A R T I C L E

Oversized Government Coalitions in Latin America*

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Research on executive-legislative relations in presidential systems have emphasized how presidents use cabinet appointments to form and manage government coalitions in the absence of majority legislative support. Yet not all coalitions are similar, as some are larger and, consequently, more prone to agency and coordination problems than others. But what shapes presidents' decision to include more parties in their coalitions? While several hypotheses exist in the literature, few have been tested in a systematic fashion, none focusing on why surplus coalitions form. This article intends to fill this gap by examining an original time-series cross-sectional dataset comprising 168 unique coalitions in all 18 Latin American presidential countries since 1979. In particular, I find that highly fragmented party systems and presidents with great legislative powers are more likely to generate oversized government coalitions. An additional analysis, with monthly data from Brazilian cabinets between 1989 and 2010, also shows that supermajority rules and bicameralism dynamics play a role in the occurrence of surplus coalitions, but party discipline and presidential approval do not.

Keywords: Government coalitions; Presidentialism; Executive-Legislative relations; Latin America.

When their own party lacks a majority in the legislature, presidents may include other parties in their cabinets to form government coalitions and widen their bases of support. With the sharing of executive power, coalition parties begin to work together to approve a common legislative agenda and govern. This is a central aspect emphasized in the literature that sees inter-institutional cooperation as the key to explaining the 'unexpected success' of multiparty presidential systems (CHAISTY et al., 2014; MELO and PEREIRA, 2013; POWER, 2010; RAILE et al., 2011). However, this explanation contains at least one glaring omission: presidents frequently include more parties in their governments than necessary to obtain a majority. While the different strategies used by presidents to manage their coalitions have received some attention in the literature, the factors incentivizing them to include a higher number of parties in their cabinets in the first place have not been afforded the same treatment.

This neglect is striking because oversized coalitions – i.e. those containing more parties than needed to obtain a majority in congress – can entail a series of problems for presidents. Firstly, as Riker (1962) demonstrated, the higher the number of members in a coalition, the fewer the posts and resources available to each party. Were these parties to seek to maximize the latter, therefore, only minimal winning coalitions would emerge. Secondly, coordination problems tend to increase in large coalitions, since, if the parties try to get their electoral platforms approved, a larger number of them becoming involved in the formulation of the government agenda can hinder agreements from being made and maintained (AXELROD, 1970). Finally, it becomes more difficult to monitor the actions of coalition members, especially when each party uses its ministries to obtain advantages at the cost of the rest (MARTIN and VANBERG, 2011; MARTINEZ-GALLARDO and SCHLEITER, 2015). Considering the frequency with which they occur[1], therefore, the question arises: why do presidents propose, and parties agree to join, oversized coalitions?

In this article, I offer some replies to this question. Using data that covers all the 18 presidential countries of Latin America after the third wave of democratization, I test some of the main hypotheses in the literature on the formation of oversized coalitions, inspired primarily by the literature on parliamentarism. This literature emphasizes

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[1] Figueiredo et al. (2012, p. 847) report that more than 35% of governments in Latin America between 1979 and 2011 were supermajoritarian.

the incentives that parties and heads of government have to form and join this type of coalition, as two motivational premises suggest: 01. the supposition that the actions of parties in the government arena will be geared towards maximizing votes in the elections and that, consequently, they will try to form large coalitions when they anticipate obtaining electoral benefits from doing so (*vote-seeker*); and 02. the supposition that the implementation of a legislative agenda is their principal objective in government, which may sometimes persuade them to form large coalitions, especially when there is a risk of defections from the government coalition. In addition, I also investigate the effect of a number of institutional factors on coalition size, such as the existence of qualified majority voting and bicameralism. The article's main contribution, therefore, is to offer a preliminary examination of this kind of coalition in presidential systems, taking into consideration both motivational premises and institutional variations in its explanation of the phenomenon.

The findings corroborate some of the tested hypotheses. In particular, greater legislative uncertainty, measured by party fragmentation, makes the emergence of oversized coalitions more likely: with many parties in congress, oversized cabinets can avoid defections from preventing approval of the government agenda, which is why situations with high levels of party fragmentation seem to encourage the formation of this kind of coalition. Presidents at the start of their mandate, or those experiencing low inflation rates, also show a higher probability of forming oversized coalitions. However, the main explanatory factor found for their occurrence seems to be the legislative power of presidents – corroborating the literature that sees legislatively strong presidents as the most likely to run multiparty cabinets.

To explore these findings in more detail, in the second part of the article I analyse the determining factors in the occurrence of oversized coalitions in Brazil, spanning from 1989 to 2010, using a sample containing monthly information on the cabinets over the period. The principal advantage of this design is that it allows me to investigate the effect of other variables, as well as keep constant omitted institutional and contextual factors that do not vary over time. As well as providing support to the previous findings, the results of this analysis also indicate that a legislative agenda with proposals that require a qualified majority to be approved and differences in the number of seats controlled by the government in the Chamber of Deputies and the Senate increase the likelihood of oversized coalitions being formed. On the other hand,

party discipline and presidential popularity do not seem to have an effect on the occurrence of this kind of coalition.

The remainder of the article is organised as follows. In the next section I review studies that have examined variations in types of multiparty governments in parliamentary and presidential systems. In the third section, I introduce the hypotheses to be tested concerning the determining factors behind oversized coalitions in Latin America and present the methods and data used. Finally, in the fourth section I present the results of the comparative analysis and the Brazilian case, prior to my conclusions.

Size of government coalitions in a comparative perspective

Oversized coalitions in parliamentary systems

Government coalitions are common in parliamentary systems. According to the literature, the reason lies in the incentives generated by the executive's dependence on the legislature, which leads to the prime minister's party seeking to share ministries with other parties when it lacks a majority to govern alone (LAVER and SHEPSLE, 1996, p. 03). But if obtaining a majority can assure implementation of the government's agenda, it remains unclear why coalitions with more parties so frequently emerge – around 22% of multiparty cabinets formed between 1945 and 1999 in 17 European countries had at least one party that could be removed without the government losing its majority status, according to Strøm and Nyblade (2007).

The earliest formulation of this debate is well-known. Politicians look to obtain government positions, which are both scarce and exclusive, and to this end form a majority in the legislature to control the government. Among all the different coalitions that would allow them to do so, the optimal is the one with the fewest members, the Minimum Winning Coalition (MWC) (RIKER, 1962). From the viewpoint of the politicians, this is advantageous since it minimizes the number of people with whom they have to share posts. Since all of them face the same situation, and insofar as all of them are presumed to have perfect information, cooperation prospers and minimal coalitions, able though to meet the criterion of majority decision-making, will emerge. Despite its simplicity, the main problem with this model is its inability to explain why coalitions formed in Europe are frequently smaller or larger than predicted.

