 (0.009)
Number of previous NCMs	0.051*** (0.008)	0.069*** (0.012)	0.051*** (0.008)	0.069*** (0.012)
GDP growth	-0.089*** (0.033)	-0.025 (0.041)	-0.085** (0.033)	-0.020 (0.041)
Intercept	-4.904*** (0.452)	-5.363*** (0.469)	-4.793*** (0.287)	-5.543*** (0.337)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.44_{country}$	$1.58_{country:gov}$	$0.45_{country}$	$1.59_{country:gov}$
ICC	0.12	0.32	0.12	0.33
N	$16_{country}$	$16_{country}$ 316_{gov}	$16_{country}$	$16_{country}$ 316_{gov}
Observations	6,991	6,979	7,002	6,990
Marginal R^2	0.146	0.124	0.121	0.106
Conditional R^2	0.247	0.409	0.226	0.397
AIC	1,244.339	1,197.601	1,247.653	1,200.767

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models 1 and 3 include country-level random effects only; models 2 and 4 include government and country-level random effects.

To aid interpretation of these results, figures 1 and 2 illustrate the magnitude of the interaction effects. Figure 1 is based on or main model, model 1, which employs the continuous operationalization of ENP, and shows how the impact of cabinet reshuffles on the predicted probability of no-confidence motions varies across levels of party system fragmentation. As is consistent with the government-in-waiting hypothesis, reshuffles increase the probability of no-confidence motions only in relatively concentrated party systems. As the number of parties grows larger, the effect of cabinet reshuffles on no-confidence motions decreases, loses statistical significance, and reaches zero at an ENP of 3.

Figure 1. Predicted probability of NCM following a cabinet reshuffle by effective number of (parliamentary) parties

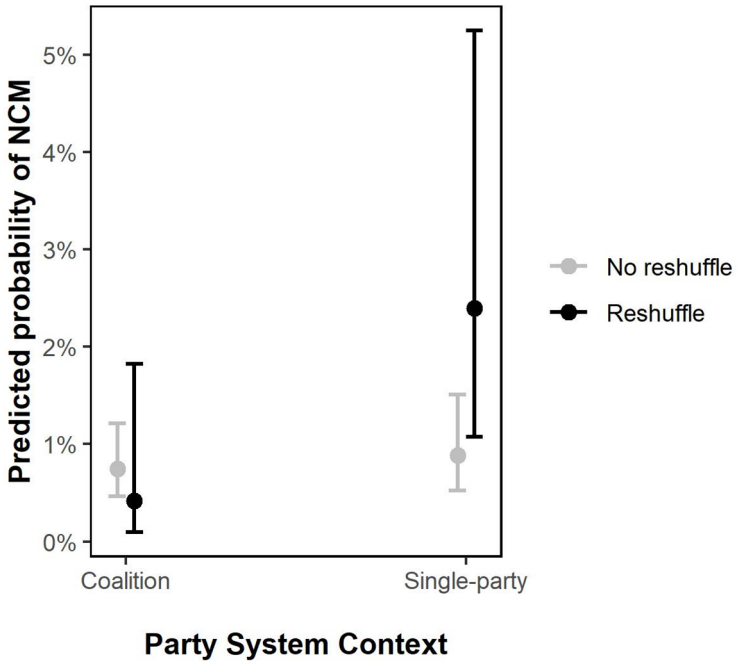


Note: Figure 1 plots the predicted probability of a no-confidence motion, at varying levels of ENP, when a reshuffle has or has not occurred in the preceding period. Shaded area indicates 95% confidence intervals. Predicted probabilities calculated based on model 1, using the *plot_model* function in *R* (Lüdecke 2020).

Figure 2 plots the relationship between cabinet reshuffles and the predicted probability of no-confidence motions in the context of coalition and single-party governments, based on model 3. In the context of coalitions, a reshuffle in any given month has no statistically

discernible impact on the predicted probability of no-confidence motions being proposed. By contrast, in the context of single-party governments, a reshuffle significantly increases the predicted probability of a no-confidence motions (from approximately 0.009, i.e., less than 1 per cent, to 0.025, i.e., 2.5 per cent).

Figure 2. Predicted probability of NCM following a cabinet reshuffle by government coalition status



Note: Figure 2 plots the predicted probability of a no-confidence motion, under coalition and single-party governments, when a reshuffle has or has not occurred in the preceding period. Bars indicate 95% confidence intervals. Predicted probabilities calculated based on model 3, using the *plot_model* function in *R* (Lüdecke 2020).

