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Can legislative majorities shape budgets? A comparative analysis of presidential systems in Latin America

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Abstract

In separation of powers systems, in theory, legislative and executive branches must concur for policies to be enacted. However, empirical research, especially on Latin American cases, suggests that rather than reaching a compromise, it is common for the executive to make unilateral decisions, leaving the legislature marginalized in the policymaking process. Contrary to this trend, I argue that understanding important policy choices, including the national budget, requires considering the formal powers assigned to the president and the assembly, in interaction with their ideological divergence. Examining 12 presidential democracies for the past 20 years, I investigate the legislative majority's success in determining government expenditures under various policymaking institutions. I identify a number of institutional scenarios where legislative majorities are highly likely to succeed, while in other configurations, their success depends on their ideological divergence from the president.

INTRODUCTION

Do legislatures in presidential democracies play a significant role in policymaking? Are legislatures at odds with the president able to influence policy choices? If so, under which circumstances will a legislative majority be able to translate its policy preferences into policy outcomes? These questions are fundamental to our understanding of political representation in presidential systems. By definition, in a separation of powers system, policy is made jointly by branches of government who are held accountable separately. And yet, even though separate elections often produce legislators and executives with countervailing ambitions, the extent to which legislatures matter has been a controversial issue. Many scholars have suggested that, in practice, legislatures in Latin American presidential democracies are marginalized in the policymaking process to the point of serving as mere rubber-stamps for the presidency (Linz, 1990; Morgenstern, 2002; O'Donell, 1994). Even when it comes to the most important policies, such as decisions about revenues and spending, researchers conclude that Latin American presidents make most decisions unilaterally, virtually behaving as "budget dictators" (Cox & Morgenstern, 2001, p. 183). On the other hand, studies suggest that the exact opposite takes place in both the federal and subnational separation

of powers systems in the United States, as legislators are the ones in an advantaged position. In these cases, empirical findings show that presidents and governors are the ones having difficulties shaping expenditures (Alt & Lowry, 1994; Kiewiet & McCubbins, 1991).

Moreover, scholars with an interest in policymaking in presidential systems have mostly focused on understanding how presidents, as heads of the government, exercise policy influence (Alemán & Calvo, 2010; Calvo, 2007; Cheibub et al., 2004; Llanos, 2001; McGrath et al., 2018; Palanza, 2019; Saiegh, 2011). These accounts, however, have only provided indirect evidence about legislatures' influence (or lack of influence) in the policymaking process because insofar as the president is successful, an assembly's success questionable.

In this article, I study legislative success. I argue that when the president and the legislature disagree, variation in constitutionally allocated powers explains why only certain legislative majorities are successful in shaping policy outcomes. Conversely, if the branches of government share a preferred outcome, institutional separation of powers has little impact on their ability to enact it. I examine how different combinations of institutional mechanisms manage potential conflicts arising from divergent interbranch preferences. Given the considerable institutional variation within separation

of powers systems, some designs enable branches of government to resolve tensions and reach agreements, while others foster policy deadlock and protect the status quo. I also contend that although in separation of power systems, the president and the assembly share the power to make policy decisions, certain systems allow a single elected branch to concentrate enough formal power to make decisions unilaterally, without any concessions. This interpretation differs from previous scholarship by considering both the circumstances under which the executive can marginalize the legislature from the policy process and the circumstances under which the legislature can exercise policy influence with little regard for the president's policy priorities, whereas most scholars focus only on the former. In both scenarios, the line distinguishing separation of powers systems from fused systems, such as parliamentary regimes, is unclear. In other words, just because the executive and the legislative branches have separate origins, it does not mean that the policymaking process involves separate powers.

I consider three institutional mechanisms that facilitate or constrain the success of a legislative majority in the policymaking process: the policy reversion provision if the executive and the legislature reach a stalemate, whether the legislature has the ability to introduce amendments to a policy proposal, and the override requirement if the president is endowed with veto power. Although several scholars have written on how policy reversions (Baldez & Carey, 1999; Cox, 2014), the introduction of amendments (Barrett & Eshbaugh-Soha, 2007; Calvo, 2014; Pereira & Mueller, 2004), or presidential vetoes (e.g., Alemán & Schwartz, 2006; Cameron, 2000; McGrath et al., 2018) resolve interbranch conflicts, my argument focuses on how their interaction impacts the success of a legislative majority that ideologically diverges from the president. Importantly, unlike studies that have emphasized that, at best, legislatures in presidential systems are "veto players" limiting presidential power (Cox & Morgenstern, 2001; Saiegh, 2011; Shugart & Carey, 1992), this article highlights that many legislatures have the ability to successfully translate their own preferences into policy outcomes.

In addition to these theoretical contributions, I test the implications by leveraging institutional variation across Latin American presidential democracies, focusing specifically on the budgetary process. Year after year presidents and legislators construct and approve the government's budgets, creating a perfect opportunity to study how well (or how poorly) legislators fare when trying to shape spending patterns during their time in office. The construction of the budget is a key area in which legislators and presidents have strong reasons for pushing for their most preferred levels of spending across an array of items. In sharp contrast to prior research using legislative proposals (Alemán

& Calvo, 2010; Alemán & Navia, 2009; Calvo, 2014; McGrath et al., 2018), fiscal deficits (Alesina et al., 1999; Cheibub, 2006; Fabrizio & Mody, 2006; Hallerberg et al., 2009; Hallerberg & Marier, 2004; Wehner, 2010), or the size of the government (Alesina et al., 1999; Hallerberg & Marier, 2004; Klarner et al., 2012; Martin & Vanberg, 2013, 2014; Persson & Tabellini, 2005) to measure policy success, my work creates a measure explicitly assessing whether legislators' preferences are translated into policy outcomes. To do so, I rely on elite surveys that measure legislators' spending priorities which I then compare to changes of actual government expenditures during these legislators' time in office.

In what follows, I theorize about how variation in the separation of power affects legislators' success at determining policy outcomes. The following sections cover the creation of novel measures to estimate the legislative majority's success on shaping expenditures, the ideological divergence between the legislature and the president, and the classification of institutional designs. Using data on 12 Latin American democracies for the past 20 years, the empirical findings provide important implications for understanding the effect of political institutions on policy outcomes and, as a result, for the quality of representation in separation of powers systems. I discuss these implications in more detail in the concluding section.