Although varied, the main explanations proposed to account for this paradox share one point in common: they all emphasize that the occupation of posts can be

compensated, or even replaced, by the implementation of policy agenda (LAVER and SCHOFIELD, 1998; STRØM and NYBLADE, 2007; VOLDEN and CARRUBBA, 2004). One initial explanation for this fact is that coalition members seek to reduce the conflicts between themselves. Given that it is not always possible to reach an agreement in any bargaining procedure – whether due to mutual distrust, a lack of information, or so on – two parties in coalition may also include other parties located between them on the ideological spectrum in order to mitigate this problem, producing larger coalitions than the MWC. This applies, for example, to the Italian government coalitions formed after 1981, which included smaller parties ideologically located between the more right-wing Democrazia Cristiana (DC) party and the more left-wing Partito Socialista (PS) (LAVER and SCHOFIELD, 1998, pp. 83-84). Keeping the cabinet intact thereby becomes easier since the new member assumes the median position in the coalition, precluding this role from negotiation (AXELROD, 1970). In the case of minority coalitions, the seminal explanation proposed by Strøm (1990) is even simpler: an opposition party can benefit from government policies even outside the government and would therefore have no incentive to bring it down. In this case, the existence by itself of a government coalition, defined by all the parties occupying ministerial posts, would not necessarily translate into a legislative coalition.

This presupposition suggests that the size of a coalition is not solely a result of the need to obtain a majority. Rather the incentives for the formateur (the party or politician responsible for forming a coalition) to include more or less parties in the new cabinet may stem from other factors. As an example, later studies sought to incorporate intra-coalition bargaining costs and the legislative uncertainty of the parties as determining factors in the formation of oversized coalitions (STRØM and NYBLADE, 2007). In these cases, it is not the existence of a formal majority that is in question, but the government's capacity to fulfil specific objectives, such as guaranteeing legislative support for its policy agenda.

In terms of the influence of congressional uncertainty on the size of coalitions, formateurs may find it advantageous to form oversized cabinets in situations where intra-coalition conflicts can be exploited: if the coalition includes a pivotal party with which the cost of any deal is high, the addition of another party can make the presence of the former superfluous, rendering any threat to defection ineffective (LAVER and SCHOFIELD, 1998, p. 82; STRØM and NYBLADE, 2007, p. 795; VOLDEN and CARRUBBA,

2004, pp. 525-526). In situations where uncertainty exists over the position of the other parties with high party fragmentation and polarization, this strategy would come to the fore, since the risks are greater of inter-party agreements being broken. Consequently, the premise of treating parties as single actors, commonplace in the literature, might lead to mistaken conclusions about the coalition formation process.

As well as approval of an agenda, obtaining votes can also influence coalition formation, altering the incentives of parties to accept ministerial positions, depending on their capacity to influence public policies once in government or in opposition (STRØM, 1990, pp. 42-43). When the coalition government is popular, joining it can improve a party's future electoral performance. Likewise, where the executive's agenda-setting powers are broad and those of the legislative narrow, parties may be more able to implement their electoral promises and transfer resources to their voters by participating in government. At the other extreme, forming part of the executive may erode a party's support, especially when it needs to back measures unpopular with its electorate. Consequently the anticipated benefits and costs of joining a coalition can incentivize more or fewer parties to take part – even though, ultimately, the decision to include a party or not belongs to the formateur.

According to this literature, therefore, programmatic and electoral motives can influence the size of a coalition. However this does not occur in an institutional vacuum. A set of rules structures the cabinet formation process in parliamentary systems, determining the strategies adopted by each party. The existence of two legislative houses or the need for qualified majority votes to approve particular bills are the main institutional factors identified in the literature as incentives for the formation of oversized coalitions (DRUCKMAN et al., 2005; LAVER and SCHOFIELD, 1998).

While, for example, any bill will pass in a unicameral congress if it is backed by a majority of the house, in a bicameral congress there is still a chance that the second house will reject the bill, at least in cases where both have to approve it. What this suggests, therefore, is that the need to secure a majority in the upper house will be taken into account when forming a coalition government. In other words, governments may add extra parties to the coalition in the lower house in order to obtain a majority in the upper house (DRUCKMAN et al., 2005; VOLDEN and CARRUBBA, 2004, p. 526). Similarly, although simple or absolute majorities are normally sufficient for approval of ordinary legislation, some bills require qualified majorities in some congresses. Again this rule

may also prompt governments with reformist programs to form oversized coalitions (LAVER and SCHOFIELD, 1998, p. 82).

Oversized coalitions in presidential systems

Until recently, the literature on presidential systems was almost unanimous in claiming that coalition governments are unlikely to form. Two main arguments supported this conclusion. The first is that presidents, legitimized by a majority of voters, do not depend on the support of the legislature to stay in power. This is the essence of the 'winner-takes-all' dynamic supposedly inherent to presidentialism (LINZ, 1990; LINZ and VALENZUELA, 1994; RIGGS, 1988). The second argument, developed by another generation of comparatists, is that certain institutional features common to Latin American presidential systems curb the emergence of coalitions (MAINWARING, 1993; SHUGART and CAREY, 1992; STEPAN and SKACH, 1993). Proportional representation for elections to the legislature make it fairly likely that the president's party will fail to hold a majority in congress; open electoral lists, on the other hand, create incentives for the personalization and regionalization of electoral campaigns, weakening the cohesion of political parties and making coalition formation more difficult. As a consequence, the region's presidents are seen to lack incentives to cooperate with congress, preferring to bypass them entirely or form ad hoc coalitions in the legislature (COX and MORGENSTERN, 2001; JONES, 1995).

Due to this presumed absence of cooperation between the executive and legislature, the first studies of the topic invariably attempted to investigate whether favourable conditions existed for the formation of multiparty cabinets. Some years after this debate was initiated, though, we now know that coalition governments are commonplace and that they assist in securing approval of the presidential agenda, reducing intergovernmental conflicts and supporting presidents caught in the middle of economic crises and protests (ÁLVAREZ and MARSTEINTREDET, 2010; CHEIBUB, 2007; CHEIBUB et al., 2004; HOCHSTETLER, 2006; NEGRETTO, 2006; PÉREZ-LIÑÁN, 2007). Yet despite these advances, apart from a few studies that have analysed the composition and stability of presidential cabinets comparatively (AMORIM NETO, 2006; FIGUEIREDO et al., 2012; MARTINEZ-GALLARDO, 2012), we still know little about the factors that explain the differences between the coalition governments formed.

In part, the size of coalition governments may be deemed to result exclusively from the decisions of presidents since they alone possess the prerogative to nominate ministers in presidential systems. In practice, however, the assembling of a multiparty cabinet involves the strategic interaction of diverse actors with different preferences and powers. In this sense, the formation of a coalition can be understood as a game in which presidents make proposals to potential partners, taking into account costs and the benefits of having them in government, along with the probability of their acceptance of the offer (CHEIBUB, 2007). If all actors are looking to implement policies and obtain posts, coalitions will emerge except when a president is so radical that no party would obtain an advantage by joining his or her cabinet, or when the president is located on the centre of the ideological spectrum and naturally occupies the point of convergence of the majority. In other words, although they are elected separately and very often wield considerable legislative powers, presidents do not arbitrarily choose how many parties will join their coalitions, since a series of incentives and constraints end up partially determining the process of assembling a multiparty cabinet.

