


# The Executive Toolbox: Building Legislative Support in a Multiparty Presidential Regime

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## Abstract

How do presidents win legislative support under conditions of extreme multipartism? Comparative presidential research has offered two parallel answers, one relying on distributive politics and the other claiming that legislative success is a function of coalition formation. The authors merge these insights in an integrated approach to executive-legislative relations while also considering dynamism and particular bargaining contexts. The authors find that the two presidential “tools”—pork and coalition goods—function as imperfect substitutes. Coalition goods establish an exchange baseline, while pork covers the ongoing costs of operation. Pork expenditures also depend upon a president’s bargaining leverage and the distribution of legislative seats.

## Keywords

multiparty presidentialism, legislative support, pork, Brazil

In the early 1990s, the critique of presidentialism advanced by Linz (1994) and others was widely influential, and the coexistence of presidentialism with multipartism was viewed as a particularly “difficult combination.” Multipartism was expected to exacerbate the “perils of presidentialism” by increasing the probability of deadlock in executive-legislative relations, promoting ideological polarization, and making interparty coalition building difficult to achieve (Mainwaring 1993; Stepan and Skach 1993). The best chance for the survival of presidential democracies, it was argued, lay in the adoption of a two-party format, which would reduce polarization, obviate coalitional politics, and promote governability. Yet multiparty presidentialism was here to stay. This unanticipated outcome has raised questions about how presidents have managed this “difficult combination.” That multiparty presidential democracy is sustainable is now beyond dispute, yet we lack a comprehensive explanation for this durability. This paper aims to extend and refine recent models of multiparty presidentialism by adopting a wider perspective on the “tools” available to presidents who face fragmented legislatures.

Institutional approaches to these questions have produced promising evidence. As Shugart and Carey (1992) anticipated, institutions that help lubricate the machinery of government often appear when constitution writers have reasons to believe that governability will be difficult. As a result, the structure of multiparty presidentialism

does not preclude the formation of coalition governments. Quite to the contrary, as Cheibub (2007, 50) observes, “There is a range of possible scenarios in presidential systems where presidents will make coalition offers and parties will find it in their interest to accept them.” Coalition presidencies have in fact proven unexpectedly functional and durable (Cheibub, Przeworski, and Saiegh 2004) while becoming the modal form of democracy in Latin America.

In what follows, we first note problems with applying theoretical models designed primarily for parliamentary regimes directly to separation-of-powers regimes. We then build on extant research concerning legislative support in multiparty presidential systems. In so doing, we integrate two separate institutional arguments about how presidents solve the “governability equation” under multipartism. The first of these arguments holds that presidents win support via distributive politics, particularly through the targeted transfer of pork to legislators (e.g., Ames 2001).

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The second of these arguments (familiar to students of parliamentary government) claims that presidents secure legislative support through the judicious allocation of cabinet portfolios and other such “coalition goods” (e.g., Amorim Neto 2002). Beyond integrating these two approaches, we also complete the picture by adding considerations of dynamic endogeneity and context. After a brief overview of the Brazilian case, we examine differences in executive strategy among recent Brazilian presidents. Empirical analyses support a view of pork and coalition goods as substitutable resources.<sup>1</sup> Coalition goods establish an exchange baseline, while pork covers the ongoing costs of operation. Pork expenditures also depend upon a president’s bargaining leverage and the distribution of legislative seats. We offer a case study on pension reform to illustrate how these relationships work in practice.

### Coalition Presidents and Policymaking

Models of coalition formation in parliamentary regimes double as explanations for legislative support of executive policy positions. These models typically, though often implicitly, rely on assumptions straight from the theory of responsible party government: Strong, disciplined parties provide legislative support in exchange for spots in the formal pro-government coalition and for cabinet seats. Some models focus almost exclusively on the relative sizes of parties in the legislature, with either purely proportional cabinet pay-offs for parties in the government coalition (e.g., Morelli 1999; Montero 2003; Morelli and Montero 2003) or basically proportional pay-offs with a bonus for the *formateur*, or coalition-proposing, party (Baron and Ferejohn 1987; Ansolabehere et al. 2005; Snyder, Ting, and Ansolabehere 2005).

Other models have attempted to explain which parties in particular will appear in the government coalition (for summaries see Laver 1998; Martin and Stevenson 2001).<sup>2</sup> By adding consideration of party ideology to party size, these models acknowledge that support may come at lower cost from certain parties. Often, a rational *formateur* attempts to assemble a coalition just large enough to pass legislation but with maximum ideological agreement. The idea behind a “minimal connected winning coalition” (Axelrod 1970) or a minimal winning coalition with the smallest possible ideological range (de Swaan 1973) is that such a coalition provides for legislative success while also minimizing intracoalitional transaction costs. Veto players theory (Tsebelis 2002) has also incorporated this logic concerning ideology. A larger number of veto players typically makes policy change from the status quo more difficult as preference overlap shrinks. Simply summarized, this literature proposes that disciplined

political parties provide legislative support in return for inclusion in the government.