1 | LEGISLATORS' PREFERENCES AND INSTITUTIONS

Although one of the most fundamental powers of legislative branches is the "power of the purse," theoretical and empirical studies on Latin American presidential systems have consistently highlighted the predominant influence of presidents over budgetary outcomes (Cox & Morgenstern, 2001; Payne et al., 2002). Extensive research has predominantly focused on evaluating whether specific institutional features within the budgetary process can effectively curb expansionary spending pressures, thereby leading to reduced deficits (Alesina et al., 1999; Cheibub, 2006; Hallerberg et al., 2009; Hallerberg & Marier, 2004; Martin & Vanberg, 2013; Wehner, 2010). The prevailing theoretical arguments and empirical evidence suggest that procedures providing strong prerogatives to the executive, as opposed to those that attribute more power to the legislature, generate higher budget balances because powerful unitary executives curb the spending appetite of legislators (Hallerberg & Marier, 2004).1

However, a crucial theoretical distinction arises between my approach and previous contributions. Unlike prior studies, my work does not presuppose that legislators consistently advocate for increased spending. Instead, the theoretical framework remains neutral

regarding whether legislators prefer to augment or reduce spending. Notably, the empirical analysis explicitly incorporates legislators' preferences into the assessment. Furthermore, this study diverges from recent political economy literature by examining whether legislators can effectively translate their preferences into the distribution of public expenditures, irrespective of changes in the overall budget size, deficit, or public debt levels.

By combining insights from formal models of lawmaking with extensive research on budgetary politics and procedures, this study endeavors to analyze the influence of assemblies on expenditure allocation across diverse institutional designs. Notably, budgetary processes exhibit distinct characteristics, commencing with the executive's formulation of a budget proposal and featuring multiple reversion points in the absence of a new budget. Furthermore, other institutional provisions, particularly amendment provisions and veto and override requirements, interact with the reversion points to determine the distribution of formal power across branches of government. Consequently, the subsequent analysis delves into each of these institutional features and their interplay to evaluate the relative strength of the president and the assembly in the budget-making process.

1.1 | Budget reversion

The interplay of the legislature and the executive starts with the introduction of the budget proposal.² Romer and Rosenthal's (1978, 1979) seminal formal model for political bargaining can be used to better understand the conditions under which executives gain a considerable advantage by having the authority to propose the budget. In a scenario where a proposer presents a take-it-or-leave-it proposal to a finite number of individuals, considering a status quo point and a unidimensional policy space, Romer and Rosenthal's work illustrates the substantial influence of the status quo on the location of the policy outcome.

In the budgetary process, the concept of a reversion point replaces the idea of a status quo. Under a take-it or leave-it scenario, the president strategically formulates a proposal considering the reversion budget and the legislature's preferences, aiming to achieve the best possible outcome within a unidimensional policy space. As the reversion budget aligns more closely with the executive's spending priorities and diverges from those of the legislature along this policy spectrum, the president can present a proposal that either implements the reversion point (when the reversion point is between the executive's and the legislative's spending preferences) or reflects her most preferred allocation of spending (when the reversion budget is between the executive's preference and the legislature's opposite

extreme). On the contrary, if the reversion point is close to the assembly's spending priorities (when the reversion budget is between the assembly's position and the executive's opposite extreme), the executive has incentives to introduce a proposal closest to her ideal budget while also making the legislature indifferent with respect to the reversion budget.

Common reversion provisions include the executive's proposal, the previous year's budget, and zero spending. Reviewing the budgetary reversion across 156 constitutions-mostly in the Middle East, Latin America, and Francophone Africa—Cox (2014) finds that roughly 25% of them stipulate the executive's proposal as the reversion and 39% stipulate the last year's budget as the reversion. Extending Romer and Rosenthal's (1978, 1979) framework, if the budget reverts to the executive's proposal, the president unilaterally sets spending at her preferred level. If expenditures revert to those in the previous year's budget, the president can set a budget that either maintains or enhances her standing, while ensuring that the legislative median remains at least indifferent between the previous year's budget and the new proposal. If the reversion budget is zero spending and shutdown occurs if the proposal is not accepted by congress, the outcome will hinge on the legislature's preferences. Should Congress prefer any spending over no spending at all, the president can exploit this scenario by proposing her ideal budget.

In essence, in a take-it-or-leave-it scenario, the legislature finds itself unable to successfully translate its preferences into the budget outcomes if they disagree with the president's policy priorities and the budget reversion is the executive's proposal. Here, the *Executive sets the agenda*. However, if the budget reversion reflects the previous year's budget or zero spending, opportunities for *interbranch bargaining* emerge, because the president may have to incorporate the median legislator's preferences into her proposed budget.

1.2 | Legislative amendments

In addition to considering who has the authority to formulate budget proposals and set reversion points, I further explore the budgetary process by relaxing the take-it-or-leave-it assumption and examining the means by which a proposed budget can be amended. While legislatures often, though not always, have the ability to introduce amendments into the president's budget proposal—such as reallocating funds within or between spending categories—the power to introduce amendments significantly alters the legislature's position within Romer and Rosenthal's (1978, 1979) institutional framework. With the introduction of amendments, any proposal can be modified to resemble the legislature's preferred budget. Hence, if the president has no power to veto the legislature's amendments, the

legislature can override the spending priorities of any presidential proposal.

In some exceptional circumstances, however, presidents may be disinclined to present a budget proposal when the legislature has the authority to introduce amendments. This reluctance can be a rational presidential strategy, particularly when the reversion point favors the president, as observed in instances such as Argentina. In several cases, Argentine presidents have declined to submit budget proposals when, due to rampant inflation, the previous year's budget provided more advantageous conditions than any new budget approved by the assembly. Essentially, because previous spending levels are underestimated due to inflation, presidents can allocate any surplus funds as they see fit.³

1.3 | Executive veto

Some presidents can leverage their veto power to extract concessions from congress and limit the introduction of legislative amendments (Cameron, 2000; Crisp et al., 2011; Groseclose & McCarty, 2001; Krehbiel, 1998; Schibber, 2012; Shugart & Carey, 1992; Sin & Palanza, 2013). However, the effectiveness of this strategy in the budgetary process depends on various factors, including the budget reversion and veto strength. Veto power becomes a potent tool for presidents when the reversion point favors them over the legislature, enabling them to provoke a stalemate and impose their budget proposal or the previous year's budget. (Baldez & Carey, 1999). Even the threat of a veto could potentially minimize the extent to which legislators amend the president's proposal (Groseclose & McCarty, 2001). Conversely, if the reversion point aligns more closely with the legislative median's spending priorities than with the president's ideal budget, the threat of a veto loses credibility, granting congress significant influence over expenditure allocation.