The few studies on the theme consistently show that certain factors really influence the size of coalitions. Analysing 14 countries in Latin America where the party of the incumbent held a minority of seats, Figueiredo et al. (2012) find evidence that presidents with a line-item veto and whose vetoes are difficult to overturn have a higher chance of forming minority coalitions. On the other hand, fragmented legislatures and the effects of the electoral cycle shrink these probabilities. Employing time-series analyses, both Raile et al. (2011) and Acosta and Polga-Hecimovich (2011) show that in Brazil and Ecuador, respectively, the strategic use of parliamentary amendments can compensate for the cooperation of coalition members and prevent the loss of congressional support. However, other studies suggest that rather than cooperating, presidents can use their legislative powers to bypass congress: presidents who have the prerogative to issue legislative decrees, for instance, tend to distribute proportionally fewer ministerial positions to their coalition partners and tend to have smaller and more unstable coalitions (AMORIM NETO, 2006; FIGUEIREDO et al., 2012; MARTINEZ-GALLARDO, 2012).

As we can see from these findings, the size of coalition governments in presidential systems is still little studied. In the remainder of the article, I look to

contribute precisely to this literature, exploring the factors that contribute to the occurrence of oversized coalitions in Latin America.

Research design

Hypotheses

In this section I present a number of hypotheses to explain the formation of oversized coalitions in presidential systems, based on the literature discussed above. In particular, these works suggests that their formation results both from the motivations of government and party leaders, and from the rules that structure how governments are assembled and the legislature functions. Many of these hypotheses are mutually contradictory, however – which ultimately can only be resolved empirically. Another problem is the adaptation of hypotheses made on the basis of parliamentarianism to presidentialism, since the coalition formation process differs in the two systems. Following on from other studies (ALEMAN and TSEBELIS, 2011; FIGUEIREDO et al. 2012; MARTINEZ-GALLARDO, 2012), I incorporate these hypotheses only when they are theoretically consistent.

Policy-seeking

The first set of hypotheses concerns the policy-related motives of presidents and parties. Though not ignoring the influence of other motivations, this premise suggests that parties primarily work to ensure adoption of their legislative agendas. As a consequence, the principal factor considered is congressional uncertainty, which may incentivize presidents to include more parties than necessary to obtain a majority when a high risk exists of defections among coalition members, or of a lack of discipline within each party (POWER, 2010, p. 26; STRØM and NYBLADE, 2007).

One of the main indicators of uncertainty surrounding votes in congress is linked to the party system. Following this line of argument, the higher the level of party fragmentation, the more difficult it is for the coalition formateur to obtain information on the potential coalition members, since more time and effort will be needed to discover the position of each of them on all the subjects relevant to the government. Furthermore, conflicts can also arise if new issues appear on the public agendas or if some of the coalition members reveal preferences that diverge from those of the coalition median. In addition, even when few parties exist, the possibility remains that a lack of internal discipline can make the bases of the government's support uncertain. According to these arguments:

H1. Higher party fragmentation in the legislature incentivizes presidents to form oversized coalitions;

H2. Lower levels of internal party discipline incentivizes presidents to form oversized coalitions.

Connected to this hypothesis, high ideological polarization is presumed to have similar effects. In a highly polarized congress, the transaction costs between coalition members and the risk of defection increase. Anticipating these possibilities, presidents may assemble large coalitions to prevent the departure of one party from the executive from resulting in a loss of its majority support. So:

H3. The higher the polarization, the more likely oversized coalitions are to emerge.

Vote-seeking

According to the literature on coalition governments in presidential systems, the incentives for parties to remain in the government or defect to the opposition may directly affect the size of the coalition (ALTMAN, 2000; MARTINEZ-GALLARDO, 2012; SHUGART and CAREY, 1992). The president's popularity and the time remaining to the next elections change the incentives that the other parties have to cooperate: when the president's poll ratings plummet or when the elections are close, switching to the opposition may be a good strategy to gain votes. Conversely, popular presidents may persuade opposition parties to join the executive, both as a form of claiming credit for policies implemented by the government and to associate themselves with the figure of the president. This suggests that:

H4. The more popular a president is, the more likely oversized coalitions are to emerge;

H5. The longer the time left to the elections, the more likely oversized coalitions are to emerge.

Institutions

The motivations and preferences of parties and presidents alone do not explain coalition size since their formation depends on the institutional context in which they emerge. As we saw earlier, at least two institutions are fundamental to understanding variations in coalition size: bicameralism and qualified majority rules.

The explanation for how the existence of two legislative houses affects coalition size is direct: if the government lacks the majority needed to approve its law bills in one of the houses, it may become necessary to include more parties in the executive, which will spare it

from having to form ad hoc legislative coalitions (DRUCKMAN et al., 2005). Consequently, depending on the size of the original coalition in the lower house, the inclusion of one or more additional parties can make it become oversized. Hence:

H6. In bicameral countries, the probability of oversized coalitions emerging is higher.

In the case of required majorities, presidents faced by the need to obtain qualified majorities to approve their legislative programs – the case of structural and institutional reforms – may include as many parties in the coalition as necessary to meet this objective (LAVER and SCHOFIELD, 1998, p. 82). The central idea here is that the larger the majority needed to approve reforms and the more important these are for the presidential agenda, the more likely oversized coalitions are to emerge.

H7. In countries with qualified majority rules, the probability of oversized coalitions emerging is higher.

Evidently, these hypotheses are just some of the possible institutional explanations for the phenomenon. As other studies suggest, certain configurations encourage presidents to govern unilaterally, including fewer parties in their coalition and thus reducing the likelihood of oversized coalitions being formed (ALVAREZ and MARSTEITREDET, 2010; AMORIM NETO, 2006; COX and MORGENSTERN, 2001; SHUGART and CAREY, 1992). According to these studies, the probability of presidential unilateralism occurring increases with the strategic use of legislative decrees and emergency bills to control the congressional agenda, which can provide presidents with effective means of bypassing the ordinary legislative process.

Taking a somewhat different approach, other studies argue that greater legislative powers provide presidents with the tools to coordinate their coalitions, facilitating horizontal bargaining (PEREIRA et al., 2005). The classic example here is France's Fifth Republic where the prerogatives of combining diverse proposals for simultaneous voting, while also posing restrictions on amendments, prevent member parties of the coalition government from reneging on prior agreements and reduce legislative defeats for the government over the long-term (HUBER, 1996). According to this perspective, therefore, the higher concentration of agenda-setting powers in the executive helps sustain multiparty cabinets. These two contrasting views provide sufficient reasons for analysing the legislative powers of presidents in the explanation of the emergence of oversized coalitions.

In summary, the rules that structure the formation of governments, the legislative process and party motivations can encourage the emergence of oversized coalitions. If the aim

of these parties is to seek approval for their legislative programs, this kind of coalition will be advantageous in situations where a high level of congressional uncertainty exists and/or where the costs of interparty negotiations are high. On the other hand, anticipation of the future election scenario can make it attractive to parties either to join the government or to go into opposition, which can also influence the size of the coalitions formed. Finally, depending on the institutional framework, oversized coalitions can help ensure the government's legislative success.

Data and methods

Firstly I shall examine the determining factors behind oversized coalition governments using a database containing information on 168 unique cabinets[2] in all the 18 presidential countries in Latin America[3]. The data covers the period from 1979 to 2012, totalling 439 observations in the country-year format. As well as the advantage of an increase in the sample size and variation in the predictors, the inclusion of Central American countries allows me to test hypotheses within a wider context.

