

Supplementary Material for ‘Government Formation in Presidentialism: disentangling the combined effects of pre-electoral coalitions and legislative polarisation’

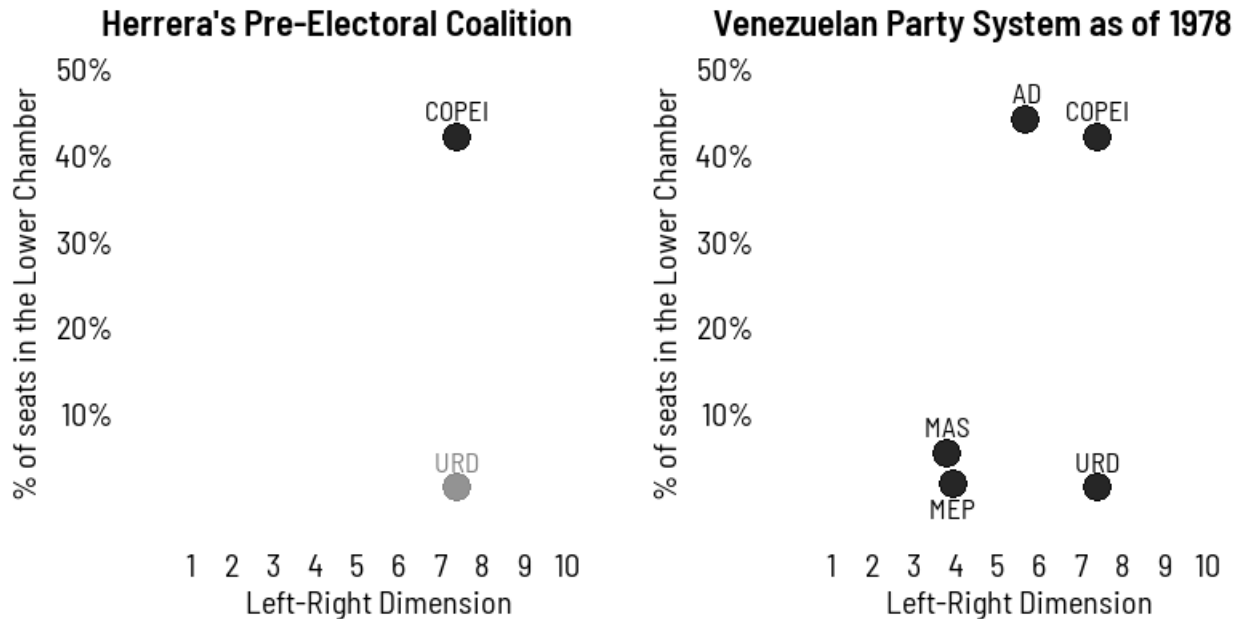
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1 Alternative Illustrations for the Entanglement between Pre-Electoral Coalitions and Legislative Polarisation

In the main text, I provided two examples of my argument. The first instance showcases a government formation process where the *formateur* party finds itself in a very constrained setting, where the party system is divided into two contrasting camps. In a complementary fashion, the second exemplification exhibits a government-forming process where the legislative polarisation is not as equally oppressive. While the former led to a coalition government that entirely reproduced its pre-electoral origin, the latter resulted in two former pre-electoral coalition members not receiving any government ministry. Below, I provide two extra graphical representations of my argument.

First, Figure [A.1](#) shows the share of seats and ideological positions for Herrera’s pre-electoral coalition members on the left and does the same for the party system on the right. In this case, the pre-electoral coalition did not survive the election stage and the Democratic Republican Union (URD, *Unión Republicana Democrática*) was deprived of

Figure A.1: Herrera's Government Formation Process



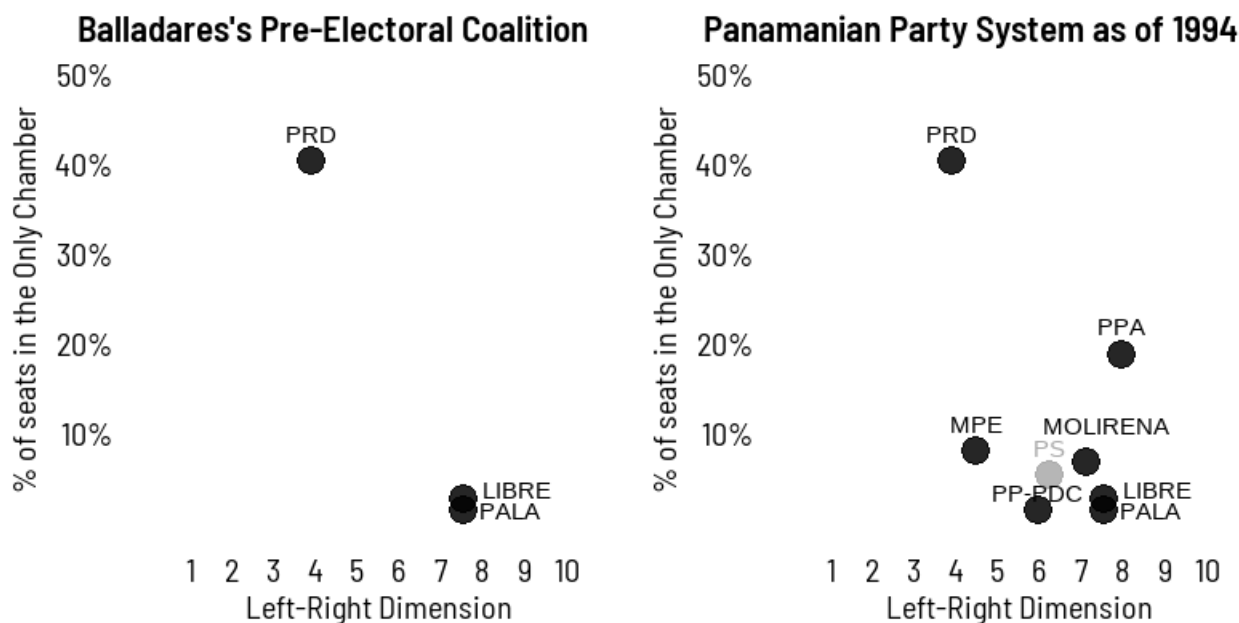
Note: Parties' size comes from the DPEILA (Borges et al., forthcoming), and parties' ideology hails from Baker and Greene (2011). The original 20-point scale was transformed into a 10-point scale for the sake of better visualisation. The URD's policy position was missing and was therefore imputed from Freudenreich (2016). In the left panel, the URD - the pre-electoral member who ultimately was not rewarded with any government ministry - is in dark grey.

top office positions, just like the Brazilian Republican Party (PRB, *Partido Republicano Brasileiro*), and the Social Christian Party (PSC, *Partido Social Cristão*) in the Brazilian example discussed in the main text. The difference resides in the fact that the presidential party did not look for any other party to join the government. In fact, at the time, Venezuela was at the height of the duopoly between the Democratic Action (AD, *Acción Democrática*) and the Independent Political Electoral Organization Committee (COPEI, *Comité de Organización Política Electoral Independiente*) enabled by the Pact of Punto Fijo (Handlin, 2017). Even if there is more story to be told about this particular case, of particular note for our purposes here is that the pre-electoral coalition fractured in a context of low legislative polarisation.