Additionally, differences in override requirements play a crucial role in shaping budget-making dynamics. High override thresholds can limit the legislature's ability to influence budgetary outcomes, granting the executive greater leeway. Considering a reversion point that puts in place the president's proposal, the veto could only be overridden if a veto pivot prefers the budget enacted by the median legislator to the president's ideal budget. Hence, if the president is between median legislator and a veto pivot on an unidimensional policy space, she always attains her ideal budget because this veto pivot will prefer the budget reversion to the median legislator's ideal budget. If the closest veto pivot is between the president and the median legislator on an unidimensional policy space, then the president's proposal must align with the pivot's preferences to minimize concessions to the median legislator. Thus,

when there is a strong veto and the budget reversion is president's proposal, the executive sets the agenda.

When the reversion provision is the previous year's budget, however, that budget might favor the legislature, the president, or neither. The content of the new budget will depend not only on how the reversion point fares with respect to the president's and the median legislator's ideal budgets, but also on whether the president is between a veto pivot and the median legislator or, instead, there is a veto pivot is between the president and the median legislator. Over all these possible configurations, the institutional design provides the legislature with the necessary tools to extract concessions from the executive. Specifically, the median legislator is able to enact a budget that is either closer to her preferred budget than the previous year's budget-but not necessarily her ideal budget—or, at the very least, maintains expenditures at last year's levels. In a nutshell, if the reversion point is the previous year's budget and the president has a strong veto, there are opportunities for interbranch bargaining.

Certain institutional provisions, on the other hand, advantage the legislature considerably. Some presidents are empowered with what is often-called a weak veto because it can be overridden by a simple majority. The majority in the assembly can introduce amendments to the president's proposal, enact its ideal budget, and then easily override any presidential veto. Essentially, the executive does not have the capacity to sustain a reversion point favoring her preferred policy outcome because the *legislature overrides* the president's preferred spending allocations.

1.4 | Balance of power

Considering all possible combinations of budget-making provisions—budget reversion, ability to introduce amendments, and veto strength—I classify each according to whom the predicted policy outcome is likely to benefit the most. This classification has three categories: Executive Agenda Setting, Interbranch Bargaining, and Legislative Override.⁴

First, in certain institutional arrangements, policy outcomes are unlikely to benefit the legislative median because *Executive Agenda Setting* powers allow the president to select, to select the outcome closest to her ideal budget. In this scenario, the executive does not necessarily need to rely on strong veto authority. As a matter of fact, if the budget reversion is the president's proposal and legislators are not allowed to introduce amendments, even a president without veto authority can implement her ideal budget.

Second, under other institutional arrangements, policy outcomes can either improve or maintain the position of the legislature as well as improve or maintain the position of the president. The proximity of the enacted

budget to the legislative median's ideal budget depends on whether the legislative median can leverage the previous year's budget in the *Interbranch Bargaining* process.

Finally, in another set of institutional arrangements, the approved budget will reflect the legislative median's preferred outcome because the legislature has the capacity to override the president's actions and impose its ideal budget (*Legislative Override*).

To summarize, legislative majorities in the *Executive Agenda Setting* scenario are unlikely to extract concessions from the executive. Majorities in legislatures with procedures fostering *Interbranch Bargaining* are able to extract some concessions from the executive but may not achieve their ideal budget. In contrast, those under the *Legislative Override* design are more likely to approve their ideal budget.

However, as noted earlier, any focus on variations in the institutional allocation of powers assumes a divergence between the preferences of the legislators and the preferences of the executive. If the branches of government share a preferred outcome, any institutional separation of powers should have little impact on their ability to enact it. Some institutional designs may impose greater coordination requirements than others, but nothing that should seriously impede actors lacking countervailing ambitions.⁵

The following hypothesis summarizes my expectations: If the policy views of the president and the median legislator diverge, a legislative majority's success will be *greater* in the presence of budget procedures allowing for a *Legislative Override* than in the presence of any other budget institutions. If the policy views of the president and the median legislator diverge, a legislative majority's success will be *greater* in the presence of an *Interbranch Bargaining* design than in a *Executive Agenda Setting* design.

In conclusion, understanding how institutional designs, in interaction with interbranch ideological divergence, impact the influence of the majority in the legislature over the budget is an important complement to previous research on budgetary politics and, more broadly, on the impact of institutions on policy outcomes.

2 | CAPTURING SUCCESS IN THE BUDGETARY PROCESS

Measuring legislators' success at determining spending priorities over the course of a legislative term is not straightforward. An ideal measure would have two characteristics. First, it would allow me to assess whether the legislative majority's spending priorities are reflected in the public expenditures. Second, it should be consistent and reliable across countries and time. Given these desirable characteristics, I create a

measure that accounts for the current legislative majority's preferences for increasing or decreasing spending and changes in government spending relative to spending during the previous term on four categories: Education, Health, Social Security, and Defense. The intuition behind this is that the majority of legislators should be considered successful when they are able to sway public spending in their preferred direction during the course of their legislative mandate. Hence, the outcome variable indicates success when the median preference supports an increase (or decrease) in spending for a given category and spending is increased (or decreased). On the contrary, the outcome variable indicates failure when the median preference is in favor of increasing (or decreasing) spending for a given category and spending is decreased (or increased). Measuring success on a number of budget categories allows me to accurately assess the overall success of a legislative majority during a legislative term.

To construct this measure, I draw upon parliamentary surveys of legislators' spending preferences and data on government expenditures. First, for spending preferences, I rely on a series of questions included in the Parliamentary Elites of Latin America project, overseen by the University of Salamanca (USAL). The project has conducted confidential surveys of a representative sample of members of congress in Latin America since 1994 (lower chambers in bicameral legislatures).^b Surveys have usually been conducted right after representatives take office. Starting with the second wave of surveys, USAL has asked legislators whether they preferred to increase or decrease spending on five different budget categories. One key advantage of these items is that they directly tap into legislators' spending priorities. For each spending category and legislative term, the preference of the legislative majority is measured as the median response to the survey question.