Dependent variable

Before classifying the coalitions by size, we need to define what a coalition government is. Following the specialized literature (AMORIM NETO, 2006; FIGUEIREDO et al., 2012; MARTINEZ-GALLARDO, 2012), the criteria utilized in the present study to identify them is the party affiliation of the ministers of the principal ministerial portfolios in each country, taking into account that ministers are not always recruited due to their connections or their congressional influence, and that in some cases they are not recognized by their parties as legitimate representatives of the same[4]. This aim in mind, I consulted several specialists in some of the countries included in the sample and another three databases on

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[2] Unique cabinets are those in which the party composition remained constant during a determined period, both coalition and single party governments.

[3] These countries are: Argentina (1983-2012), Bolivia (1982-2012), Brazil (1985-2012), Chile (1990-2012), Colombia (1978-2012), Costa Rica (1978-2012), El Salvador (1994-2012), Ecuador (1979-1995, 1997-2005), Guatemala (1996-2011), Honduras (1982-2008, 2010-2012), Mexico (1988-2011), Nicaragua (1997-2006), Panama (1991-2008), Paraguay (1993-1997, 1999-2011), Peru (1980-2008), Dominican Republic (1996-2009), Uruguay (1985-2012) and Venezuela (1979-2001).

[4] The data used as a base were kindly provided to me by Octavio Amorim Neto and Cecília Martinez-Gallardo, complemented by the CIA World Leaders reports, searches on Lexis Nexis Academics and data from Cheibub (2007), Chasquetti (2001) and Saez and Montero (2008).

coalition governments to check each observation[5]. Whenever the original data diverged from the information obtained from other databases, the final classification of the specialists was adopted. Next, the number of parties and seats of each coalition were compiled based on the corrected party composition of each cabinet [6].

The existence of oversized coalitions was measured in two forms. First through a dichotomous variable given the value 01 whenever at least one of the coalition members could be removed without loss of a majority in the lower house. This is the conventional operationalization of surplus coalitions (CROMBEZ, 1996; MARTINEZ-GALLARDO, 2012; VOLDEN and CARRUBBA, 2004). Graph 01 shows the distribution of this variable in the sample over time and by country. In order to capture greater variation and test the robustness of the results, a second variable counts the number of parties that could be removed without the coalition losing its majority status.

Graph 01. The distribution of oversized coalitions
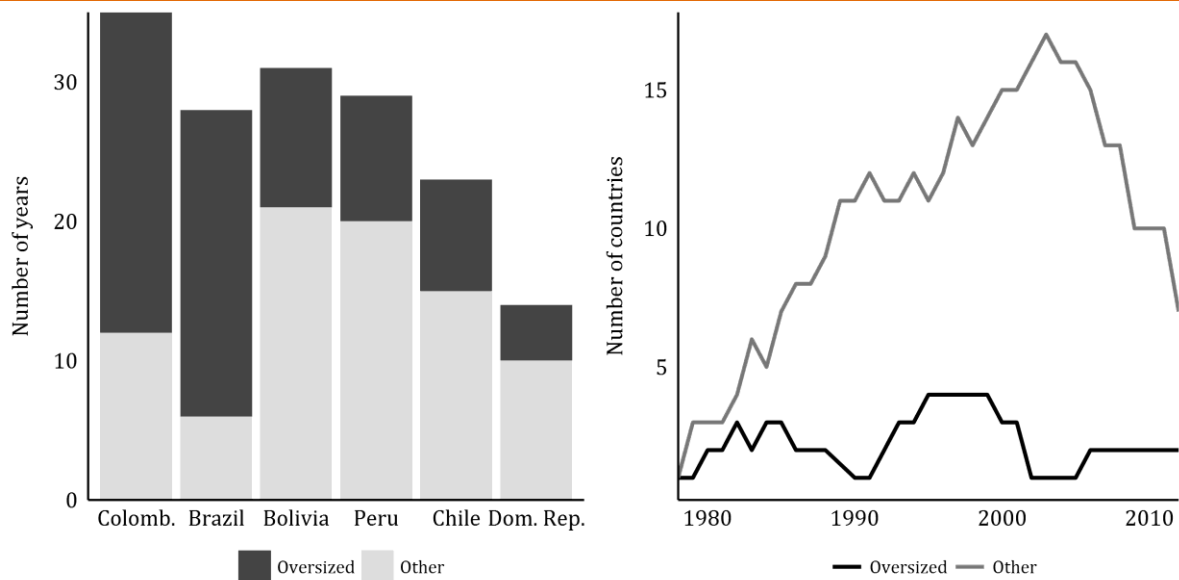
Sources: Dataset_Meireles. Available at bpsr.org.br/files/archives/Dataset_Meireles.

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[5] The specialists consulted were: Ivana Deheza (Bolivia); Felipe Botero (Colombia); Evelyn Villareal Fernandez and Jorge Cullel (Costa Rica); Alvaro Artiga and Nivaria Ortega (El Salvador); Eduardo Dargent and Paula Chirinos (Peru); and Rosario Espinal (Dominican Republic).
[6] The percentages of seats held by each party in each country were obtained from the Political Database of the Americas at Georgetown University and the Observatório del Poder Legislativo em América Latina at the University of Salamanca.

Independent variables

I operationalized the variables related to the policy-seeker perspective in the following way. First, I measured party fragmentation through the standard 'Effective Number of Parliamentary Parties' index, which is equal to the inverse of the sum of squared seat shares of each party, i.e.:

$$ENPP = (\textstyle\sum_{i=1}^{n} P_i^2)^{-1}$$

where P_i is the percentage of seats of party i. In order to determine the effect of the distribution of ideological preferences, I classified each party with more than 05% of seats in the congress of each country for each year in a scale ranging from 01 to 05, from left-wing to right-wing, taken from Coppedge (1997). Next, I centred this variable (by subtracting its mean) and calculated these scores based on the percentage of seats held by the parties. 'Polarization in congress' is simply the standard deviation of the distribution of these preferences in each country-year and measures the degree of polarization in a given congress. In addition, I also calculated the 'extremism of the president', which indicates the president's ideological distance from the congress average – this control is necessary since a greater ideological gap between the president and his or her base can produce larger conflicts. The operationalization of this variable is equal to the position of the president's party less the average of the positions of all the other parties, squared, i.e. $(p_1 - \bar{p})^2$, divided by the sum of the position of each party less the position of the same average, squared, i.e.:

$$Extremism = \frac{(p_1 - \bar{p})^2}{\sum_{i=2}^{n-1}(p_i - \bar{p})^2}$$

where p_i is the ideological position of the party i, and i = 1 indicates the president's party. This procedure is necessary to enable comparison of the scores between countries and years, since the distance of the president to the congress average depends on the position of all the parties: given an equally non-centrist president, increased polarization will leave him or her relatively closer to the centre. By contrast, less polarization will make him or her relatively more radical (CROMBEZ, 1996).

To test the effect of the time remaining for the mandate and presidential popularity, I used two variables. 'Electoral cycle' is equal to the time in years remaining for the mandate divided by the total period of the presidential mandate and serves to measure the effect of the electoral cycle on coalition size. This result also depends on the president's popularity since the decision to abandon the coalition is based on the usefulness of moving to the opposition (MARTINEZ-GALLARDO, 2012). Unfortunately, data on presidential approval is not available for all the countries analysed. As a proxy, though, I use the annual inflation rate logarithm from the 'World Development Indicators' reports by the World Bank[7]. The anticipated effect is simple: the higher inflation, the fewer incentives for opposition parties to join the government.