Such explanations of coalition formation and policy-making, based as they are on the constellation of Western European parliamentary regimes, prove less than ideal when applied to multiparty presidential regimes. The separation of powers makes the emergence of anything resembling responsible party government unlikely. Here, the *formateur* (the president) must reach across institutional barriers meant to complicate cooperation. Electoral systems that reward particularistic benefits (e.g., pork) for local districts, like the single-member district rules in the United States or open-list proportional representation systems in federal regimes like Brazil, further erode the influence of party leadership and can reduce the importance of ideology.

What happens, then, if parties are weaker and less disciplined and ideological preferences are not necessarily the primary determinant of voting decisions? In some presidential regimes, the lack of party loyalty and discipline means that a minimal “winning” coalition may not be enough to win consistently over time. Minimal winning coalitions are also suspect in that they give inordinate power to smaller coalition parties, which can become hostage takers. As a consequence, a *formateur* may find it cheaper to assemble supermajorities that are not vulnerable to other vote buyers and in which no single partner can envision itself as the leverage point (Grosche and Snyder 1996). In response to such concerns, two separate approaches have emerged to explain how the executive boosts voting discipline and buys additional votes in order to cobble together winning coalitions in multiparty, coalition-based presidential systems.

The first approach recognizes that the success of multiparty presidentialism, with its fixed terms and lack of confidence votes, largely depends on what happens on a day-to-day basis during the executive’s constitutional term of office. The executive uses particularistic benefits on an ongoing basis to overcome ideological resistance in generating legislative support. Pork is exchanged for votes in multiparty presidential systems like Brazil (Ames 2001; Pereira and Mueller 2004; Alston and Mueller 2006; Alston et al. 2008). As legislators are well aware, this access to budgetary resources increases the likelihood of their political survival (Ames 1987; Samuels 2002; Pereira and Renno 2003).

A second approach—roughly echoing parliamentary theories—has emphasized that coalition goods such as positions in the pro-government coalition and cabinet are strategic resources available to presidents (Martínez-Gallardo 2005). This approach has examined how executives may construct coalitions and cabinets in ways that maximize legislative support, even with weak and undisciplined parties. In brief, executives are more successful

in obtaining support when constructing majority cabinets that minimize the presence of nonpartisan ministers and that distribute cabinet seats proportionally among coalition members (Amorim Neto 2002, 2006; Negretto 2006). Executives may also redesign the internal structure of the presidency itself, using staffing and organizational reforms in ways that resemble the allocation of ministerial posts (Inácio 2006).

In summary, then, current research on executive-legislative exchange under multiparty presidentialism has two prongs. Legislative support is separately a function of coalition goods and pork. As compared to the traditional parliamentary approach, this view incorporates more fluid ideology and the need for frequent exchange.

### The Case of Brazil

Brazil represents an ideal case for considering the roles of both pork and coalition goods in executive-legislative exchange. Largely as a consequence of its open-list proportional representation electoral system and its federal structure, Brazil has a highly fragmented party system (Mainwaring 1999) in which pork is very valuable. The reduced importance of ideology, evident in the party-switching behavior of legislators (Melo 2004; Desposato 2006), only adds to the value of pork. An executive must exchange robustly with the legislative branch but has many potential partners for doing so.<sup>3</sup> Furthermore, this exchange must be ongoing. While parties in the pro-presidential coalition frequently vote with the announced position of party leaders in the aggregate (Figueiredo and Limongi 2000), coalition discipline is far from perfect (Ames 2002; Amorim Neto 2002). Brazilian executives must build legislative support almost from scratch with each new controversial proposal (Samuels 2000).