Using a total of over 2910 surveys of individual legislators, I estimate the median spending priority on four budget categories—Education, Health, Social Security, and Defense—for a total of 33 legislative terms in 12 Latin American democracies: Argentina (1998–2009), Bolivia (1997–2010), Chile (1997–2010), Colombia (1998–2010), Costa Rica (1998–2010), El Salvador (1997–2006), Guatemala (1995–2008), Honduras (1997–2010), Mexico (1997–2006), Nicaragua (1996–2011), Paraguay (1998–2008), and Uruguay (2000–2010). I include only countries that allow me to calculate the measure for more than one legislative term.⁸

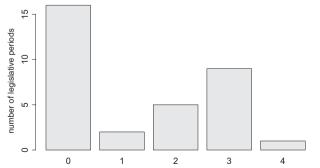
Preferences favoring an increase or a decrease in spending vary across budget categories. In fact, it is not the case, as some literature suggests, that legislative majorities always seek to increase spending due to electoral pressures (see Alesina et al., 1999; Hallerberg & Marier, 2004). About 50% of legislative medians wanted to allocate more funds to both Education and Health (and 50% wanted to allocate less

funds to both categories), 30% of the them preferred to enlarge the budget allocation for Social Security (and 70% to reduce the budget allocation), and roughly 5% of the legislative majorities wanted to increase spending on Defense (and 95% of them wanted to decrease spending).

Furthermore, spending priorities vary across legislative periods. Figure 1 illustrates the number of budget categories on which a majority preferred to increase spending. Surprisingly, and contrary to what most of the budgetary politics literature assumes, in 48% of the legislative periods, the median legislator preferred not to increase spending on any of the categories and, instead, she preferred to decrease spending on all of the categories. In the remaining legislatures, the median wanted to increase spending on at least one item, with most of them wanting to increase expenditures in three or four categories.

As argued above, not every legislative majority should be equally successful at determining spending priorities over the course of their term. In order to evaluate whether spending increased or decreased during a legislative term, I collected annual expenditures as a percentage of GDP by country-year for each of the four categories mentioned earlier.9 To capture whether spending patterns reflect the median preferences of the legislature during a legislative term, I calculate the difference between the mean annual expenditure during this legislature's term—using the year in which it approved the first budget as the cut-off year 10—and previous annual expenditures set by the preceding legislature in its last year in office—which are the spending levels legislators' have in mind when answering the elite survey. Obviously, spending for a given expenditure category increased when this difference is positive and that it decreased when the difference is negative. Empirically, spending never remained unchanged.

The measure is designed to capture direction of change (rather than preferences on specific amounts spent) because the theoretical argument seeks to explain the overall success of the legislature median. In other words, the argument is not about *how much* the



Number of categories in which the median preference was to increase spending

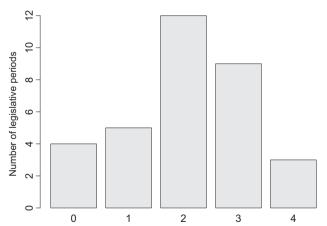
FIGURE 1 Number of legislative periods in which a majority preferred to increase spending in none to all budget categories.

legislature is able to increase or decrease spending but whether it has the *ability* to move spending in its preferred direction. What is more, the surveys to members of congress do not ask how much or how little they would like to spend in a given category. Thus, a more fine-grained test of preferences over spending is not possible.

Finally, I compare the legislative majority's spending priorities to changes in government spending for each expenditure allocation. The median preference prevails in a given category if (1) at least 50% of legislators wanted to see an increase in spending and average spending ultimately increased during their tenure in office; or (2) 50% or more of legislators wanted spending to decrease, and the average funds to that category decreased throughout the legislative term. Otherwise, I consider that the median preference failed in getting translated into the allocation of expenditures. Using this measure, I calculate whether the majority was successful in shaping expenditures in 129 budget categories in 33 legislative terms for 12 countries.¹¹

I find a wide variation in the level of success of the legislative medians (see Figure 2). Only 10% of the median legislators were successful in swaying spending in all categories, while 27% of them were able to get their preferred spending levels in three categories and 36% of them in two categories. In 15% of the legislative terms, on the other hand, the median succeeded in changing spending in its preferred direction in one category and in 12% of them they failed at shaping public expenditures on all four categories.

Notice that, because I am interested in the total level of success, the unit of analysis is the legislative term. Another way of thinking about the measure is as if each budget category were an opportunity for legislators to move spending in the direction of their preferred level.



Number of categories in which the median preference succeeded

FIGURE 2 Number of legislatures in which a majority successfully changed spending in none to all the budget categories.

Theoretically, this variable can be understood as if a majority of legislators had n opportunities to change expenditures, where n is the number of budget categories. In this study, for the most part, n refers to a total of four budget categories—Education, Health, Social Security, and Defense. There can be success in none, one, two, three, or all of the budget categories. The measure captures variation across legislative periods within a country, and also across countries where institutional designs vary.

3 | INTERBRANCH DIVERGENCE OR COUNTERVAILING AMBITIONS

Recall that the theoretical argument I seek to test posits that as the preferences of the president and the median legislator diverge, institutional designs will have a discernible impact on the legislative majority's ability to implement her spending goals. To measure the ideological divergence between the president and median legislator, I draw again upon the USAL surveys I used to measure the outcome variable. Using the items that ask legislators to place themselves and to place the president on a left-right continuum, I construct a measure capturing the divergence between legislators and the president. It is worth pointing out that there is a strong association between the legislators' selfplacement on the left-right dimension and their spending preferences. Legislators placing themselves on the left are more likely to prefer to increase spending on Education, Health, and Social Security and to decrease spending on Defense, while those on the right are more likely to prefer to decrease spending on Education, Health, and Social Security and to increase spending on Defense.¹² Furthermore, because the USAL elite surveys were conducted early in the legislative mandate, a legislator's placement of the president is not based on their interaction (or legislative success) over the course of their term in office.

I estimate the divergence between the median legislator and the mean perceived position for the president, and normalize the measure by the dispersion of legislators' preferences. More formally, the *relative* ideological difference between the median legislator and the president, which I call *interbranch divergence*, is,

Interbranch Divergence =
$$\frac{|ML - P|}{SD_I}$$

where ML corresponds to the median self-placement of legislators, P corresponds to the placement of the president, calculated as the mean placement given by all the surveyed legislators, and SD_L is the standard deviation of legislators' selfplacement on the left–right scale. Small values are indicative of ideological convergence between the president and the median legislator, whereas, larger

values are indicative of ideological divergence between the two actors.