There are three main institutional variables. 'Qualified majority' is the proportion of seats necessary in the lower house for constitutional amendments to be approved. As argued previously, presidents with legislative agendas that include major reforms might be encouraged to form larger coalitions: if so, the status of the coalition will depend not only on the majority needed for approval of ordinary legislation, but also the majority required to approve this kind of legislation.

To evaluate the effect of the legislative powers of the presidents under study, I used an index developed by Negretto (2013) through principal components analysis (PCA). The index combines 14 categorical indicators of presidential power, such as the power of veto and the power to issue legislative decrees[8], and ranges from 01 to 100. The higher the values in this index, the stronger the president is legislatively. I tested the influence of bicameralism on the size of multiparty cabinets through a dummy, which is assigned the value 01 when two legislative houses exist. Though a simple indicator, it should be able to detect minimally a difference between bicameral and unicameral countries in terms of the size of their coalition cabinets.

Another potential explanation for the emergence of oversized coalitions, related to the policy-seeker approach, is that presidents add more parties to their coalitions in

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[7] Available at: http://data.worldbank.org/data-catalog/world-development-indicators. Accessed on January 28, 2015.

[8] The indicators making up this index are: majority necessary to defeat a presidential veto in congress; existence of jurisdictions where only the president can propose legislation; the possibility of congress increasing budget expenditure; a dummy indicating whether adoption of the president's budget proposal occurs if the congress rejects the budget; line-item veto powers; veto on the budget project, convoking extraordinary sessions in congress, requesting urgency for a project, issuing legislative decrees in exceptional circumstances, issuing legislative decrees and initiating referendums.

order to counter low levels of internal party discipline, a common phenomenon in some countries with presidential systems like Brazil (POWER, 2010, p. 26). One insurmountable reason, however, forces me not to explore this possibility at a comparative level: no data exists for the majority of countries analysed. Below, therefore, I do not directly consider the voting behaviour of congressional members, though I do test the effect of a proxy variable which indicates control over the formation of electoral lists (MARTINEZ-GALLARDO, 2012), varying from 0 (no control) to 02 (complete control). This strategy provides better guarantees that the findings reported are not due to omission of direct data on party discipline.

Finally, I have added some controls to the models. Although the centralization of formal powers in the hands of presidents confers them some advantages in the legislative process, I also consider the powers of the congresses themselves using 'Polcon 03', an index that assigns values ranging between 0, when the executive or congress are free to change the status quo, and 01, when no change is possible (HENISZ, 2002). The index is based on a spatial voting model where the status quo, the executive and the legislature, the upper and lower houses, are situated in a single dimension, [0, 1], and their ideal positions are identically and independently allocated through uniform distributions. Additionally, the model presumes that all actors have the power of veto over changes to the status quo and that their preferences are symmetrical and have a single peak. Next, the preferences of the parties are introduced into the model based on coincidence in party affiliation among the actors: i.e. if the president's party has a majority in the lower house, the probability of this house exercising a veto decreases. Consequently, the index measures the difficulty of changing the status quo, taking into account the number of legislative houses with the power to veto changes weighted by the coincidence in party affiliation among them. Finally, I also controlled the results of the percentage of seats held by the president's party.

Models

To estimate the probability of oversized coalitions being formed, $Y_{i,t}$, in a country i for the year t, the basic model used is:

$$Pr(Y_{i,t} \lor X_{i,t}) = \Lambda(X_{i,t}\beta + s(t) + \varepsilon_{i,t})$$

where $\Lambda(\cdot)$ is the cumulative distribution function; X is the matrix containing the independent variables; and $s(\cdot)$ is a cubic polynomial used to control temporal dependence in the variable dependent, i.e. $s(t) = t + t^2 + t^3$, where t is the number of years a country has passed since its last oversized coalition (CARTER and SIGNORINO, 2010). This polynomial is useful, furthermore, in exploring whether the existence of this kind of coalition in the past makes its emergence in the future more or less likely. Since just 06 of the 18 presidential countries in the Latin American region had oversized coalitions during the period, the inclusion of fixed effects would arbitrarily remove many of the observations. Although they help to capture non-observed variations, the costs of including them would be large, which is why I have incorporated them in just one of the models. Additionally, I also estimated a model with random effects, which treat the countries and years as elements of a larger population of these elements[9]. This strategy allowed me to examine the effect of variables that do not vary within these groups but do help explain differences between them.

Results

The results are shown in Table 01. Models 01, 02 and 03 are versions of the basic model: the first utilizes only independent variables for which no data is missing; model 02 includes three other indicators; model 03 includes fixed effects for the countries, which significantly reduces the sample size; model 04 employs mixed effects for countries and years; mode 05 is a negative binomial and includes the number of additional parties in the coalition as a dependent variable – suitable given its overdispersion (average 0.35 and a standard deviation of 0.99), as well a likelihood-ratio test between a negative binomial and another Poisson distribution being significant to 0.05, indicating that the dependent variable is overdispersed and that the choice of model is thus correct.

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[9] The Hausman test is recommended to test whether the model with random effects is more adequate than one with fixed effects. Due to data separation (the dependent variable is fully predicted by the fixed effects for the countries) the two types of models cannot be compared. In any case, as the results of Table 01 demonstrate, the use of fixed or random effects does not alter the results substantially.

Table 01. Determinants of occurrence of oversized government coalitions in Latin America (1979-2012)

Dependent variable	Binomial				Poisson
			Fixed effects	Mixed effects	Negative binomial
	(01)	(02)	(03)	(04)	(05)
Presidential power	1.04**	1.02	1.11	1.08	1.01
	(0.02)	(0.01)	(0.44)	(0.06)	(0.01)
Legislative power (Polcon 3)	1.03*	1.05***	1.03	1.08**	1.02**
	(0.02)	(0.02)	(0.03)	(0.03)	(0.01)
Percentage President chairs	1.08***	1.09**	1.08***	1.09**	1.02
	(0.03)	(0.03)	(0.03)	(0.04)	(0.01)
Polarization in Congress	0.91**	0.91**	0.97	0.90	0.96
	(0.03)	(0.03)	(0.04)	(0.07)	(0.02)
Extremism President	0.98**	0.98**	0.98	0.98	0.99***
	(0.005)	(0.01)	(0.00)	(0.01)	(0.00)
Election cycle	5.92**	12.29**	7.67**	8.61*	4.6***
	(5.46)	(14.74)	(6.38)	(10)	(2.11)
Inflation *log*	0.65*	0.99*	0.99**	0.99*	0.99*
	(0.15)	(0.00)	(0.00)	(0.00)	(0.00)
Effective number of parties	1.23	1.22	1.71**	1.20	1.10
	(0.17)	(0.21)	(0.43)	(0.33)	(0.11)
Control of party list		3.4		1.42	3.0**
		(2.72)		(2.67)	(1.68)
Qualified majority		0.55		0.14	103
		(3.58)		(2.62)	(491)
Bicameralism		0.71		21	1.03
		(0.83)		(64)	(0.54)
T	0.11***	0.01***	0.03***		
	(0.01)	(0.01)	(0.03)		
t^2	2.03***	2.10***	1.69**		
	(0.31)	(0.56)	(0.39)		
t^3	0.97***	0.98***	0.97*		
	(0.01)	(0.01)	(0.01)		
Number of additional parties*lagged*					1.69***
					(0.33)
Countries				4.19	
				(2.53)	
Years				0.72	
				(1.17)	
Constant	2.23	0.16		0.0	0.0**
	(5.06)	(0.73)		(0.00)	(0.0)
N	421	302	154	302	299
Log likelihood	-53.15	-34.96	-35.04	-48.89	-110.98
AIC	130.30	99.93	92.09	125.76	249.97