Drawing from an experience in Panama in 1994, Figure A.2 presents a case of post-electoral expansion of the pre-electoral pact. To be sure, this example does not perfectly capture the argument presented in the main text, and this is so for two reasons. First, while ideology certainly structures party competition to some extent (Nevache et al., 2023), clientelistic ties are widespread in the country, especially soon after redemocrati-

sation, and should absolutely not be disregarded (Barragán, 2020). Second, due to their failed attempt to pass the electoral threshold, the two non-presidential pre-electoral coalition members were disbanded soon after taking office, and their members were subsequently incorporated by the presidential party (Rodríguez Mójica, 2000). As a result, this leaves the case in a grey area, as the pre-election coalition was neither totally fulfilled (the former pre-electoral coalition members did not formally receive cabinet posts) nor entirely broken (they were still part of the government, but from *within* the *formateur*'s party). Notwithstanding these caveats, this example serves well to graphically show the paper's argument in the context of pre-election coalition enlargement.

Figure A.2: Balladares's Government Formation Process



Note: Parties' size and ideology hail from the V-Party dataset (Lindberg et al., 2022). The original 7-point scale was transformed into a 10-point scale for the sake of better visualisation. There was no available information on minor and regionalist parties. The policy positions of both junior pre-election coalition members - the Republican Liberal Party (LIBRE, *Republican Liberal Party*) and the Labour Party (PALA, *Partido Laborista*) - come from Freudenreich (2016). In the right panel, the party in light grey secured membership in the coalition even if it was not a member of the pre-electoral coalition.

Differently from Herrera's government formation bargaining process, Balladares found himself in a more constrained situation — albeit glaringly less so than that of Piñera in Chile in 2010. Even though the pre-electoral coalition was close to granting the government majority legislative support, legislative polarisation in the party system was at a moderate level. Through the lens of the article's argument, excluding any pre-electoral coalition member was relatively costly, even if their seat share was arguably low. In real-

ity, it made little sense not to include them in the government (or in the presidential party, to be more precise), as their party brands would be dissolved sooner rather than later, and the presidential party was desperately searching for a legislative majority. Thus, the question was not whether pre-electoral coalition members would be in the government when Balladares took office, but who else would be called to have a cabinet seat.

When the president-elect was sworn into office, the pre-electoral pact was then slightly modified by the inclusion of the Solidarity Party (PS, *Partido Solidaridad*) in the ministerial allocation process. Naturally, the Motherland Movement (MPE, *Movimiento Papa Egoró*) also emerged as one potential coalition partner at the post-election stage. However, the MPE decided not to align formally with either the government or the opposition. In the end, as the pre-electoral coalition formed the basis of the government — even if from inside the presidential party as previously discussed, the ensuing coalition cabinet represented an instance of pre-electoral coalition enlargement.

In combination, these two examples, along with those presented in the main text, cover the movements of the transition of pre-electoral coalitions into full-fledged governments. In this way, the argument underlying the relationship between pre-electoral coalitions and legislative polarisation applies to processes by which the government is a perfect mirror of the pre-electoral coalition (Chile in 2010 - Figure 2 in the main text), an enlarged version of it (Panama in 1994 - Figure A.2), a coalition government that does not include every pre-electoral coalition partner (Brazil in 2010 - Figure 3 in the main text), and a single-party government that breaks from the pre-electoral alliance (Venezuela in 1978 - A.1).

2 Government Formation Illustration

Let us examine the process of government formation in presidential democracies with the Uruguayan party system in 2000. By the end of the century, the Uruguayan party system was comprised of four political parties:¹ the Colorado Party (PC, *Partido Colorado*), the National Party (PN, *Partido Nacional*), the Broad Front (FA, *Frente Amplio*), and the

New Space (NE, *Nuevo Espacio*). Against this backdrop, as soon Batlle was sworn into office, he could have built his cabinet in eight different ways,² as listed in Table A.1. The government formation process ultimately led to a coalition between the PC and the PN. In this specific case, the only option to be coded as 1 in our dependent variable is the actual government formed between the PC and the PN, while all the remaining options are coded as 0. Thus, the interest resides in explaining why this potential coalition emerged at the expense of the others. In this context, the conditional logit model is particularly well-equipped to provide a broad overview of the reasons for government formation in presidential settings.

Table A.1: Potential governments following the 1999 Uruguayan general election

Formateur	Coalition Partner(s)
PC	–
PC	FA
PC	PN
PC	NE
PC	FA - PN
PC	FA - NE
PC	PN - NE
PC	FA - PN - NE

Note: The formed government is highlighted in bold.

3 Updating Dataset on Government Formation in Latin America

Here, I briefly outline the updating process of the dataset on government formation in Latin America, which was originally developed by [Freudenreich \(2016\)](#). The first step was ensuring that only democratic periods were inserted in the dataset. To do so, I checked which country-years were democratic based on [Bjørnskov and Rode \(2020\)](#) and the Polity V ([Marshall and Gurr, 2020](#)). Country-years deemed as either undemocratic or scoring below six on Polity V Index have been cast aside. Next, I retrieved information on the Latin American party systems to be updated from the DPEILA ([Borges et al., forthcoming](#)) and the V-Party dataset ([Lindberg et al., 2022](#)), such as the number of

parties in the legislature, their seat share, and their left–right placements. In the next stage, I looked for data on the composition of presidential cabinets and coded actual governments following Amorim Neto (2019), Camerlo and Martínez-Gallardo (2018), Nyrup and Bramwell (2020) and Silva (2022). Then, the last step consisted of coding which potential governments were based on pre-election coalitions. Data on most recent Latin American pre-election coalitions come mostly from Borges et al. (2021) and Lopes (2022), and, for cases not covered by scholarly literature yet, I relied on the countries’ respective electoral committees or similar departments charged with electoral affairs.