Normalizing the ideological difference between the president and the median legislator by the standard deviations mitigates difficulties that might arise due to variations in how much of the left-right scale legislators utilize when placing themselves and the president across countries, which, as a result, impacts the potential maximum difference between the median legislator and the president for each legislative term. Recall that the maximum level of interbranch divergence is when the median legislator and the president are furthest apart. On a scale from 1 (most left) to 10 (most right), if legislators place themselves between 1 and 10, and then placed the president at 10, the president is considered ideologically extreme. However, suppose that legislators only place themselves between 3 and 7, and proceed to place the president at 7. This president is considered an extremist as well with respect to the preferences of the legislators. But, assuming that in both scenarios the median legislator is placed at 5, interbranch divergence would only take a value of 5 in the first example, while it would take a value of 2 in the second example. Both presidents' ideal budget is at the extreme of the distribution of legislators' preferences, but by considering simply the absolute difference between these two actors, we would infer that the second president is much closer to the median legislator than the first president. Thus, to account for this issue, I normalize the measure by dividing the absolute difference between the president and the median legislator by the dispersion of legislators' preferences which, in turn, brings the values of interbranch divergence for each hypothetical example closer together.

In sum, I create a measure of interbranch divergence that is comparable across legislative terms and countries. Empirically, interbranch divergence takes values between 0 and 2.5, where higher values indicate more ideological divergence between the president and the median legislator.

4 | BUDGETARY INSTITUTIONS

In order to assess how budgetary rules determine the extent to which a legislative median influences the allocation of government expenditures, I categorize budget institutions based on the three features described earlier: (1) the reversion budget, which can be the presidential initiative, the budget for the previous year, or zero spending; (2) the possibility of introducing amendments when the budget proposal is under consideration in the legislature; and (3) whether the president has a strong veto, a weak veto, or no veto at all. When it comes to amendments, I focus on those allowing legislators to increase or decrease specific spending categories and not on amendments that increase the total size of

expenditures or deficit, which have been the focus of previous research (e.g., Alesina et al., 1999). Given that the outcome variable takes into consideration changes for a budget category, restrictions to amending the total size of the budget does not necessarily impact changes to a single budget category.

Centering on the 12 democracies in Latin America included in the study, in five of them, the reversionary budget is the executive's proposal, in eight spending reverts to the previous year's levels, and in one of them, the government cannot make any expenditures. Regarding the introduction of amendments, in two countries—Chile and Colombia—legislatures have no or limited capacity to amend the budget proposed by the executive. Finally, six presidents are empowered with a strong veto, three with a weak veto, and three presidents, otherwise entitled to a veto power, are not allowed to exercise it when it comes to the budget.

Instead of creating an index based on the three key features of the budgetary process—reversion, amendment, and veto—I consider their interaction to evaluate the influence of a legislative majority on policy outcomes. As explained earlier, I classify institutions as regimes that vary from those that provide *legislative* override, to those that incentivize interbranch bargaining model, to those in which the legislature can only accept the executive's agenda (see Table 1). From the sample of countries, 34% of the legislatures are advantaged vis-à-vis the executive, 41% of the legislatures have a bargaining toolbox with which to confront the executive branch, and the remaining 25% of the assemblies are marginalized from the budgetary process.

As a reminder, let me summarize the intuition behind the interaction of these three institutional features. First, the majority in the legislature is powerful when it can amend the executive's proposal and the president has a weak veto or no veto at all. In these instances, the reversion point becomes irrelevant because the president cannot provoke a stalemate so that her budget proposal or the previous budget come into effect. This

scenario captures the cases of Costa Rica, Honduras, Mexico, Nicaragua, and Paraguay. 17

The second category of institutions distribute power between the assembly and the president so legislators will be able to influence the distribution of expenditures but with some limitations. The spending decisions might reflect some of the legislators' preferences as the legislature can amend the president's proposal; the president can meaningfully threaten to veto their changes, but the reversion point should the stalemate persist is not necessarily a budget that reflects the interests of only one branch. This category includes Argentina, El Salvador, Guatemala, and Uruguay.

Finally, the legislative median is marginalized from the budget process when it has limited power to amend and the reversion point is the president's proposal. This combination of institutions can be found in Chile and Colombia. Assemblies can also be marginalized when the executive is able to provoke a stalemate, with a strong veto, and the solution to that stalemate is reversion to the executive's proposed budget. Even when the legislature has the right to amend the president's proposed spending and revenue decisions as it sees fit, the president can resort to a strong veto (or veto threat) if she finds any changes unacceptable. A veto would force the legislature to try to assemble a supermajority, increasing the size of the group needed for approval to reject the veto. Bolivia has an institutional design of this type.

Let me turn now to the empirical modeling strategy and results.

5 | STATISTICAL ANALYSIS AND FINDINGS

The critical implication of my theoretical argument is that, conditioned on the ideological divergence between the median legislator and the president, legislative majorities should have higher levels of success if

TABLE 1	Combinations of budget institutions in Latin America.

Models of budget institutions	Budget reversion	Legislative amendment	Veto strength	National cases
Executive agenda setting	Executive's proposed budget	None/Limited	Strong	Chile
			Weak	Colombia
		Unrestricted	Strong	Bolivia
Legislative override			Weak	Nicaragua, Paraguay
Interbranch bargaining	Previous year's		Strong	Argentina, El Salvador, Guatemala, Uruguay
Legislative override	Budget extended		Weak	Costa Rica, Honduras, Mexico

Note: To build the table, I collected information from constitutions and legal statutes. See the Online Appendix for references to the specific constitutional and law articles, and a complete table including all 18 Latin American democracies. In Mexico, there are no written provisions for the budget reversion. Although there is a legal debate on this matter, the two possible budget reversions could be zero spending or the previous year's budget. The classification of the Mexican budget institutions is Legislative Override for both budget reversions.

the legislative majority is able to override the executive, they should have relatively lower levels of success if the institutional rules incentivize interbranch bargaining, and the lowest levels of success should appear if the executive is able to make a take-it-or-leave-it proposal to the legislature.