Sources: Dataset_Meireles. Available at bpsr.org.br/files/archives/Dataset_Meireles.
Notes: *** p < 0.01; ** p < 0.05; * p < 0.1. The table entries in models 01,02, 03 and 05 are 'odds ratio'; the table entries in model 04 are 'incidence risk ratios'. Model 03 has fixed-effects for countries, while model 04 has clusters for countries and years (the coefficients are the standard deviation of the constant among clusters). Robust standard errors with cluster for presidents are in parentheses in models 01, 02 and 05. The constants for the countries were omitted and the variables 'inflation' and 'number of additional parties in the coalition' were delayed.

As the table indicates, the results corroborate some of the hypotheses presented earlier. Party fragmentation is positively associated with a higher probability of an oversized cabinet: according to model 01, the addition of 01 effective party in congress increases this probability by 1.2 times. High inflation, the proximity of elections and the relative size of the president's party in congress also show significant effects: with other factors controlled, price rises leave presidents less able to manage large coalitions. At the beginning of their mandates, though, or when their parties control congress, the opposite occurs – the coefficients of this variable, 'cycle', are large mainly due to the fact that it continuously varies only between 0 and 01. This shows that the difference in cabinet size between recently elected presidents and others at the end of their mandates is considerable.

More polarized congresses reduce the probability of large coalitions emerging, contrary to the expected result. According to the argument in the literature, higher polarization would increase congressional uncertainty and, in this situation, presidents would be more incentivized to form large coalitions to counter the impact of defections. In models 03, 04 and 05, however, the 'polarization' variable is insignificant and shows a negative effect. In contrast, in models 01 and 02, where it reaches significance, the same effect remains. In relation to the ideological extremism of presidents, the effect is also negative: presidents who are more ideologically extreme vis-à-vis congress have a lower probability of forming oversized coalitions, which suggests that moderate presidents are favourably situated to include more parties in their cabinets.

Among the institutional variables analysed, the majority do not present the expected results. Although a legislature with a higher capacity to block changes (polcon3) increases the probability of oversized cabinets being formed, the existence of bicameralism and qualified majority rules does not seem to have any impact – among the models, the estimates for these variables varied substantially and did not attain significance. Finally, control of the party list had an opposite effect to the one expected: a one unit increase in the variable measuring the capacity of party leaders to control electoral lists is associated with a threefold increase in the chance of oversized coalitions being formed. As in the previous cases, however, in two of the models this variable did not attain significance.

Among the institutional variables, the legislative power of presidents is the one with the highest effect. Holding all the variables of model 01 constant, and setting the time since the last oversized cabinet at 1.5 years[10], the difference in the predicted probability of a president with maximum legislative powers in the sample forming an oversized coalition and another with minimum powers is 32 per cent. This corroborates the literature arguing that presidential legislative powers can be used to coordinate large coalitions, resolving horizontal bargaining between its members. Graph 02 illustrates this effect, along with the effect of the powers of congress. Holding all the other variables of model 01 constant, it shows that the probability of an oversized coalition emerging increases with higher presidential legislative powers, while the strength of congresses increases in line with the number of years passed since the last oversized coalition (t). Table 02, in turn, shows the marginal effects of the other variables discussed here in model 01, with 95% confidence intervals.

Graph 02. Marginal effects of president's power and congress' power on the probability of occurrence of oversized coalitions in Latin America (CI 95%)
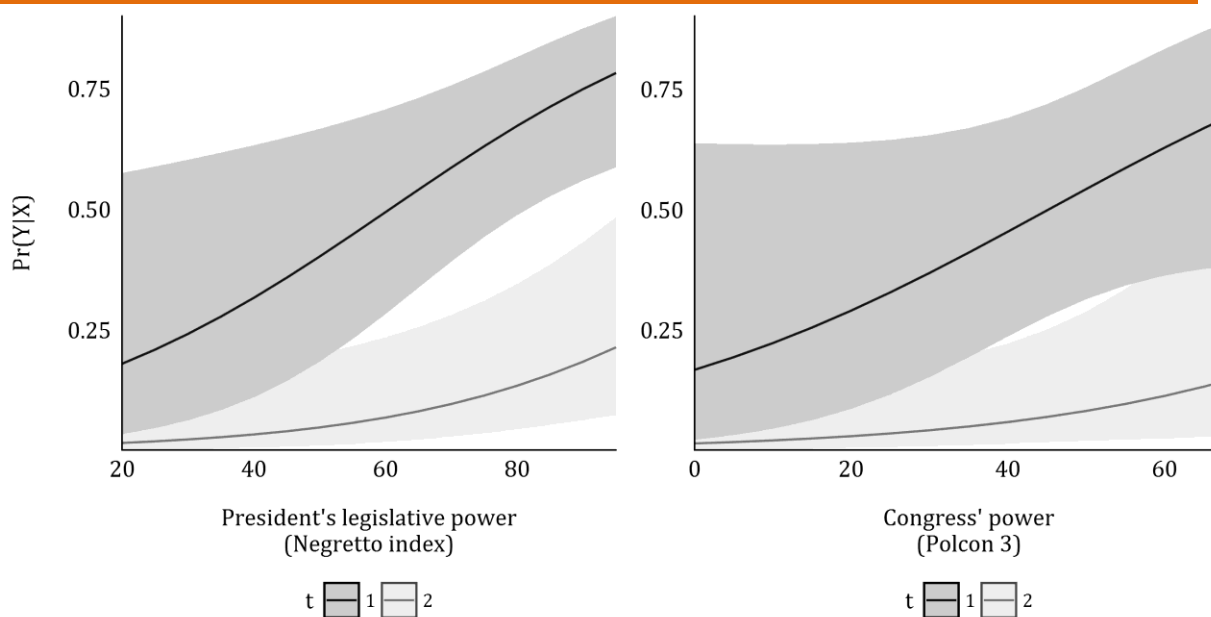
Sources: Dataset_Meireles. Available at bpsr.org.br/files/archives/Dataset_Meireles.

[10] Because a considerable temporal dependence exists in the dependent variable, any value lower or higher than 02 tends to determine the predicted probability. Hence 1.5 is the number of years that more or less approximates to a 50% probability of the outcome of interest, all other factors being constant.