To avoid falling victim to the violation of the independence of irrelevant alternatives (IIA), a different procedure was made to include Brazil’s case in the wake of its 2018 legislative and presidential elections. In the aggregate, thirty parties gained representation in the lower chamber after the elections, with twenty-two holding more than one per cent of the share of seats. As a consequence, this number of parties would have generated more than two million potential governments and, thus, would make conditional logit regressions invariable. The solution found was to raise the threshold for inclusion in the dataset for this specific election from one to roughly two-and-a-half per cent of seats. However, to prevent losing information, I also considered relevant parties with known policy positions on the DPEILA, despite not holding two-and-a-half per cent of the seats of the Chamber of Deputies. In total, the parties dropped from the analysis hold, together, roughly 13.5% of the legislative seats, which are, regrettably, missed in the study.

Relatedly, I draw attention to the importance of not including minor parties in the dataset. Indeed, the exclusion of parties with less than one percentage of legislative seats is far from being a mere subtlety. More often than not, research on government formation considers that *formateur* parties have various coalition alternatives from which they choose only one to actually form. Taking out non-significant parties from the analysis prevents researchers from stumbling at measurement errors. To see why this is the case, let me consider the 2002 pre-electoral coalition led by Lula. Despite being comprised of five parties, the pre-electoral coalition embraced two very small parties, the Party of National Mobilization (PMN, *Partido da Mobilização Nacional*) and the Brazilian Communist

Party (PCB, *Partido Comunista Brasileiro*). Together, both parties accounted for exactly one seat following the 2002 general election in Brazil. Not surprisingly, neither party was invited to be part of the upcoming government. If the PMN and the PCB had been in the dataset on government formation, they would have caused two problems of major concern. Firstly, they would have wrongly generated more options of feasible coalition alternatives than there actually were. Secondly, and posing a graver threat to the research design, the inclusion of these petite parties would have made the researchers incorrectly assign the formed government as non-driven by a pre-election pact, as the two members had been dropped.

4 Brief Discussion on Legislative Polarisation

It is worth mentioning that the Legislative Polarisation Index applied in the main body of the article is not intended to measure the difference in legislative polarisation from the pre-electoral to the post-electoral scenario; instead, it is aimed to measure the ideological polarisation in the legislature after all actors know the election results. This point raises the question of whether political parties are fully aware of the policy preferences of one another when it is time to form a new cabinet after a general election. This situation is further aggravated by the fact that political actors are in a context inundated with imperfect information and bounded rationality (Shepsle, 2006).

In order to circumvent this problem, Curini and Pinto (2016) resort to the “average ideological range” of party systems by looking at the distance between the right-most party to the left-most party on a host of policy domains taking into consideration the previous government. However, this solution is far from ideal to be applied in this work for several reasons. First, the hypothesised causal effect put forward here concerns only *the degree* of legislative polarisation, not its *change* in comparison with a previous setting. Second, the “average ideological range” is blind to parties’ size, thus assigning disproportional weight to small extremist parties and, consequently, not tapping neatly into the concept of legislative polarisation. The final nail in the coffin is the fact that this

paper measures ideological polarisation in the legislature for only one dimension, namely the standard economic left-right cleavage, whereas [Curini and Pinto \(2016\)](#) had data for party preferences in eight dimensions.

To sum up, despite the fact that the literature has come up with alternatives to deal with the uncertainty around government formation, changing the polarisation index to an ideological range does not seem fruitful for this work.

5 Variables and Descriptive Statistics

Table A.2: Variables and Operationalisation

Variables	Operationalisation	Type
Actual Government	Whether the potential government emerged out of the government formation process. 1 = yes; 0 = no	Dummy
Minority	Whether the potential government is in a minority situation in the only chamber of the legislature or in the lower chamber. 1 = yes; 0 = no	Dummy
Number of Parties	How many parties are included in each potential government.	Discrete
Ideological Division	The ideological distance between the left-most and the right-most parties within each potential government. In turn, left parties were coded as positioned at 0.0, centre-left parties at 2.5, centre parties at 5.0, centre-right parties at 7.5, and right parties at 10.0	Discrete
Median Party	Whether the potential government contains the median party in its composition. 1 = yes; 0 = no In turn, the median party was identified by, beginning at each extreme of the ideological spectrum, summing up the share of seats of each party in the party system and visualising which party adds the last remaining share for reaching a majority.	Dummy
Extreme Parties	Whether the potential government contains extreme parties in its composition. 1 = yes; 0 = no In turn, extreme parties were identified as those located in a position more distant from the centre than the presidential party.	Dummy
Runner-up Party	Whether the potential government contains the party that finished as the second-most voted option in the presidential election. In the case of legislative elections, the Runner-up Party is the same as in the last presidential election. 1 = yes; 0 = no	Dummy
Pre-Electoral Coalition	Whether the potential government is based on any version of a pre-electoral coalition, either a congruent or an extended version thereof. 1 = yes; 0 = no	Dummy
Legislative Polarisation	The ideological polarisation in the legislature at each government formation opportunity following a presidential or legislative election.	Continuous

Table A.3: Descriptive Statistics

Variables	Mean	St. Dev.	Min	Max	N
DV:					
Actual Government	0.001	0.031	0	1	149,784
IV:					
Minority	0.363	0.480	0	1	149,784
Number of Parties	7.877	2.235	1	17	149,784
Ideological Division	6.911	1.962	0	10	149,784
Median Party	0.568	0.495	0	1	149,784
Extreme Parties	0.555	0.496	0	1	149,784
Runner-up Party	0.498	0.500	0	1	149,784
Pre-Electoral Coalition	0.049	0.217	0	1	149,784
Legislative Polarisation	3.201	0.714	0.0006	5.749	149,452

6 Robustness Tests

To test whether the combined effects of pre-electoral coalitions and legislative polarisation are not achieved by chance or due to a misguided operationalisation, I conduct a whole series of robustness tests to check the validity of my results. I begin by examining whether differentiating between coalition governments that perfectly match their pre-electoral composition from those that represent an increased version of the pre-electoral pact changes the sign, the statistical significance and the substantial power of the coefficient of the product term. The results can be seen in Table [A.4](#).