To evaluate this hypothesis, I define a Hierarchical Binomial probability model of the number of majority successes for each legislative period. As discussed, the outcome variable Y_i captures the legislative majority's Success at shaping patterns of expenditures for n categories—Education, Health, Social Security, and Defense—during each legislative term i. In other words, for each legislative period i, legislators have n opportunities to reduce or increase budget allocations, hence, I model the proportion of successes,

$$Y_{ij} \sim Bin(p_{ij}, n_i)$$

To model the institutional design directly, I specify varying-intercepts for the three budget institutional designs: Legislative Override, Interbranch Bargaining, and Executive Agenda Setting. I also specify varying-slopes by institutional design across values of Interbranch Divergence between the legislative median and the president by legislative terms. The Hierarchical Bayesian modeling strategy permits me to address multiple comparisons between institutional designs, yielding reliable estimates for each type of legislature. It also addresses the potential problem of treating repeated trials of the outcome variable as independent within institutional design (Gelman & Hill, 2006; Gill, 2007). More formally, for each count of instances in which the median preference prevails, Yii, the regression model can be written as.

$$\begin{split} p_{ij} &= \Phi \bigg(\alpha_{j[i]} + \beta_{j[i]} \text{Interbranch Divergence}_i + \pmb{X}_i \gamma \bigg) \\ & \left(\begin{array}{c} \alpha_j \\ \beta_j \end{array} \right) \sim \mathcal{N} \Bigg(\left(\begin{array}{cc} \mu_\alpha \\ \mu_\beta \end{array} \right), \left(\begin{array}{cc} \tau_\alpha^2 & \rho \tau_\alpha \tau_\beta \\ \rho \tau_\alpha \tau_\beta & \tau_\beta^2 \end{array} \right) \Bigg) \end{split}$$

where Φ denotes the standard normal cumulative distribution function, j indexes the institutional design and i the legislative terms, and the covariate *Interbranch Divergence* varies across legislative terms i. In the data, there are a total of 129 opportunities to reduce or increase budget allocations across 33 legislative terms and three institutional designs. ¹⁸

The control variables are denoted by the matrix of covariates \boldsymbol{X}_i in the model equation. The model includes one control variable, *Bicameralism*, which takes a value of one when the upper chamber is required to approve the budget, and a value of zero when the legislature is unicameral or the upper chamber does not participate in the approval of the budget. Recall that Salamanca does not survey upper

chambers so I cannot model the preferences of their members directly. As the outcome variable measures the success of the legislative median in the lower chamber, an upper chamber can constrain the legislative median's ability to influence government expenditures. After all, the reconciliation mechanisms available in bicameral legislatures and the level of ideological divergence between chambers affect how representatives eventually decide to distribute scarce government resources (Ansolabehere et al., 2003; Kalandrakis, 2004; Lee, 2004; Shepsle et al., 2009). Seven out of the 12 countries under study—Argentina, Bolivia, Chile, Colombia, Mexico, Paraguay, and Uruguay—have bicameral legislatures and all of them—except for Mexico—require both chambers to sign-off the budget proposal (Table A1).

I specify weakly informative prior distributions for all parameters, which, multiplied with the data likelihood, yield the full posterior distribution. Following the suggestion of Gelman (2006) for setting priors when the number of groups is small, I specify half-Cauchy distributions with a scale of 25 for variance parameters. Formally, the priors are,

$$\begin{split} & \mu_{\alpha} \sim \mathcal{N}(0, 10) \quad \mu_{\beta} \sim \mathcal{N}(0, 10) \quad \gamma \sim \mathcal{N}(0, 10) \\ & \tau_{\alpha} \sim \mathcal{C}_{\text{half}}(5) \quad \tau_{\beta} \sim \mathcal{C}_{\text{half}}(5) \quad \rho \sim \textit{Unif}(-1, 1) \end{split}$$

There are several advantages to employing a Bayesian framework. First, although a Hierarchical Binomial model would effectively increase the degrees of freedom (as there are n_i opportunities of being successful in every legislature term), the number of legislative terms in the analysis are far from the number of observations under which maximum-likelihood estimators are consistent. Bayesian inference, however, does not rely in asymptotic justifications and large sample sizes, providing reliable and accurate estimates (Gelman et al., 2004; Gill, 2007).

To obtain estimates of all relevant parameters, I implement a Bayesian MCMC estimation procedure in JAGS, running it in three chains for 650,000 times, disposing of the first 350,000 iterations. Evaluating standard non-convergence diagnostics—Geweke, Gelman-Rubin, and Heidelberger-Welch-I did not find evidence of non-convergence in any of the Markov chains. Table A2 presents the findings. I include the medians of the posterior probability distribution of the parameters of interest, along with their corresponding 90% credible intervals. These empirical results remain robust after considering two alternative measures of interbranch divergence 19 and performing extensive cross-validation. Specifically, I reestimated the model multiple times, each time removing one legislative term, one country, or one spending category. The results remained consistent across all these iterations, indicating that no single case is disproportionately influencing the results.

Rather than presenting and discussing the coefficients from the model results, I proceed to discuss changes in probabilities (King et al., 2000).

5.1 | Comparing institutions as interbranch divergence increases

Analyzing the effect of institutional design as interbranch divergence varies, Figure 3 illustrates the predicted probability of success under the three budget institutions. In a setting of Legislative Override, the majority has high probability of success (0.70) when the ideological position of the median legislator and the president are very similar, and it slightly increases (0.72) when interbranch divergence takes its maximum. In an Interbranch Bargaining institutional design, on the other hand, while the probability of success is also high when the median legislator and the president have similar views (0.70), it sharply decreases 0.41 points when interbranch divergence takes its maximum value. In an Executive Agenda Setting institutional design, changes in interbranch divergence have a smaller impact on the success of the legislators: when the median legislator and the president converge the probability of success

of a majority is 0.43, and it decreases to 0.38 when they diverge the most. Overall, as expected, as the median legislator and the president ideologically diverge, the probability of success sharply declines only if the approved budget results from the bargaining of the two branches of government, while if budgetary rules completely favor the legislature the median is be able to set her most preferred policy at different levels of interbranch divergence.

Studying the impact of changes in institutional design on the outcome variable, Figure 4 presents the conditional first difference probability of success along with a 90% HDI. As interbranch divergence increases, moving from an Executive Agenda Setting to a Legislative Override institutional design increases the probability of success of the legislative majority (see Figure 4, left panel). If the median legislator and the president converge, as expected, there is no credible difference in the probability of success between institutions, but there is a credible difference in the probability of success as interbranch divergence increases over a value of 0.51—which is a low value of interbranch divergence because value go from 0 to 2.5.