Turning to the controls, several variables have robust, statistically significant coefficients across all models: As prior work has found (Williams 2016), minority governments are more likely to suffer no-confidence motions, as are governments that have seen a higher number of previous no-confidence motions, which indicates that no-confidence motions are easier to initiate given the institutional and political environment. Conversely, positive economic conditions, which benefit the government and its popularity, reduce the probability

of a no-confidence motion (in Models 1 and 3). Other controls do not have consistent, statistically significant effects.

We examine the robustness of these findings by re-running our main model, model 1, in several alternative specifications (detailed results available in the Supplementary Information). First, we take account of the fact that three of our cases – Germany, Spain, and (after 1995) Belgium – have constructive no-confidence procedures. Although we expect NCMs in these settings to offer the opposition the same signalling opportunities, we probe whether taking account of this, more politically demanding form of no-confidence procedure alters our results. We do so by (i) controlling for constructive no-confidence procedures, and (ii) excluding the three countries concerned from our analysis (Table S.3). Second, we examine whether our findings are robust to including control variables for two other country-level institutional factors, which may affect opposition strategies – semi-presidentialism and a 'Westminster' heritage. We also include a linear time trend (see Table S.4).[5] Third, we explore whether any outliers drive our results by jack-knifing model 1 and sequentially excluding each of the sixteen countries from the analysis (Tables S.5-S.8). Fourth, we probe whether our results are robust to alternative conceptualizations of a reshuffle, our independent variable. In one specification we employ a broader operationalization – individual ministerial terminations (see Huber and Martínez-Gallardo 2008) – which includes changes affecting only a single minister. In another specification, we use a narrower operationalization – major reshuffles – defined as changes to *more than two officeholders or portfolios*. The results of this analysis (Table S.9) show that our results are robust when we focus on major reshuffles (the coefficient of reshuffles and its interaction with ENP are statistically significant and have the expected signs), but not when we use a broader operationalization of reshuffles that includes changes of individual ministers. This is not surprising. Individual ministerial changes often have non-political causes (e.g., illness, resignation for personal reasons, promotion to international institutions or other high-profile roles outside government). Because they have a wider range of causes, changes of single ministers occur more regularly and are less high-profile political events. For these reasons they are harder for the opposition to credibly depict as evidence of governance problems and to exploit for electoral signalling purposes. With this exception, all additional analyses show our results to be robust.

[5] Based on Elgie (1999), we classify Austria, Finland, France, Iceland, Ireland, and Portugal as semi-presidential. We classify Australia, Canada, Ireland, New Zealand, and the United Kingdom as having a Westminster heritage.

Conclusion

In this paper we have provided a first account of how cabinet reshuffles reverberate in the legislative arena, specifically how they affect the opposition's strategic use of no-confidence motions. This question has received surprisingly little attention, despite the extensive literature that studies cabinet reshuffles and their consequences within the executive (see e.g., Bäck and Carroll 2020; Indriðason and Kam 2020).

We merge the literature on government reshuffles with work on no-confidence motions and argue that cabinet reshuffles present strategic opportunities for the parliamentary opposition to call the electorate's attention to faltering government performance and difficulties by initiating a no-confidence motion. No-confidence motions are an electoral signalling mechanism that serves to dramatize the government's failings in a high-profile event that focuses voters' attention. This strategy, we propose, has direct payoffs for opposition parties that operate in concentrated party systems, which enable these parties to position themselves as a government in waiting. Our results lend support to the government-in-waiting hypothesis: opposition parties make strategic use of government reshuffles to initiate a vote of no-confidence conditional on party system concentration.

This finding contributes to two literatures of importance in political science. To work on cabinet reshuffles - which has primarily focused on reshuffles as a tool for chief executives to manage their ministerial teams, parties, and the expectations of their electorate - we contribute the insight that reshuffles also have repercussions in the parliamentary arena for the strategies of opposition parties. For the literature on parliamentary confidence and no-confidence in the executive, we highlight that reshuffles of the ministerial team present politically meaningful breaks in the life of a government, and a natural opportunity for legislators to revisit the question of confidence. Our findings show that opposition parties that can present themselves as a government in waiting are systematically more likely to dramatize these breaks for partisan gain.

The results also open up several avenues for future research. First, our work is based on a systematic, quantitative comparative analysis and future qualitative work might fruitfully trace the motivations and calculations of opposition actors to probe more fine-grained observable implications of the government-in-waiting effect that we find. Second, further work might investigate the effects of cabinet reshuffles on other aspects of executive-legislative relations, such as a government's legislative effectiveness or its longevity. Third, scholars

might ask whether the implications of reshuffles for parliamentary confidence vary with other aspects of the political and institutional context. For instance, further work could look beyond parliamentary systems, to explore how executive-legislative relations are affected by cabinet reshuffles in presidential democracies (see Martínez-Gallardo 2012, 2014). Addressing these questions would shed further light on how developments inside the executive affect its relationship with the legislature.