Tabela 02. Marginal effects model 01 (IC 95%)

Variables	Minimum	Min (.05)	Min (.95)	Maximum	Max (.05)	Max (.95)
Presidential power	0.03	-0.03	0.10	0.35	0.09	0.61
Percentage of President chairs	0.01	-0.01	0.02	0.60	0.22	0.97
Polarization in Congress	0.52	0.13	0.91	0	0	0
Extremism President	0.25	0.03	0.47	0	-0.01	0.02
Election cycle	0.04	-0.03	0.11	0.21	0	0.43
Congress power	0.03	-0.03	0.09	0.26	-0.01	0.52
NEP	0.07	-0.02	0.16	0.49	-0.26	01

Sources: Dataset_Meireles. Available at bpsr.org.br/files/archives/Dataset_Meireles.
Note: The table entries are predicted probabilities. The effect of each variable was estimated with all others on average and t equal to 1.5. "Minimum" refers to the predicted probability of the minimum value of the variable in the sample; "Maximum" refers to the predicted probability of the maximum value of the variable in the sample.

The temporal dependence effect also deserves some comment. When the preceding cabinet is oversized, the probability that the current cabinet is so too is 65%, according to model 01. As would be expected, multiparty cabinets frequently last more than a year (2.37 years on average) but this effect quickly vanishes: two years after the occurrence of the last oversized cabinet in a country, the probability of the current cabinet being oversized too is almost 0. In other words, oversized coalitions tend to last more than a year, whether because they do not disappear from one year to the next, or because presidents observe past experience and seek to replace oversized coalitions with other oversized coalitions. On the other hand, once an oversized coalition has been interrupted, the probability of another one forming in the future decreases with the passage of time.

Using just one binary indicator to determine the presence of oversized coalitions, cabinets with just one small additional party, like many of those formed by the 'Concertación' in Chile, are indistinguishable from others with more parties, such as those found in Brazil. To solve this problem, model 05 employs the number of surplus parties in the coalition as a dependent variable. The principal results of this exercise concur with the previous models. Presidential power attains significance, again showing that presidents with greater legislative powers have a higher probability of forming oversized coalitions: holding the other variables in model 05 constant, a president with the maximum score in the presidential power index increases by 0.21 the expected number of additional parties in the coalition. Thus the

operationalisation chosen for the dependent variable does not substantially alter the results obtained.

Oversized coalitions in Brazil (1989-2010)

A number of hypotheses concerning the occurrence of oversized coalitions in Latin America were tested in the previous analysis. Specifically, it was possible to verify that congressional uncertainty, measured by party fragmentation, and the legislative powers held by presidents both play a decisive role in explaining the phenomenon. However, a series of questions remains. Firstly, it is unclear whether party discipline really exerts some effect on the size of cabinets, since the control of party lists is a questionable proxy of voting behaviour in congress. Secondly, presidential popularity, the need to approve proposals that demand supermajorities and the existence of bicameralism are all difficult to measure comparatively. Finally, while many of the variables from the previous analysis may serve to control the differences between countries in terms of the occurrence of oversized coalitions, it is possible that other, non-observed factors, influence the results. Hence, I look to address these problems through a deeper analysis of the Brazilian case.

Dependent variable

In this analysis, I used a database with monthly information on the party composition of cabinets in Brazil between 1989 and 2010, containing 264 observations. The dependent and independent variables are basically the same used in the previous analysis, created on the basis of the same sources, with the following exceptions. The first is the dependent variable, which indicates whether the coalition in month i in year j is oversized, and was based on the percentage of seats controlled in the lower house by coalition governments, as detailed in the CEBRAP Legislature Database, which records party migrations and substitutions during the period.

Independent variables

The CEBRAP Database also provided information on roll-call votes, which were used to measure the effect of uncertainty of congressional support on the incentives for presidents to form oversized coalitions. To this end, I calculated the traditional 'Rice' index for each party with representation in the Chamber of Deputies,

month by month. This index is obtained for each vote by subtracting the percentage of congress members from each party who voted in accordance with the recommendation of the leader of the government from the percentage of members who voted against – the resulting absolute value is the party score, which can range between 0, when the party is completely divided, to 100, when nobody in the party voted against the parly leader's recommendation. Additionally, I have considered only votes in which at least 10% of the congress members voted differently from the majority (FIGUEIREDO and LIMONGI, 1999). The main variable used based on these 'Rice' indexes is the monthly average for all the parties making up the government weighted by the percentage of seats of each party. This variable is used, therefore, to measure the average congressional support that the coalition government offers to a president.

Since presidents may have reformist programs, including legislative proposals that require supermajorities, I have also included the number of monthly roll-call votes that require a qualified majority to be approved. The expected effect of this variable is the same as the effect of the 'Qualified Majority' variable employed previously: the more qualified majority votes required, the more incentives exist for presidents to form oversized coalitions as a means of obtaining the congressional support needed to approve their programs. As it captures the quantity of monthly votes subject to approval by a supermajority, it better registers the influence of this kind of legislative agenda on the presidential strategy for assembling cabinets.

In order to analyse the effect of the president's popularity on coalition size, I used the presidential popularity index based on polls conducted by the Brazilian Institute of Public Opinion and Statistics (IBOPE), available for the entire period under study, normally published quarterly[11]. This variable is calculated by computing the percentage of interviewees who replied 'Excellent/Good' to the question "In your view, has the performance of the President's government been excellent, good, average, bad or very bad?" and potentially varies between 0 and 100. Again the expected effect is the same hypothesized previously: the higher the president's popularity, the more incentives parties will have to join a government coalition.

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[11] The data on presidential popularity, calculated on the basis of quarterly surveys conducted by IBOPE with representative sampling of the Brazilian population, were obtained from the site of the journalist Fernando Rodrigues: http://noticias.uol.com.br/politica/pesquisas. Accessed on February 12, 2016.

In relation to the effect of the second legislative house on the size of coalitions, I have included the absolute difference in the percentage of seats controlled by the government in the Chamber of Deputies and the Senate as an independent variable in the models. The expected effect is as follows: the greater the difference, the more likely it is that the coalition in the Chamber is oversized, indicating that obtaining a legislative majority in one house may have depended on forming an oversized coalition in the other. By using this operationalization, I also mitigate the problem of endogeneity between the percentage of seats controlled by the government in the two houses.

Finally other controls include the 'Effective Number of Parties' (ENP); 'Cycle', which indicates the time remaining to the next elections on a continuous scale between 01 and 0; 'Lame', a binary indicator where the value 01 indicates that the president cannot run for re-election; and 'Polarization in Congress and Extremism of the President'. All these variables are taken from the previous comparative analysis.

Results

To examine the effect of these variables on the probability of an oversized coalition being formed in Brazil, I used logistic models. As this series is smaller and does not include other countries, I dealt with temporal dependence between observations primarily through robust standard errors with clusters for the years, which measure the correlation between observational errors for the same year and fixed effects for the presidents. In any event, as the observations used in the majority of predictors vary on a monthly basis, some do not make sense when assessed in the current month: it is to be expected, for example, that variables like presidential popularity are only assimilated by the parties in the months following their occurrence. Furthermore, for methodological reasons, considering the delay in this variable helps mitigate a problem of endogeneity, establishing a temporal order between independent and dependent variables. Hence, in models 07, 08 and 09 I have used the delay of one, two and three months for some of the predictors employed in the analysis, highlighted in italics, as indicated in the columns. The results of these models are shown below in Table 03.