Table A.4: Accounting for the Difference between Congruent and Enlarged PECs

	Model 1	Model 2	Model 3
Minority	-1.334*** (0.335)	-1.385*** (0.322)	-1.380*** (0.339)
Number of Parties	-1.374*** (0.146)	-1.401*** (0.144)	-1.751*** (0.168)
Ideological Division	-0.202*** (0.054)	-0.231*** (0.055)	-0.174*** (0.056)
Median Party	1.210*** (0.322)	1.246*** (0.311)	1.318*** (0.329)
Extreme Parties	0.519 (0.433)	0.398 (0.413)	0.272 (0.511)
Runner-up Party	-1.444*** (0.393)	-1.717*** (0.390)	-1.337*** (0.399)
Congruent Pre-Electoral Coalition (PEC)	-0.304 (1.619)		-2.264 (2.023)
Enlarged Pre-Electoral Coalition (PEC)		-1.763 (1.858)	-3.172 (2.265)
Congruent PEC * Legislative Polarisation	1.319** (0.530)		2.566*** (0.704)
Enlarged PEC * Legislative Polarisation		1.324** (0.601)	2.625*** (0.771)
Observations	104	104	104
Number of Alternative Cabinets	147,736	147,736	147,736
Log Likelihood	-280.698	-303.854	-250.693

Note: Minority presidents only

*p<0.1; **p<0.05; ***p<0.01

In the following, I investigate whether the lack of information on upper chamber status is troublesome for my analysis. With that in mind, I first re-run models with [Freudenreich's \(2016\)](#) original data, which have information on minority status in both lower and upper chambers. Then, I divide the original dataset into bicameral and unicameral countries and re-run models for bicameral countries only. I wrap up this part by repeating the last procedure on the updated dataset.

Next, I replace the V-Party measure with [Baker and Greene's \(2011\)](#) ideological classification of Latin American parties to check whether the findings remain the same regardless of the ideological measure choice. Then, I restrict the sample to include only those party systems with more than 2.5 effective number of parties and once again re-run the conditional logit models. This test, in particular, represents a most-likely scenario for the hypothesised theory to hold. This is the case as coalitional bargaining is more typical in more fragmented settings, and consequently, the product term between legislative polarisation and pre-electoral coalition should not lose statistical strength once less fragmented party systems are removed from the analysis.

This part's last battery of tests concerns gauging whether specific aspects of electoral systems and party systems have empirical implications for my argument. The first feature that may influence the transformation of pre-electoral coalitions into governing coalitions is the undertaking of common party primaries. Let us suppose that a set of parties agreed on defining its presidential and legislative candidates by means of conjoint party primaries. In that case, pre-electoral coalition members naturally have a higher likelihood of composing the next government if the pre-election alliance is successful in the electoral arena, as breaking the pre-electoral coalition apart is immensely costly. Consequently, cabinet formation would not have too much to do with legislative polarisation, but rather with party primaries *per se*.

Coding common party primaries proves to be extremely difficult, partly due to the nature of the scholarship on party primaries, which has not had a comparative empirical focus ([Navarro and Sandri, 2017](#)). To deal with it, I rely on a *proxy* measure by

coding whether or not presidential parties chose their candidates through a primary election. Even if I do not tap perfectly into the concept of *common* party primaries, this measure captures the degree of formalisation around the process of selecting presidential candidates and encapsulates pre-election coalitions that chose their presidential runner by resorting to a multiparty primary election. Hence, I narrow down the dataset only to those governments that had their presidents chosen through primary elections and then re-run the models.

I also control for the possible confounding effect of electoral institutions on the relationship between pre-election pacts and legislative polarisation. This is because electoral institutions can encourage interparty coordination across different levels of competition and, consequently, make pre-electoral pacts less prone to breaking in a post-electoral scenario, as parties have made concessions to one another in various arenas. Hence, I control for the use of proportional electoral systems and the application of the D'Hondt formula.

Lastly, I probe the extent to which my findings are valid when taking into account both the degree of party system institutionalisation and electoral volatility. Since governing is an iterative process, where pre-electoral coalition members can punish presidential parties for not inviting them to the cabinet in the past, it may be the case that *formateur* parties refrain from breaking pre-electoral pacts in politically stable party systems, where the vote turnover among parties is low from one election to another, and political brands remain the same over time. To see if this is the case, I use data on party system institutionalisation from [Coppedge et al. \(2023\)](#) and calculate electoral volatility based on the Pedersen Index ([Pedersen, 1983](#)) with information on parties' vote share from the DPEILA ([Borges et al., forthcoming](#)). I then restrict the sample to those cases above and below the median for both measures, respectively, and re-run the models.³

Table [A.5](#) exhibits the results for the above tests.

Table A.5: Robustness Checks for Government Formation in Latin America

	Freudenreich Original (FO)	Bicameral Systems in FO	Bicameral Systems	Baker and Greene (2011)	ENPP >2.5	With Primaries	Proportional Systems	D'Hondt Method	PSI >0.724	Elec. Volat. <2.0%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Lower Chamber Minority	-0.961** (0.397)	-1.493*** (0.505)	-1.641*** (0.417)	-0.823* (0.450)	-1.522*** (0.347)	-0.672 (0.566)	-1.224*** (0.357)	-0.798 (0.616)	-1.575** (0.800)	-1.606** (0.721)
Upper Chamber Minority	-1.140** (0.460)	-0.393 (0.528)								
Number of Parties	-1.974*** (0.201)	-1.728*** (0.213)	-1.646*** (0.181)	-1.708*** (0.215)	-1.793*** (0.165)	-2.077*** (0.302)	-1.766*** (0.171)	-2.407*** (0.348)	-1.339*** (0.337)	-0.542*** (0.201)
Ideological Division	-0.134** (0.063)	-0.133* (0.074)	-0.158** (0.069)	-0.138* (0.077)	-0.184*** (0.058)	-0.015 (0.107)	-0.179*** (0.059)	0.036 (0.105)	-0.526*** (0.149)	-0.387*** (0.147)
Median Party	1.345*** (0.405)	1.214** (0.514)	1.448*** (0.431)	1.482*** (0.519)	1.281*** (0.333)	1.793*** (0.616)	1.229*** (0.347)	1.407** (0.654)	0.562 (0.699)	2.272** (1.119)
Extreme Parties	0.634 (0.594)	0.692 (0.667)	0.360 (0.570)	0.830 (0.556)	0.226 (0.509)	1.002 (0.781)	0.498 (0.552)	-0.117 (1.099)	-3.839 (4.221)	0.581 (0.853)
Runner-up Party	-1.677*** (0.499)	-1.472*** (0.544)	-1.619*** (0.499)	-1.188** (0.545)	-1.308*** (0.407)	-1.214* (0.653)	-1.312*** (0.428)	-0.483 (0.608)	-0.820 (0.837)	-3.826*** (1.324)
Pre-Electoral Coalition (PEC)	-2.539 (2.159)	-4.488* (2.556)	-4.251** (2.131)	-10.877*** (4.051)	-2.675 (1.896)	0.001 (2.447)	-3.685* (2.239)	-9.182** (4.617)	-13.354 (14.255)	-19.956 (13.874)
PEC * Legislative Polarisation	2.511*** (0.749)	2.953*** (0.901)	3.003*** (0.775)		2.617*** (0.666)	1.666** (0.833)	2.982*** (0.792)	6.621*** (2.085)	8.057* (4.514)	7.386* (4.291)
PEC * Legislative Polarisation (BG)				4.705*** (1.257)						
Cabinets	79	52	64	55	94	41	93	41	36	22
Number of Alternative Cabinets	55,432	49,492	141,236	53,328	147,644	6,136	142,528	23,424	149,200	211,528
Log Likelihood	-185.549	-150.321	-189.082	-150.247	-242.776	-88.958	-227.380	-72.632	-54.185	-126.760