Moving from a Interbranch Bargaining to a Legislative Override setting, the difference probability

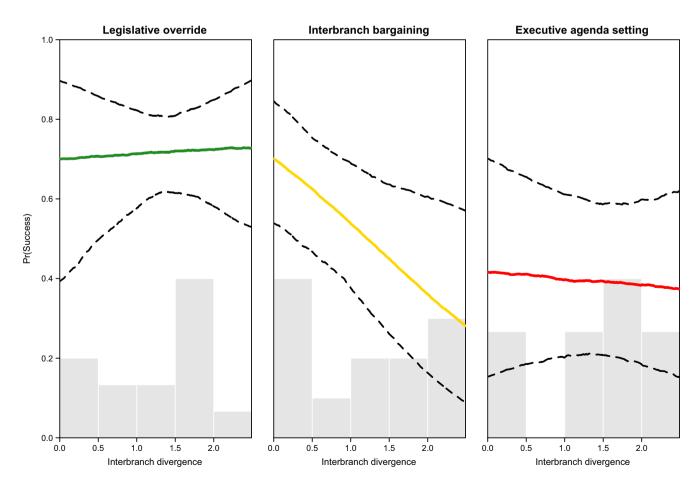


FIGURE 3 Predicted probability of success given different budget-making institutions. 90% Credible intervals are included. Histograms in the background show the distribution of interbranch divergence under each type of institution.

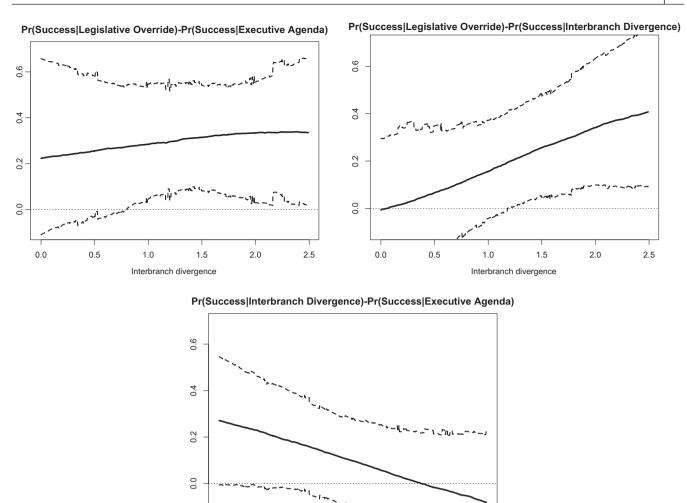


FIGURE 4 First differences for increasing levels of interbranch divergence. 90% HPD intervals are included.

0.5

1.0

Interbranch divergence

15

2.0

2.5

0.0

of success of the majority rapidly increases as interbranch divergence increases (see Figure 4, middle panel). As expected, for lower values of interbranch divergence, there is not a credible difference between these two institutional designs. But if interbranch divergence takes values higher than 1.35—a value close to the median divergence, 1.5—budgetary institutions have a credible impact on the success of a legislative majority because the 90% HDI for the difference probability of success does not include zero. More specifically, the probably of success can be, on average, 0.2–0.4 points higher in a Legislative Override institutional design than in a Interbranch Bargaining design.

Finally, as interbranch divergence increases, the difference between the probability of success of a majority in a Interbranch Bargaining and in an Executive Agenda Setting designs diminishes (see Figure 4, left panel). For relatively low values of interbranch divergence, a majority in a Interbranch Bargaining setting

has a higher probability of success than in a Executive Setting Agenda setting. For the highest values of interbranch divergence, on the other hands, this difference in probability is very close to zero. However, even though the findings are in line with the theory, there is no credible difference between the probability of success in these institutional designs because the 90% HDI includes zero.

All in all, Figures 3 and 4 illustrate the impact of variations in separation of power systems on how successful a legislative majority is in shaping budget allocations. When the president and the median legislator converge, there is not a significant difference across institutional designs. As expected, agreement between the branches of government drives a legislative majority's success in shaping budgetary outcomes. As interbranch divergence increases, however, the probability of success of a majority is considerably higher if constitutionally allocated powers allow legislative autonomy than if they do not.

6 | CONCLUSION

Analyzing when democratically elected legislators can successfully shape budget allocations is crucial for understanding the consequences of political institutions. The prevailing argument in the literature on separation of powers systems is that, except for the United States, legislative majorities generally struggle to influence policy outcomes. Legislatures in presidential systems are often perceived as overshadowed by the U.S. Congress, with the belief that none of them "approaches the consistent policy strength of the U.S. Congress" (Morgenstern, 2002, p. 8). This view is theoretically grounded in the notion that executives possess formal powers enabling them to influence legislative behavior or even make unilateral decisions.

This study challenges this contention through a theory and empirical evaluation based on 12 Latin American democracies over 33 legislative periods. The findings predict that under specific combinations of constitutionally allocated powers, a parliamentary majority can effectively translate its spending preferences into the budget. By demonstrating these conditions, this research provides a new perspective on the dynamics between legislative majorities and executive powers in shaping policy outcomes across presidential democracies. Additionally, the theoretical underpinnings of this study can be extended to the broader policymaking process or other measures of executive authority, such as executive decrees, offering a comprehensive framework for analyzing legislative influence in varied political contexts.

The findings presented in this study have significant implications for the quality of representation. They suggest that representatives' ability to fulfill their electoral mandates depends on the institutional rules governing the policymaking process. Legislators who are at odds with the executive will find it easier to implement their mandates in systems that provide legislative autonomy rather than those that constrain it. Moreover, empirical research indicates that the policy position of the median legislator often closely aligns with that of the median citizen (Golder & Stramski, 2010; Johnson & Crisp, 2003; Powell, 2000). Therefore, government expenditures decided under institutional designs that favor the preferences of the median legislator should more accurately reflect the views of the median voter. This underscores the importance of designing institutions that enhance legislative autonomy to ensure that policy outcomes are representative of the electorate's preferences.