Tabela 03. Determinants of occurrence of oversized government coalitions in Brazil (1989-2010)

Delay in predictors italicized	t	t$_{-1}$	t$_{-2}$	t$_{-3}$
	(6)	(7)	(8)	(9)
Election cycle	24.95	16.77	14.02*	17.43
	(63.66)	(37.31)	(27.11)	(33.8)
Lame Duck (*dummy*)	3.14	1.53	1.24	0.44
	(9.09)	(4.15)	(2.49)	(1.26)
Percentage President chairs	0*	0	0*	0*
	(0)	(0)	(0)	(0)
Polarization in Congress	4.14	38.45	12.03	12.4
	(23.11)	(215.41)	(65.26)	(63.33)
Extremism President	0.74	0.83	0.88	0.89
	(0.21)	(0.23)	(0.23)	(0.22)
Rice index $_{lagg}$	1.08	0.22	0.1	0.17
	(2.07)	(0.42)	(0.27)	(0.43)
Number of effective parties$_{lagg}$	7.45	3.5	2.38	2.53
	(12.02)	(5.15)	(3.42)	(3.53)
Polls with a qualified majority$_{lagg}$	1.01	1.04***	1.06**	1.07***
	(0.02)	(0.01)	(0.02)	(0.02)
Difference House-Senate$_{lagg}$	1.27**	1.14**	1.11*	1.06*
	(0.12)	(0.07)	(0.06)	(0.05)
Presidential popularity$_{lagg}$	1.01	1.01	1.01	1.02
	(0.07)	(0.07)	(0.07)	(0.07)
N	251	245	239	233
Log Likelihood	-70.14	-74.15	-75.4	-72.67
AIC	168.3	176.3	178.81	173.33

Sources: Dataset_Meireles. Available at bpsr.org.br/files/archives/Dataset_Meireles.
Note: *** p <0.01; ** P <0.05; * P <0.1. The entries of models are *odds ratio*. Robust standard errors robust with clusters for years are in parentheses. The constants for the presidents were omitted and the variables 'popularity', 'legislative support', 'NEP', 'qualified majority and difference House-Senate', in italics in the table, were delayed in models 03 and 04.

As can be observed, two of the main variables are significant and present effects consistent with the hypotheses. The first variable is the number of votes with a qualified majority: its effect is positive, indicating that an increase of 01 vote requiring a supermajority in the monthly agenda of congress increases the chance that the coalition government will be oversized between 1.01 and 1.07 times. Though this increase may seem small, holding the other variables of model 07 constant, the difference between the minimum and maximum values of this variable in terms of the probability of an oversized coalition being formed is 10 percentage points – a considerable amount bearing in mind that the model contains other predictors. A reformist program, which

contains legislative proposals that require the support of a qualified majority to be approved, is thus associated with a higher incidence of oversized coalitions, independently of the delay in months applied to the variable.

The second predictor to present a significant effect is the difference between the percentage of seats controlled by the coalition in the Chamber of Deputies and in the Senate. As the models indicate, the 01% increase in the difference of seats controlled by the coalition in each house is associated with an increase of around 1.15 times in the chance of an oversized coalition emerging in the lower house, an effect that diminishes the more delayed the variable used to measure it. Focusing again on the other variable of model 07, the transition from the minimum value of this variable to the maximum increases the average probability of an oversized coalition being formed by around 27 percentage points.

As for the other variables, some presented the expected effects, though without attaining significance. According to model 06, the variable that measures electoral cycle and extremism of the president show the same effect that those encountered in the comparative analysis, positive and negative, respectively, though they are not significant. The polarization variable, for its part, shows a contrary effect to the one encountered previously, though consistent here with expectations: greater ideological polarization in congress increases the likelihood of oversized coalitions being formed, but this effect is also non-significant. The variable that measures the lame duck status of presidents has positive coefficients in three of the four estimated models. The Number of Effective Parties (NEP) also exerts a positive and considerable effect on the probability of an oversized coalition emerging. Finally presidential popularity and party discipline in congress do not seem to have any unequivocal effect on the occurrence of surplus coalitions.

In sum, this analysis provides additional support to the previous findings, as well as contributing original evidence that the need to approve legislative proposals that require supermajorities, as well as the need to obtain majority coalitions in both legislative houses with different party seat distributions, are associated with the occurrence of surplus coalitions in Brazil.

Robustness tests

To test the robustness of the results of previous analyses, I assessed some additional models. First, the comparative analysis contained the possibility that some influential observations were determining the principal results. In order to test this hypothesis, I proceeded to remove each country from the sample alternately, reassessed model 01 presented in Table 01. Despite changes in some coefficients, the principal findings persisted. Second, given that the criteria utilized to classify the parties on an ideological scale, taken from Coppedge (1997), could contain measurement errors, I reassessed model 01 using another ideological classification, taken from Baker and Greene (2011), which updates and expands Coppedge's (1997) original classification (the Pearson correlation coefficient between the polarization variables in congress calculated with these different criteria is 0.84). Once again, despite some alterations, the principal findings remain evident. Finally, to provide greater assurances that the temporal dependence in the analysis of the Brazilian case did not influence the coefficients obtained, I also reassessed model 07 including the independent variable delayed by one and two months as a predictor. In both cases, the results also do not alter substantively, despite the loss in significance of the variable that measures the number of qualified majority votes.

Conclusion

Among the decisions that a president takes when forming a coalition cabinet, one of the most important is the number of parties to include in it. Backed by a sufficient number of parties to ensure a majority in congress, the government can solve problems such as paralysis in decision making and the instability that can supposedly emerge in systems with a separation of powers. However, presidents very often include more parties in their cabinets, and the reasons that explain this decision are non-obvious. Using data from 18 countries with presidential systems in Latin America between 1979 and 2012, this article tested some of the main hypotheses suggested in the literature to explain the occurrence of this type of coalition. Among other findings, the results showed that presidents with greater legislative powers and those facing a high degree of congressional uncertainty are associated with higher probabilities of oversized coalitions emerging. Furthermore, specifically in the Brazilian case, the existence of a

reformist agenda and the difference in seats controlled by the government in the Chamber of Deputies and the Senate are also associated with surplus coalitions*.*

This article has also sought to draw attention to variations in types of oversized coalition. A party system with many parties enables the existence of coalitions with diverse surplus parties, while in other systems the emergence of surplus coalitions only occurs when a majority party forms a coalition with a smaller one. As the data analysed here suggests, some countries also end up experiencing this kind of variation over time. In the Brazilian case, certain factors help explain this phenomenon, such as the need to approve an agenda with legislative proposals that require supermajorities and the requirement to obtain a majority in both legislative houses, both of which encourage presidents to add more parties to their cabinets. On the other hand, some factors that are not considered here, such as crises and corruption scandals, can also serve as triggers for the initiation or termination of oversized coalitions – as in Bolivia from 2002 onwards when the then vice-president Carlos Mesa assumed office after the fall of Sánchez de Lozada and began a new period of non-partisan cabinets, which lasted to the election of Evo Morales in 2006 (BREUER, 2008, pp. 15-16). In this sense, a research agenda that explores the impact of other factors on not just the formation but also the maintenance and termination of oversized cabinets in presidential systems has much to contribute to the literature on the topic.

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