Note: PSI stands for Party System Institutionalisation.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

In the sequence, I also test whether the results reported in the main text are sensitive to different party–voter linkages. It might be the case that in party systems weakly shaped by ideological lines, potential coalition partners are willing to make a hefty of concessions just to get closer to the levers of power. This should be more likely to happen in party systems where clientelistic exchange is the main force behind citizen-politician linkage. To test for this possibility, I first rely on the expert survey organised by the Democratic Accountability and Linkages Project (DALP).⁴ More specifically, I make use of the country-average responses to the following question: ‘In general, how much effort do politicians and parties in [COUNTRY] make to induce voters with preferential benefits to cast their votes for them?’, for which experts could answer ‘A negligible effort or none at all’, ‘A minor effort’, ‘A moderate effort’ or ‘A major effort’. The main advantage of the DALP data is that it provides a measure centred specifically on capturing to what extent political actors employ clientelistic strategies. The downside, though, is that the data is temporally bounded to the two years of 2008 and 2009. In order not to lose most of my observations, I make the hardly realistic assumption that the country averages do not change over the years.

To complement the analysis with an eye on overcoming this shortcoming, I also resort to the V-Dem dataset ([Coppedge et al., 2023](#)). Specifically, I draw on the *v2psprlnks* variable, which asks country respondents the most common form of party–voter linkage in a country in a given year. The responses lie in a continuum ranging from “Clientelistic” to “Policy/programmatic”. In conjunction, the DALP and V-Dem datasets provide us with well-rounded information to further examine whether party linkages impinge the effects of pre-election coalitions and legislative polarisation on government formation. [Table A.6](#) shows the results of re-running the analysis upon different subsets of the main text’s original data according to the dominant party-voter linkage in each case.

Table A.6: Government Formation According to Different Types of Party-Voter Linkages

	DALP	Programmatic V-Dem	Clientelistic V-Dem
	(1)	(2)	(3)
Minority	-1.471*** (0.387)	-2.328*** (0.751)	-1.249*** (0.403)
Number of Parties	-1.884*** (0.180)	-1.029*** (0.260)	-2.453*** (0.238)
Ideological Division	-0.090 (0.060)	-0.582*** (0.147)	-0.027 (0.064)
Median Party	1.247*** (0.366)	1.173* (0.708)	1.575*** (0.390)
Extreme Parties	0.241 (0.512)	0.728 (1.170)	0.415 (0.601)
Runner-up Party	-1.638*** (0.476)	-2.087** (0.830)	-1.287*** (0.481)
Pre-Electoral Coalition (PEC)	-2.361 (1.890)	-7.643 (5.674)	-1.319 (2.184)
PEC * Legislative Polarisation	2.293*** (0.669)	4.698** (1.861)	2.126*** (0.753)
Cabinets	75	29	75
Number of Alternative Cabinets	145,672	106,320	41,416
Log Likelihood	-205.265	-72.864	-154.700

Note: *Minority presidents only*

*p<0.1; **p<0.05; ***p<0.01

One more fact that deserves attention is that different from other regions, economic and socio-cultural policy positions represent essentially the same dimension in party competition in Latin America, barring minor details (Martínez-Gallardo et al., 2023; Rosas, 2005). As a result, this grants us one more opportunity to falsify the conditional theory put forward in the main text by replacing party policy positions on the classic economic left-right issues with party policy positions on the socio-cultural dimension. As our hypothesis testing requires data updated from time to time (i.e., after every legislative and presidential election), I rely again on the DPEILA (Borges et al., forthcoming). This time, I use the *polz_libcons_st* variable, which calculates legislative polarisation in the liberal-conservative dimension instead of the traditional left-right dimension. To put it in simple terms, this variable captures the extent to which the party system is polarised when it comes to the divide between liberal and conservative values. This liberal-conservative

dimension, in turn, draws from three V-Party’s indicators, namely *v2parelig* (religious principles), *v2pawomlab* (working women), and *v2palgbt* (LGBT social equality). In this way, this dimension refers to parties’ stance in relation to secularism, women’s inclusion in the workforce, and, ultimately, the protection of individual liberties and rights. The results are shown in Table A.7.

Table A.7: Legislative Polarisation based on the Liberal-Conservative Dimension

	Model 1
Minority	-1.126*** (0.365)
Number of Parties	-1.794*** (0.177)
Ideological Division	-0.175*** (0.062)
Median Party	1.518*** (0.362)
Extreme Parties	0.539 (0.519)
Runner-up Party	-1.358*** (0.455)
Pre-Electoral Coalition (PEC)	-3.352** (1.648)
PEC * Legislative Polarisation (Liberal-Conservative Dimension)	5.892*** (1.085)
Cabinets	87
Number of Alternative Cabinets	143,164
Log Likelihood	-216.647

Note: Minority presidents only

*p<0.1; **p<0.05; ***p<0.01

Still, it could be the case that the impact of pre-electoral coalitions on the government formation process is not only mediated by the degree of legislative polarisation but also by the ideological distance between presidential and median parties. To be sure, the underlying reasoning is that extremist presidents would be more willing to stick to their pre-election coalition partners because of their policy incompatibility with the rest of the parties in the legislature.⁵ Following from this, we can also explore whether more centrist presidential parties - relative to median parties - display the behaviour reported in the main text. In fact, if they do, our confidence in the paper’s main findings should, there-

fore, be further enhanced. This is the case as centrist presidents are more malleable to policy compromise than their extremist counterparts (Arnold et al., 2017). As a result, they could be more open to rearranging their pre-electoral multiparty alliances by excluding pre-electoral coalition members in order to accommodate post-electoral partners. However, if the paper’s results are robust, this relationship should be moderated by the degree of legislative polarisation. Table A.8 reports the complete regression estimates, and Figure A.3 provides a visual of the three-way interaction.