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Cabinet Reshuffles and Parliamentary No-Confidence Motions

Supplementary Information

Overview

This document presents data sources and descriptive statistics for the variables used in our main analysis and robustness checks (Tables S.1 and S.2). In addition, we present the following further supplementary analyses:

- Table S.3 – reestimation of model 1, accounting for constructive NCM procedures, (i) with a control for cases with these procedures (Model S1), and (ii) excluding the relevant countries (Model S2).
- Table S.4 – reestimation of model 1 with several additional controls, explained in main paper.
- Tables S.5-S.8 – jackknife analysis, reestimation of model 1, dropping one country at a time.
- Table S.9 – reestimation of model 1 with two alternative measures of reshuffles, as discussed in main paper.

Additional Tables

Table S.1. Data sources

Variable	Source
Main Paper	
NCM	Williams (2016)
Reshuffle	Calculated from Huber and Martínez-Gallardo (2008)
Single-party government	Williams (2016)
Effective number of parties	Williams (2016)
Minority government	Williams (2016)
Government tenure	Williams (2016)
Number of previous NCMs	Williams (2016)
GDP growth	Williams (2016)
Supplementary Information	
Individual termination	Calculated from Huber and Martínez-Gallardo (2008)
Major reshuffle	Calculated from Huber and Martínez-Gallardo (2008)

Table S.2. Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Main Paper					
NCM	7,173	0.020	0.138	0	1
Reshuffle	7,247	0.046	0.210	0	1
Single-party government	7,119	0.379	0.485	0	1
Effective number of parties	7,137	3.443	1.456	1.536	9.142
Minority government	7,112	0.180	0.384	0	1
Government tenure	7,153	16.891	12.697	1	61
Number of previous NCMs	7,173	5.240	8.182	0	62
GDP growth	7,063	2.549	2.826	-8.823	16.669
Supplementary Information					
Individual termination	7,247	0.098	0.298	0	1
Major reshuffle	7,247	0.029	0.167	0	1

Table S.3. Determinants of NCMs (Mixed-Effects Logistic Models) – accounting for constructive NCMs

	Model S1	Model S2
Reshuffle	4.409 ** (1.720)	4.706 ** (1.858)
Effective number of parties	0.044 (0.103)	0.063 (0.116)
Reshuffle x Effective number of parties	-1.405 ** (0.678)	-1.533 ** (0.743)
Minority government	1.245 *** (0.231)	1.371 *** (0.237)
Government tenure	0.002 (0.008)	0.001 (0.008)
Number of previous NCMs	0.051 *** (0.008)	0.052 *** (0.008)
GDP growth	-0.089 *** (0.033)	-0.107 *** (0.033)
Constructive NCM system	-0.179 (0.614)	
Intercept	-4.871 *** (0.463)	-4.865 *** (0.492)
Random Effects	Yes	Yes
σ^2	3.29	3.29
τ_{00}	$0.43_{country}$	$0.48_{country}$
ICC	0.11	0.13
N	$16_{country}$	$13_{country}$
Observations	6,991	5,924
Marginal R^2	0.146	0.155
Conditional R^2	0.244	0.262
AIC	1246.255	1130.837

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.4. Determinants of NCMs (Mixed-Effects Logistic Models) – Additional controls

	Model S3	Model S4	Model S5	Model S6
Reshuffle	4.629 *** (1.768)	4.302 ** (1.706)	4.425 ** (1.747)	4.434 ** (1.745)
Effective number of parties	0.043 (0.099)	0.089 (0.104)	-0.011 (0.112)	0.080 (0.108)
Reshuffle x Effective number of parties	-1.480 ** (0.698)	-1.370 ** (0.672)	-1.424 ** (0.690)	-1.426 ** (0.689)
Minority government	1.215 *** (0.229)	1.245 *** (0.230)	1.244 *** (0.238)	1.200 *** (0.235)
Government tenure	0.002 (0.008)	0.002 (0.008)	-0.001 (0.008)	-0.001 (0.008)
Number of previous NCMs	0.054 *** (0.008)	0.050 *** (0.008)	0.030 ** (0.012)	0.033 *** (0.012)
GDP growth	-0.091 *** (0.033)	-0.089 *** (0.033)	-0.080 ** (0.033)	-0.086 *** (0.033)
Semi-presidentialism	0.683 ** (0.346)			0.861** (0.376)
Westminster heritage		0.509 (0.442)		0.877 ** (0.425)
Linear time trend			0.032 *** (0.012)	0.030 ** (0.012)
Intercept	-5.124 *** (0.452)	-5.214 *** (0.518)	-5.504 *** (0.539)	-6.328 *** (0.619)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.29_{country}$	$0.42_{country}$	$0.58_{country}$	$0.31_{country}$
ICC	0.08	0.11	0.15	0.09
N	$16_{country}$	$16_{country}$	$16_{country}$	$16_{country}$
Observations	6,991	6,991	6,991	6,991
Marginal R^2	0.169	0.159	0.169	0.211
Conditional R^2	0.235	0.254	0.293	0.279
AIC	1243.076	1245.009	1238.926	1236.828