Just as significantly, the institutional tools and resources available to the Brazilian executive are substantial enough to help correct for minority status and party fragmentation (Figueiredo and Limongi 1999; Amorim Neto, Cox, and McCubbins 2003). The Brazilian executive's toolbox is chock-full. Among other strategic resources, the Brazilian executive controls the disbursement of pork to legislators through the execution of individual and collective budgetary amendments and establishes the characteristics of her governing coalition (subject, of course, to certain constraints). The executive establishes the heterogeneity and size of the coalition and determines the proportionality of partisan representation within the cabinet, outcomes we refer to as "coalition goods." Recipients of these goods may enjoy benefits such as improved ideological satisfaction, electoral advantages, prestige, enhanced representation, and greater checks on executive power.<sup>4</sup>

### The Presidential Toolbox: Integration and Dynamism

We have two primary objectives in advancing institutional research on executive-legislative exchange in multiparty presidential systems. The first is to consider jointly the influence of pork and coalition goods on legislative support. Executives implement strategies that utilize multiple tools in their toolboxes. We have no reason to believe that executive decision-making processes or the effects of these different tools are independent. Thus, the current picture of executive-legislative exchange is incomplete. We aim to widen the analytical lens by integrating and merging the pork argument and the coalition goods argument.

Our second objective is to model dynamism in this system, including temporal factors that shape the relationship between coalition goods and pork. The distribution of coalition goods like cabinet seats precedes the distribution of pork. This temporal precedence creates something of a disconnection between coalition goods and legislative support. In fact, our data show a relatively weak and *inverse* relationship between the size of a president's coalition (i.e., the number of legislative seats in the lower house) and aggregate legislative support in Brazil.

We propose that this temporal ordering and the fluidity of pork lead to different roles for pork and coalition goods. After establishing a baseline for exchange with the distribution of coalition goods, executives can use pork to deal with ongoing legislative needs. The coalition goods represent a sunk cost in this business relationship, while pork represents the everyday operating expenses. The tools work in different ways to produce legislative support.

How, then, should we expect these tools to interact? In the case of Brazil, legislators derive substantial positive utility from both pork and coalition goods. Consequently, the two become imperfect substitutes in the political marketplace. Executives consider this substitutability when devising legislative strategies. Empirically, we should observe coalition goods being offered as a substitute for pork and vice versa. However, given the sunk-cost nature of coalition goods, we expect that pork drives the month-to-month marginal variance in legislative support.

We also propose that popular support for a president influences legislative support indirectly by shaping pork expenditures. The president may rely on popularity to put pressure on or "persuade" the legislature, as in Neustadt's (1960) seminal arguments about a president's professional reputation (i.e., respect among other political elites) and public prestige (i.e., popularity with the public). However, the more personalistic rather than partisan nature of legislative elections in Brazil tends to attenuate the linkage between legislators and the president in the minds of voters. So instead of observing a direct impact of popularity

on legislative support, we expect the price of legislative support to drop marginally as the cost of opposing a popular executive increases. Similarly, we anticipate that an executive's "lame duck" status leaves the executive with little bargaining leverage. The imminent departure of a president should decrease the effectiveness of pork and require greater expenditures. Both of these variables attempt to gauge how expensive it is for legislators to say "no" to the president: more expensive when the president is riding high in the polls, less so when he is a lame duck.

Another important feature of this dynamic system is that the relationship between pork and legislative support is a reciprocal one. Legislators provide support after receiving pork, while presidents also reward legislators for their support in a post hoc manner (Pereira and Mueller 2004; Alston and Mueller 2006). We explicitly model the dynamics of this reciprocal relationship. Pork expenditures should affect future legislative support, which in turn should affect future pork expenditures. Modeling this reciprocal relationship also requires controlling for momentum in legislative support over time. Even in a relatively weak ideological environment, ideology should contribute to some stability in legislative support. Furthermore, executive distribution of resources (and especially coalition goods) should have effects on legislative support that do not erode immediately. Pork expenditures should exhibit a similar momentum over time, since legislators come to expect a baseline of particularistic monetary benefits as pork distribution becomes bureaucratized and routine.

We describe a political environment in which legislative voting is unreliable and fragmented but in which an executive has multiple institutional tools at her disposal to build winning coalitions on an ongoing basis. The political context assumes added importance in such an environment. For example, does the executive have the option of forging a large coalition given the distribution of parties and preferences in the legislature? If so, she can concentrate on firming up support and discipline within the coalition using pork and an equitable distribution of cabinet seats. If not, an executive also must direct substantial resources outside the formal coalition to build majorities. Consequently, while overall patterns of exchange may stay rather consistent, the particular tactics used by individual executives may vary based on conditions.

In sum, our approach simultaneously integrates and moves beyond previous lines of research on legislative support under multiparty presidentialism. An executive uses both coalition goods and pork in an interactive manner to trade for legislative support. An executive uses coalition goods to establish a baseline for exchange and uses the more fluid pork to make ongoing adjustments and to produce marginal changes in legislative support.

Pork and legislative support respond to one another in this system of exchange. The bargaining context serves as an input for executives when making decisions about this interactive resource distribution.