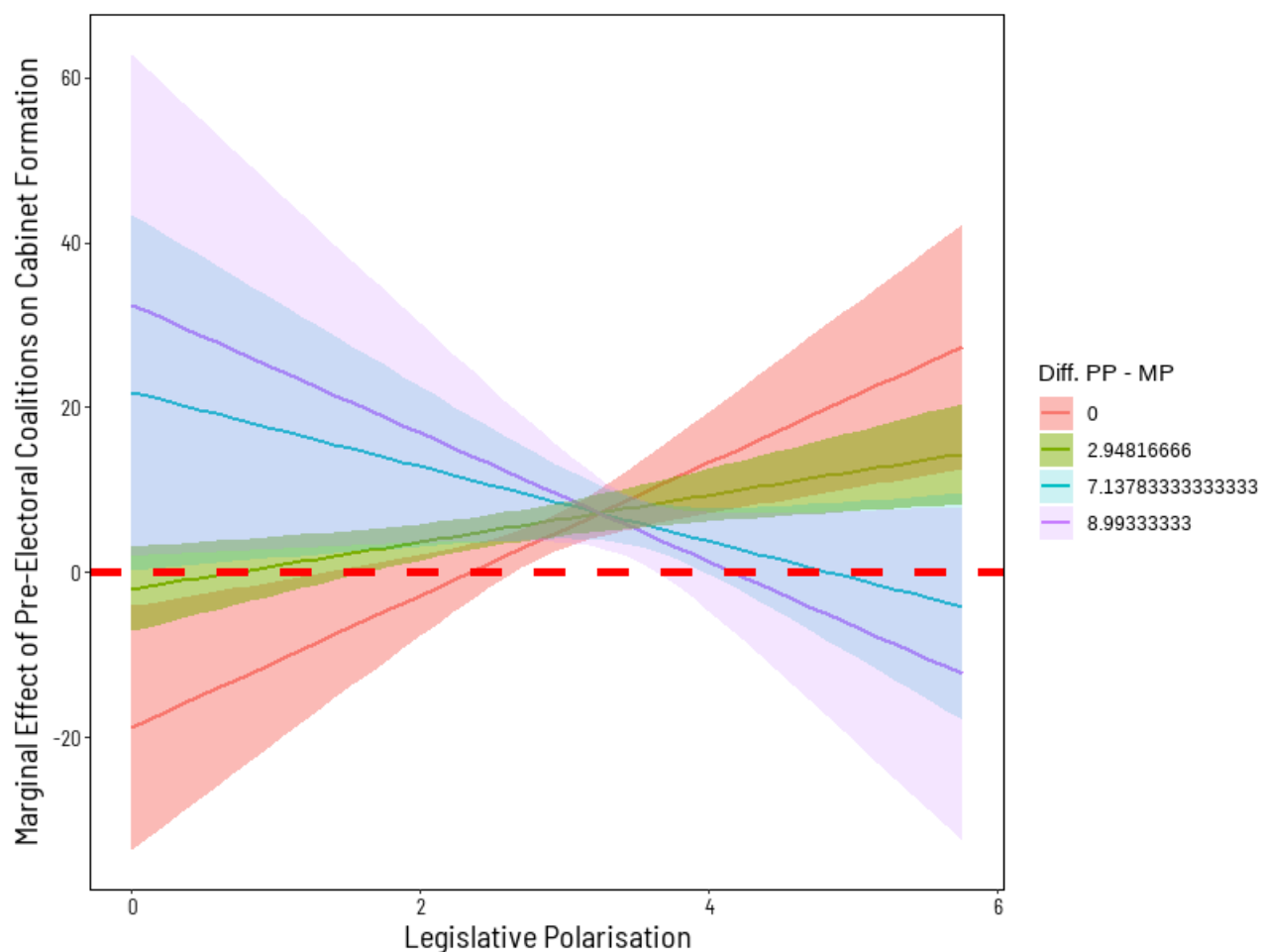
Table A.8: Three-way Interaction: PEC x Legislative Polarisation and Ideological Distance

	Model 1
Minority	-1.411*** (0.343)
Number of Parties	-1.809*** (0.172)
Ideological Division	-0.186*** (0.058)
Median Party	1.281*** (0.341)
Extreme Parties	0.295 (0.511)
Runner-up Party	-1.587*** (0.428)
Pre-Electoral Coalition (PEC)	-18.766** (7.517)
PEC * Legislative Polarisation	8.031*** (2.598)
PEC * Diff. PP - MP	5.697** (2.483)
PEC * Leg. Polar. * Diff. PP - MP	-1.758** (0.754)
Cabinets	102
Number of Alternative Cabinets	139,032
Log Likelihood	-234.455

Note: Minority presidents only *p<0.1; **p<0.05; ***p<0.01

In reverse order, we first see that the impact of pre-electoral coalitions on government formation increases as the legislative polarisation grows in strength at low levels of ideological difference between the presidential party and the median party. Specifically, this

Figure A.3: Three-way Interaction: PEC x Legislative Polarisation x Ideological Distance between the presidential party and the median party



Note: In this example, the ideological scale runs from 0 to 20. Of note this difference represents the absolute distance between presidential and median parties, as the direction of this difference is of no particular importance here.

can be seen in the red and green solid lines and their respective confidence intervals, which show the estimated behaviour when the difference between these parties is, respectively, 0 and 2.94. As such, this reinforces the paper’s findings by telling us that more moderate presidents are increasingly willing to count on their pre-electoral partners as legislative polarisation deepens.

This trend is apparently bucked when the president’s party is located far away from the median party, as demonstrated by the blue and purple solid lines and confidence intervals. In Figure A.3, the estimated effect of pre-electoral coalitions appears to diminish as legislative polarisation increases. However, this result is, above all, an artefact of the estimation procedure. This happens as only three governments have an ideological

distance between the *formateur* party and the median party above 7.13, and, at the same time, were preceded by pre-electoral coalitions. These cases are Brazil in 2014, Panama in 1994, and Venezuela in 1999 - substantively, all of which formed coalition cabinets derived from pre-election arrangements.

Hence, this test reveals that while moderate presidents and their parties largely follow the argument elaborated in the main text, not much can be said about the behaviour of extremist presidents. Surely, further scrutiny of their behaviour in government formation opportunities is a promising avenue for future research.

Turning the attention to another test, past empirical research on pre-electoral coalitions in presidentialism has examined whether presidents' institutional powers are of great relevance to the topic (Albala, 2021; Borges et al., 2021). Given that powerful presidents could be more reluctant to adhere to their pre-electoral promises, the fact that presidential powers could distort the relationship presented in the main texts deserves further exploration.