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.5. Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (1)

	Model S7	Model S8	Model S9	Model S10
Reshuffle	3.533 * (1.827)	4.534 *** (1.754)	4.404 ** (1.722)	4.865 *** (1.766)
Effective number of parties	0.087 (0.113)	0.048 (0.106)	0.057 (0.114)	0.061 (0.105)
Reshuffle x Effective number of parties	-1.197 * (0.699)	-1.440 ** (0.691)	-1.404 ** (0.679)	-1.518 ** (0.694)
Minority government	1.135 *** (0.235)	1.283 *** (0.234)	1.216 *** (0.234)	1.093 *** (0.244)
Government tenure	-0.000 (0.008)	0.004 (0.008)	0.000 (0.008)	0.006 (0.008)
Number of previous NCMs	0.081 *** (0.016)	0.051 *** (0.008)	0.051 *** (0.008)	0.052 *** (0.008)
GDP growth	-0.061 * (0.035)	-0.092 *** (0.034)	-0.086 *** (0.033)	-0.097 *** (0.034)
Intercept	-5.219 *** (0.488)	-4.963 *** (0.476)	-4.862 *** (0.465)	-4.995 *** (0.473)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.38_{country}$	$0.50_{country}$	$0.44_{country}$	$0.48_{country}$
ICC	0.10	0.13	0.12	0.13
N	$15_{country}$	$15_{country}$	$15_{country}$	$15_{country}$
Observations	6,443	6,503	6,536	6,538
Excluded case	Australia	Austria	Belgium	Canada
Marginal R^2	0.143	0.152	0.132	0.147
Conditional R^2	0.231	0.264	0.233	0.256
AIC	1066.811	1186.309	1218.362	1165.392

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.6. Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (2)

	Model S11	Model S12	Model S13	Model S14
Reshuffle	4.324 ** (1.748)	4.263 ** (1.901)	4.325 ** (1.869)	4.455 *** (1.698)
Effective number of parties	0.030 (0.103)	-0.076 (0.118)	0.048 (0.106)	0.056 (0.104)
Reshuffle x Effective number of parties	-1.377 ** (0.690)	-1.325 * (0.754)	-1.382 * (0.757)	-1.403 ** (0.668)
Minority government	1.297 *** (0.230)	1.390 *** (0.237)	0.973 *** (0.267)	1.253 *** (0.232)
Government tenure	0.003 (0.008)	-0.006 (0.009)	0.005 (0.008)	0.000 (0.008)
Number of previous NCMs	0.051 *** (0.008)	0.049 *** (0.009)	0.051 *** (0.009)	0.052 *** (0.008)
GDP growth	-0.083 ** (0.034)	-0.079 ** (0.040)	-0.082 ** (0.034)	-0.098 *** (0.033)
Intercept	-4.780 *** (0.434)	-4.469 *** (0.473)	-4.922 *** (0.470)	-4.920 *** (0.470)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.35_{country}$	$0.17_{country}$	$0.46_{country}$	$0.49_{country}$
ICC	0.10	0.05	0.12	0.13
N	$15_{country}$	$15_{country}$	$15_{country}$	$15_{country}$
Observations	6,520	6,552	6,500	6,649
Excluded case	Denmark	Finland	France	Germany
Marginal R^2	0.144	0.167	0.121	0.153
Conditional R^2	0.226	0.207	0.228	0.262
AIC	1197.048	1072.042	1108.314	1197.227

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.7. Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (3)