## Recent Brazilian Executives

All Brazilian presidents since 1988 have possessed roughly the same institutional tools but have faced different bargaining conditions and have employed different tactics in the pursuit of legislative success. One was memorably unsuccessful. President Fernando Collor governed with ad hoc coalitions and minority support in the Chamber of Deputies (the lower legislative house) from March 1990 to October 1992. Collor's tactical choices proved unsustainable and contributed to his eventual impeachment and removal (Weyland 1993; Figueiredo forthcoming).

The first president included in our quantitative analysis, Fernando Henrique Cardoso (1995-2002), had palatable options for creating large coalitions.<sup>5</sup> Consequently, he governed in a way that more resembled a parliamentary agenda cartel (Amorim Neto, Cox, and McCubbins 2003). After his first year in office, Cardoso's focused center-right coalition included almost 75 percent of the Chamber of Deputies. Cardoso rewarded coalition parties with cabinet seats in a highly proportional way (except for his lame-duck final year as president) and sent a relatively small proportion of pork outside the formal coalition.

The president who followed, Luiz Inácio "Lula" da Silva (2003-present), was in various ways dealt a more difficult hand. Crafting a large, homogeneous coalition would not be possible given the distribution of preferences in the Congress. Even Lula's own leftist Workers' Party (PT) exhibited serious internal fractures, which the conservative fiscal policies Lula needed to pursue would worsen. These policies would require constitutional amendments and 60 percent supermajority voting support in the legislature. However, Lula governed during his first year with a minority coalition in the Chamber—a situation that joined with the difficult bargaining conditions in contributing to the *mensalão* corruption scandal that followed (Pereira, Power, and Raile forthcoming).

Lula would need to firm up interior support with coalition goods and attract support from opponents with pork. He increased dramatically the number of ministerial portfolios and used the new posts to satisfy factions within the PT. Simultaneously, Lula sent a large proportion of the pork outside the formal coalition as an inducement for his typical ideological opponents.<sup>6</sup> Lula's cabinet became even less proportional upon adding the large PMDB to the coalition with little cabinet compensation in December 2003, though Lula did keep a much larger proportion of the pork within the coalition after that time.

## Data and Method

The data set used in this analysis consists of monthly data for the years 1997-2005, thereby including seventy-two months in which Fernando Henrique Cardoso served as president and thirty-six months in which Luiz Inácio Lula da Silva was the Brazilian chief executive (see the appendix at <http://prq.sagepub.com/supplemental/> for a summary of variables used in this analysis). Our method of data analysis is three-stage least squares regression (Zellner and Theil 1962), which combines features of seemingly unrelated regression and two-stage least squares regression in estimating a system of equations. Executive-legislative exchange in Brazil is complex and dynamic in ways that make single equations less than ideal. The seemingly unrelated regression features address correlated disturbances across the equations.<sup>7</sup> The two-stage least squares features address reciprocal causation among some of the variables and the endogenous nature of strategic choices made by the executive.

Three-stage least squares treats dependent variables and any other specified endogenous variables as correlated with the disturbances in the system of equations. Remaining variables are considered exogenous and all are used as instruments in a set of first-stage regressions to “clean” the endogenous variables, much like one sees with the more familiar two-stage least squares. Three-stage least squares also accounts for variables that are simultaneously determined with dependent variables. Taken in conjunction, these features allow direct mapping from executive decision making to our empirical specification.