Unlike past scholarship, I make the case of employing the presidential power scores developed by Doyle and Elgie (2016). Often, the body of research interested in executive-legislative relations in presidential democracies condenses presidential powers into two metrics: decree and veto powers. In short, the former captures the powers granted to presidents to unilaterally change legislation at their will, whereas the latter indicates to what extent presidents can stymie the policy-making process from producing legislative outcomes contrary to their will and/or the size of the legislative majority needed in assemblies to reverse such a power. The key point is that the presidents' formal executive authority is not reducible only to these two tools. For instance, in some democracies, presidents need not the legislature's support to appoint and dismiss cabinet ministers (Araújo et al., 2016). We should, thus, keep in mind that presidential prerogatives such as this are not captured by looking exclusively at the presidents' extent of decree and veto powers.

Against this backdrop, the main advantage of the scores provided by Doyle and Elgie

(2016) is that they represent an overarching measure of presidential powers. That is, their measure does not come with an explicit emphasis on some presidential prerogatives at the expense of others. Below, Table A.9 and Figure A.4 inspect whether constitutionally empowered presidents have deviant behaviour vis-à-vis their counterparts with less extensive prerogatives when it comes to the hypothesised connection between pre-electoral coalitions and legislative polarisation.

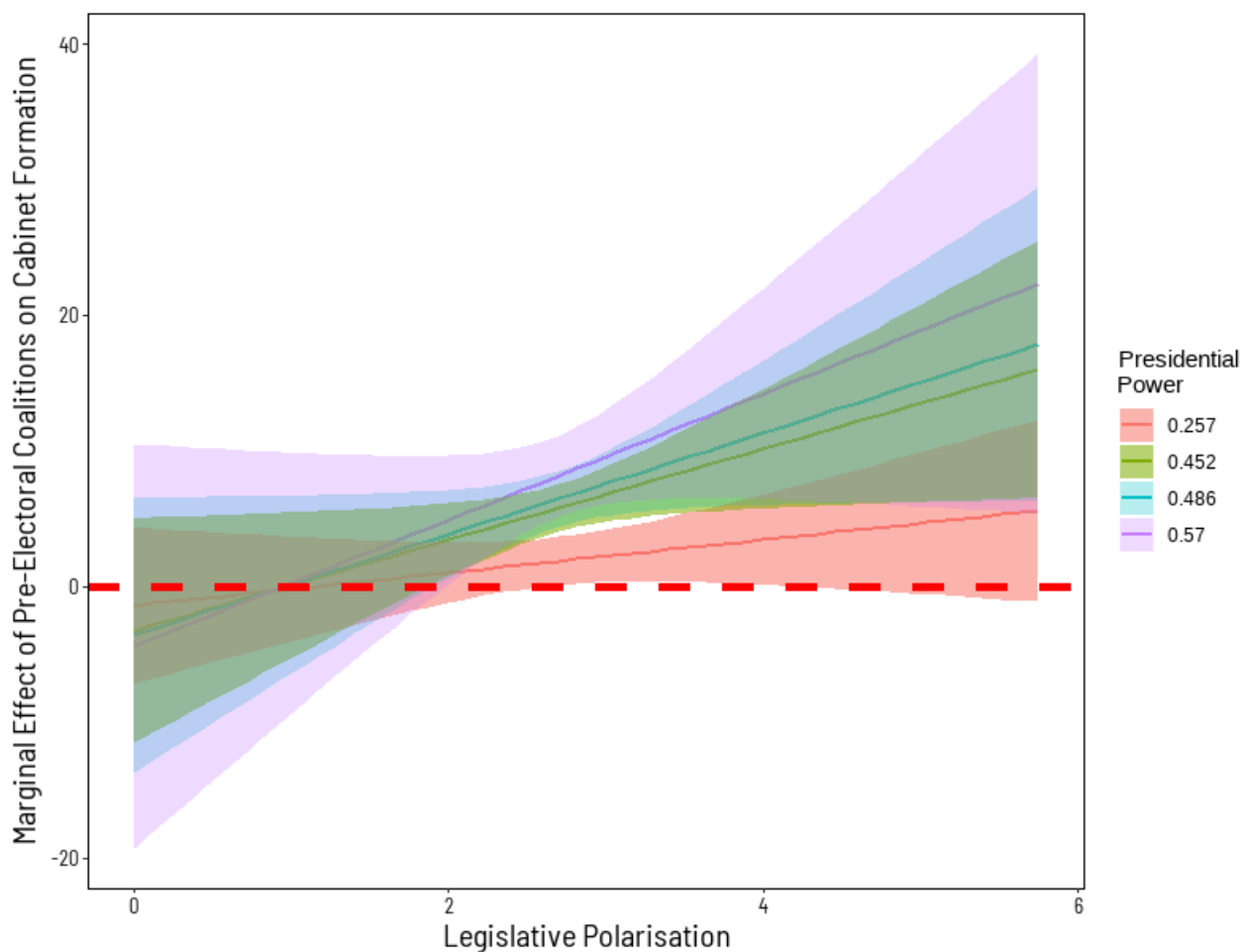
Table A.9: Three-way Interaction: PEC x Legislative Polarisation and Pres. Pow.

	Model 1
Minority	-1.273*** (0.341)
Number of Parties	-1.861*** (0.169)
Ideological Division	-0.150*** (0.056)
Median Party	1.357*** (0.331)
Extreme Parties	0.268 (0.513)
Runner-up Party	-1.294*** (0.398)
Pre-Electoral Coalition (PEC)	1.090 (10.215)
PEC * Legislative Polarisation	-1.610 (3.712)
PEC * Presidential Power	-9.608 (30.469)
PEC * Leg. Polar. * Pres. Power	10.992 (11.106)
Cabinets	104
Number of Alternative Cabinets	147,736
Log Likelihood	-243.804

Note: Minority presidents only *p<0.1; **p<0.05; ***p<0.01

Despite the lack of statistical significance for the interactions in Table A.9, the only meaningful deviation is found in Figure A.4. In it, we visualise that for presidents with less extensive constitutional powers, the effect of pre-electoral coalitions on government formation is not distinguishable from zero across most observed values of legislative polarisation. More importantly for the test at hand, though, constitutionally powerful

Figure A.4: Three-way Interaction: PEC x Legislative Polarisation x Pres. Pow.



presidents do not drop their pre-electoral coalition partners from their multiparty alliance once their term in office is inaugurated at a higher rate than their counterparts. Actually, the depicted pattern follows the one discussed at length in the main text: pre-electoral coalitions increasingly influence government formation processes as legislative polarisation toughens up, which is also valid for constitutionally powerful presidents.