Finally, this research lays a foundation for understanding how institutional provisions not only shape policy outcomes, but it also opens several avenues for further research. For instance, incorporating the role of legislative parties was beyond the scope of this study, as I relied on the traditional assumption that parties yield

influence over policy outcomes because of the high degree of correlation between legislators' preferences and partisanship (Kingdon, 1973). However, in countries in which the legislature has considerable power in the budget-making process, presidents or legislative parties could have other resources at their disposal to influence legislators and thus, budget outcomes. Future studies could relax this assumption and focus on the interplay between electoral systems, party politics, and institutional provisions. While this article offers a systematic analysis of impact of political institutions across countries, it acknowledges that no single factor can fully capture the complexity of real-world policymaking. Therefore, future work should aim to integrate these additional dimensions, providing a more comprehensive understanding of the factors driving budgetary decisions.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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ENDNOTES

- ¹Recent findings presented by Krause and Melusky (2013), however, reveal that government expenditures increase more under a budgetary process dominated by the executive than when power is shared between the executive and the assembly.
- ²The budgeting process starts with the formulation of the budget in the executive branch, then the presentation and approval by the assembly, and finally, the implementation by the bureaucracy. This article will focus on the second stage—presentation and approval—where major negotiations between the executive and the legislature take place.
- ³ For the two other reversion provisions, it is not a likely strategy. It is doubtful the executive branch will want to trigger a zero spending reversion without even attempting to introduce a proposal. For the executive's proposal as the reversion scenario, the president is required to submit her proposal.
- ⁴See the Appendix for a complete classification.
- ⁵Analyzing the direct impact of legislative parties on spending allocations is beyond the scope of this study. Instead, following a number of studies, I consider that parties yield influence over policy outcomes because of the high degree of correlation between legislators preferences and partisanship (Kingdon, 1973).
- ⁶The USAL surveys have been used in numerous research. See for instance Luna and Zechmeister (2005), Saiegh (2009) and Carnes and Lupu (2015).
- ⁷ In the broad majority of the surveys, every respondent answered the four questions about spending on Education, Health, Social Security, and Defense. In the few cases in which some respondents do not answer the question, the amount of missing data is

- not sufficient to change the coding of the measure. In other words, if the median preference is to *increase* spending, even if all the missing data were to refer to *decrease* spending, the median response would still be to *increase* spending.
- ⁸For a detailed list of countries and legislative terms, see the Appendix. Due to lack of complete data on government expenditures for the Dominican Republic, Ecuador, Panama and Peru, I could not include these cases in the analysis.
- ⁹The government expenditure data on Education, Health, and Social Security comes from the database by Huber et al. (2008)—which I extend from 2006 to 2010 using CEPAL's Social Indicators and Statistics Database, the same source used by Huber et al. (2008)—and the data on Defense comes from SIPRI's Military Expenditure Database.
- ¹⁰ A few legislatures approve the budget for their first legislative year while most of them have to work with a budget approved by the previous legislature.
- ¹¹ In Costa Rica, the survey did not ask about spending on Defense because it does not officially have a military.
- ¹²See the Online Appendix for more information.
- ¹³For instance, in Colombia, amendments need to be approved by the Finance Minister before being put to a vote in the legislature.
- ¹⁴The presidents of Costa Rica, Honduras, and Mexico cannot veto the budget. However, presidents might still attempt to subvert the rules, particularly in these cases in which they lack influence over the budgets. In Mexico, although the constitution states that the president can only veto bills that require the approval of both chambers, in 2005, the president vetoed the appropriations resolution which only requires the approval of the lower chamber. After an interbranch stalemate regarding the veto, the Constitutional Tribunal decided to uphold it. This decision is questioned still today and there is still uncertainty to whether the president is empowered to veto a budget. Another example is that of the Honduran president, who reintroduced an article in the final Budget Law that the legislators had removed before approval. This was hardly constitutional, since the president has no veto or decree authority, and must accept the budget approved by congress. The classification on Table 1 follows the constitutional and legislative provisions and does not consider situations like those just described.
- ¹⁵Previous literature has constructed indices or rankings of institutional features, such as Shugart and Carey (1992), Payne et al. (2002).
- ¹⁶ For simplicity, instances when a simple majority can override a veto are considered most similar to those in which the president has no veto power.
- ¹⁷Theoretically, a legislature with limited or no capacity to amend the budget can be powerful if the reversionary budget is detrimental to the executive as they can leverage a stalemate to extract concessions from the executive. Empirically, there is no case among the Latin American democracies.
- ¹⁸Three terms are for Costa Rica and there is no defense allocation in the budget, so are only three instead of four spending categories.
- ¹⁹I considered a measure of *relative* divergence used by Golder and Stramski (2010) to study elite-citizen congruence in European democracies and also the absolute distance between the median legislator and the president. In terms of cross-validation, see the Online Appendix for detailed information on the measures.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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APPENDIX

TABLE A1 Countries and legislative terms included in the analysis.

Country	Legislative periods
Argentina	1997–1999; 2003–2005; 2007–2009
Bolivia	1997–2002; 2002–2006; 2006–2010
Chile	1998–2002; 2002–2006; 2006–2010
Colombia	1998–2002; 2002–2006; 2006–2010
Costa Rica	1998–2002; 2002–2006; 2006–2010
El Salvador	1997–2000; 2000–2003
Guatemala	2000–2004; 2004–2008; 2008–2012
Honduras	1997–2001; 2002–2006; 2006–2010
Mexico	1997–1999; 2000–2002; 2003–2005
Nicaragua	1996–2001; 2001–2006; 2007–2011
Paraguay	1998–2003; 2003–2008
Uruguay	2000–2005; 2005–2010

TABLE A2 Summary statistics for posterior distributions of coefficients in a model (median and 90% credible intervals).

90% CI	Estimate	SE	90% CI
$\alpha_{j=\text{LegislativeOverride}}$	0.54	0.61	-0.53, 1.53
$lpha_{j=InterbranchBargaining}$	0.53	0.28	0.08, 1.00
$\alpha_{j=ExecutiveAgendaSetting}$	-0.17	0.43	-0.94, 0.54
$eta_{j=Legislative}$ Override	0.03	0.47	-0.95, 0.84
$eta_{j=InterbranchBargaining}$	-0.43	0.20	-0.79, -0.09
$eta_{j=ExecutiveAgendaSetting}$	-0.05	0.17	-0.40, 0.34
μ_{lpha}	0.33	0.96	-1.19, 1.92
μ_{eta}	-0.19	0.44	-0.94, 0.54
ρ	-0.30	0.70	-0.95, 0.84
$ au_lpha$	1.75	9.16	0.08, 82.38
$ au_{oldsymbol{eta}}$	4.38	2.77	0.17, 380.63
Bicameralism	-0.07	0.31	-0.58, 0.44

Note: The outcome variable is the proportion of successes out of n_i trials (corresponding to budget categories) per legislative term i. Number of institutional rules j: 3. Number of legislative terms: i: 33. Number of spending categories: 129.