	Model S15	Model S16	Model S17	Model S18
Reshuffle	4.352 ** (1.717)	4.699 ** (1.846)	4.261 ** (1.735)	4.391 ** (1.719)
Effective number of parties	0.053 (0.100)	0.062 (0.104)	-0.005 (0.122)	0.071 (0.098)
Reshuffle x Effective number of parties	-1.385 ** (0.677)	-1.514 ** (0.743)	-1.347 ** (0.685)	-1.402 ** (0.678)
Minority government	1.213 *** (0.232)	1.297 *** (0.252)	1.294 *** (0.248)	1.190 *** (0.231)
Government tenure	0.001 (0.008)	-0.001 (0.008)	0.002 (0.008)	0.003 (0.008)
Number of previous NCMs	0.051 *** (0.008)	0.052 *** (0.008)	0.049 *** (0.009)	0.051 *** (0.008)
GDP growth	-0.089 *** (0.034)	-0.098 *** (0.036)	-0.093 *** (0.034)	-0.087 *** (0.033)
Intercept	-4.828 *** (0.441)	-4.967 *** (0.473)	-4.743 *** (0.509)	-4.884 *** (0.429)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.39_{country}$	$0.48_{country}$	$0.52_{country}$	$0.35_{country}$
ICC	0.11	0.13	0.14	0.10
N	$15_{country}$	$15_{country}$	$15_{country}$	$15_{country}$
Observations	6,504	6,530	6,581	6,523
Excluded case	Iceland	Ireland	Italy	Netherlands
Marginal R^2	0.147	0.159	0.143	0.148
Conditional R^2	0.238	0.266	0.260	0.231
AIC	1227.520	1110.899	1156.583	1238.558

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.8. Determinants of NCMs (Mixed-Effects Logistic Models) – Dropping cases (4)

	Model S19	Model S20	Model S21	Model S22
Reshuffle	4.528 ** (1.797)	4.482 *** (1.710)	4.705 ** (1.896)	4.471 ** (2.095)
Effective number of parties	0.007 (0.108)	0.050 (0.106)	0.043 (0.103)	0.067 (0.105)
Reshuffle x Effective number of parties	-1.451 ** (0.709)	-1.411 ** (0.673)	-1.552 ** (0.760)	-1.438 * (0.787)
Minority government	1.215 *** (0.233)	1.356 *** (0.239)	1.393 *** (0.233)	1.210 *** (0.247)
Government tenure	0.002 (0.008)	0.002 (0.008)	0.005 (0.008)	0.005 (0.008)
Number of previous NCMs	0.051 *** (0.008)	0.052 *** (0.008)	0.052 *** (0.008)	0.053 *** (0.008)
GDP growth	-0.090 *** (0.034)	-0.093 *** (0.034)	-0.101 *** (0.033)	-0.083 ** (0.034)
Intercept	-4.732 *** (0.478)	-4.977 *** (0.474)	-4.895 *** (0.460)	-5.081 *** (0.480)
Random Effects	Yes	Yes	Yes	Yes
σ^2	3.29	3.29	3.29	3.29
τ_{00}	$0.46_{country}$	$0.51_{country}$	$0.43_{country}$	$0.48_{country}$
ICC	0.12	0.13	0.12	0.13
N	$15_{country}$	$15_{country}$	$15_{country}$	$15_{country}$
Observations	6,532	6,726	6,721	6,507
Excluded case	New Zealand	Portugal	Spain	United Kingdom
Marginal R^2	0.151	0.155	0.165	0.146
Conditional R^2	0.255	0.268	0.262	0.255
AIC	1209.315	1188.536	1203.759	1120.614

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.

Table S.9. Determinants of NCMs (Mixed-Effects Logistic Models) – Alternative reshuffle measures

	Model S23	Model S24
Individual termination	1.171 * (0.706)	
Major reshuffle		7.959 * (4.098)
Effective number of parties	0.042 (0.105)	0.027 (0.103)
Individual termination x Effective number of parties	-0.215 (0.214)	
Major reshuffle x Effective number of parties		-3.139 * (1.756)
Minority government	1.212 *** (0.230)	1.247 *** (0.231)
Government tenure	0.002 (0.008)	0.002 (0.008)
Number of previous NCMs	0.051 *** (0.008)	0.051 *** (0.008)
GDP growth	-0.087 *** (0.033)	-0.088 *** (0.033)
Intercept	-4.904 *** (0.460)	-4.804 *** (0.452)
Random Effects	Yes	Yes
σ^2	3.29	3.29
τ_{00}	$0.43_{country}$	$0.45_{country}$
ICC	0.12	0.12
N	$16_{country}$	$16_{country}$
Observations	6,991	6,991
Marginal R^2	0.116	0.194
Conditional R^2	0.219	0.290
AIC	1251.212	1249.566

***p < .01; **p < .05; *p < .1

Note: Table entries report log odds, standard errors in parentheses. Models include country-level random effects.