Finally, the conditional logit models have a particularity of being fixed-effect models, thereby soaking up all countries' features that remain constant over time. This entails two consequences. First, as the estimation is based on fixed effects, there is no need to control for country when employing conditional logit models. Second, and perhaps unexpectedly, differences in the number of alternative coalitions provided for each country are unproblematic insofar as country units do not bias the results. This last consequence is of particular interest as countries starkly differ from one another with regard to the

number of potential coalitions. Thus, I examine whether a particular country heavily influences the results by re-running the regressions excluding one country at a time.

Table A.10: Iterative exclusion of countries

	Without Argentina	Without Bolivia	Without Brazil	Without Chile	Without Colombia	Without Costa Rica	Without Dom. Rep.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Minority	-1.776*** (0.375)	-1.195*** (0.357)	-1.381*** (0.374)	-1.364*** (0.342)	-1.341*** (0.344)	-1.480*** (0.355)	-1.331*** (0.343)
Number of Parties	-1.585*** (0.172)	-1.879*** (0.178)	-2.301*** (0.214)	-1.829*** (0.167)	-1.772*** (0.176)	-1.796*** (0.171)	-1.787*** (0.166)
Ideological Division	-0.255*** (0.062)	-0.190*** (0.063)	-0.095 (0.062)	-0.146*** (0.056)	-0.195*** (0.059)	-0.174*** (0.059)	-0.209*** (0.060)
Median Party	1.090*** (0.351)	1.320*** (0.346)	1.545*** (0.357)	1.331*** (0.332)	1.151*** (0.349)	1.313*** (0.340)	1.496*** (0.336)
Extreme Parties	-0.018 (0.552)	0.478 (0.529)	-0.662 (0.804)	0.265 (0.504)	0.465 (0.515)	0.226 (0.511)	0.299 (0.513)
Runner-up Party	-1.387*** (0.411)	-1.085*** (0.405)	-1.099*** (0.415)	-1.348*** (0.400)	-1.721*** (0.461)	-1.397*** (0.414)	-1.357*** (0.419)
Pre-Electoral Coalition (PEC)	-0.993 (2.564)	-5.950** (2.799)	-2.609 (1.948)	-2.370 (1.887)	-2.019 (1.854)	-2.679 (1.898)	-2.673 (1.914)
PEC * Legislative Polarisation	2.004** (0.841)	4.479*** (1.152)	2.882*** (0.689)	2.299*** (0.667)	2.320*** (0.648)	2.619*** (0.668)	2.637*** (0.674)
Cabinets	88	98	94	95	97	94	97
Number of Alternative Cabinets	134,680	141,336	38,680	146,712	136,980	146,856	147,704
Log Likelihood	-216.374	-215.570	-180.570	-243.511	-225.783	-230.715	-241.811

Note:

*p<0.1; **p<0.05; ***p<0.01

Table A.10: Cont.

	Without El Salvador	Without Honduras	Without Nicaragua	Without Panama	Without Uruguay	Without Venezuela
	(8)	(9)	(10)	(11)	(12)	(13)
Minority	-1.507*** (0.355)	-1.528*** (0.343)	-1.343*** (0.338)	-1.275*** (0.344)	-1.267*** (0.340)	-1.478*** (0.342)
Number of Parties	-1.780*** (0.169)	-1.808*** (0.164)	-1.766*** (0.165)	-1.763*** (0.168)	-1.875*** (0.170)	-1.773*** (0.165)
Ideological Division	-0.166*** (0.062)	-0.169*** (0.056)	-0.192*** (0.058)	-0.162*** (0.057)	-0.140** (0.057)	-0.185*** (0.057)
Median Party	1.637*** (0.380)	1.227*** (0.331)	1.327*** (0.329)	1.215*** (0.340)	1.369*** (0.339)	1.287*** (0.330)
Extreme Parties	0.290 (0.521)	0.214 (0.509)	0.224 (0.509)	0.307 (0.542)	0.243 (0.510)	0.299 (0.509)
Runner-up Party	-1.564*** (0.439)	-1.384*** (0.399)	-1.351*** (0.400)	-1.447*** (0.422)	-1.627*** (0.444)	-1.362*** (0.398)
Pre-Electoral Coalition (PEC)	-2.694 (1.921)	-2.676 (1.893)	-2.677 (1.896)	-4.318** (2.122)	-2.701 (1.914)	-1.928 (2.038)
PEC * Legislative Polarisation	2.580*** (0.673)	2.623*** (0.665)	2.625*** (0.668)	3.198*** (0.777)	2.693*** (0.675)	2.352*** (0.689)
Cabinets	88	99	102	97	99	100
Number of Alternative Cabinets	147,188	147,672	147,216	143,248	147,640	146,920
Log Likelihood	-230.939	-247.891	-248.252	-239.702	-239.096	-245.926

Note:

*p<0.1; **p<0.05; ***p<0.01

Overall, the robustness checks yield essentially the same results as compared to those from the original models. More remarkably, the interaction between pre-electoral coalitions and legislative polarisation practically never loses statistical significance and, in fact, in some models, has a more pronounced coefficient than what was previously registered. Thus, the findings are consistent across different specifications.

Notes

1. The Uruguayan party system is much more complex than the one depicted here. The Uruguayan political parties are composed of several disparate factions. Following the comparative literature on Latin America, I refer to political parties *per se* instead of focusing on their intra-party dimension.
2. In presidential democracies, the number of potential governments is given by the formula 2^n , where n is the number of parties excluding the president's party. In their parliamentary counterparts, the number of potential governments is calculated through $2^n - 1$, where n is the number of parties in the party system. This slight difference is due to the fact that the *formateur* cannot be any other party than the president's party in presidentialism, whereas any party can be the *formateur* in parliamentarism.
3. Initially, some tests did not converge due to their small sample size. This is not surprising, though. After all, all soundness tests in this battery inevitably involve reducing the number of cabinets under study to some extent. To circumvent this issue, some models were estimated on data encompassing not only government formation bargaining processes following presidential and legislative elections but reshuffled cabinets as well. If anything, their inclusion in the analysis should bias against my findings, as presidential cabinets based on pre-electoral coalitions tend to be more durable (Albala et al., 2023) and, as a result, do not lead to as many reshuffles as their counterparts not based on any version of pre-electoral pacts. In any case, even if this work's conditional theory does not pertain to the domain of cabinet reshuffles, their inclusion is necessary to make some models possible (e.g., Model 6, Model 9, and Model 10 in Table A.5).
4. The dataset is available on <https://sites.duke.edu/democracylinkage/data/>.
5. I thank an anonymous reviewer for raising this point.

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