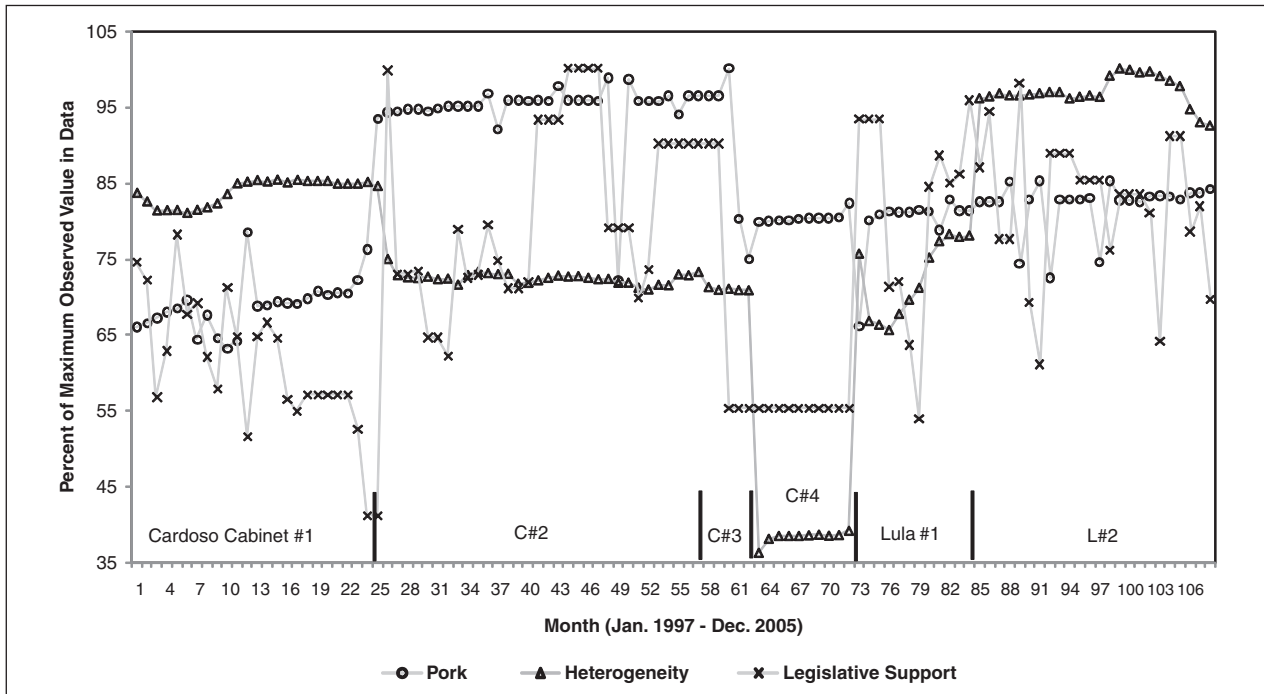
We use four equations to establish a fuller picture of executive strategy and effects on legislative support. Three of the equations have dependent variables that appear as independent variables (sometimes lagged) in other equations in the system, which is common with equations being analyzed with three-stage least squares. The reciprocal relationship between legislative support and pork also necessitates multiple equations like one would see with two-stage least squares. While the simultaneously estimated final-stage specifications are different for each equation, the first-stage regressions all use the same full set of exogenous variables.

The dependent variable of the first equation is legislative support for the executive, which is the average percentage of legislators in the Chamber of Deputies voting with executive positions in a given month. We convert this variable into a proportion and then perform a logistic transformation to make it suitable as a dependent variable in a linear equation. The dependent variable of the second equation is logged amendment expenditures, or the natural log of the total individual budget amendments executed for legislators in a given month (i.e., pork). Taking the log of this variable is driven partly by our belief that pork

spending should produce diminishing marginal returns and partly by diagnostic evidence of nonlinear effects. The third dependent variable is Amorim Neto’s (2002) indicator of cabinet coalescence, or the overall proportionality between Chamber seat shares and cabinet seat shares for pro-presidential coalition parties (calculated with cabinet data primarily from Amaral forthcoming; Amorim Neto 2007; Amorim Neto and Coelho 2008). Finally, the proportion spent on coalition (also logistically transformed for use as a dependent variable) is the proportion of total individual budget amendments expended by the executive on members of pro-presidential coalition parties. This dependent variable does not appear as an independent variable elsewhere in the system of equations. However, like seemingly unrelated regression, three-stage least squares does not require dependent variables to appear as independent variables elsewhere. We include the intra-coalition proportion of pork because it is a variable of theoretical interest here. Furthermore, its predictors are similar to those of the third dependent variable, and the disturbances of its equation are correlated in a problematic way with the disturbances for the pork equation. Regardless, we note that use of three-stage least squares frequently follows the two-stage least squares specification pattern and so we also provide the results from a system of equations that does not include the equation for the intra-coalition proportion of pork.

In line with our theorizing about dynamism in the system, autocorrelation diagnostics support assertions that these dependent variables are predicted by their previous values. In particular, diagnostics suggest that the variables are subject to AR(1) processes. A one-month lag of the dependent variable appears in three of the equations, while a one-cabinet lag appears in the cabinet coalescence equation.<sup>8</sup> These lags eliminate the autoregressive error structures.<sup>9</sup>

Other goods managed by the executive appear on the right-hand side of the equations. Over the nine years examined in our data the constitutional rules remain constant, thus relieving any need to control for institutional design.<sup>10</sup> Based on surveys of Brazilian legislators, coalition heterogeneity is calculated as the average Sani-Sartori ideological distance score (Sani and Sartori 1983) of the parties in the coalition, as measured from the president’s party. The distance score for each party is weighted by the percentage of Chamber seats that it was contributing to the pro-presidential coalition at the time.<sup>11</sup> We use this measure instead of a blunter measure such as the ideological range of the coalition (i.e., the absolute distance from the leftmost to the rightmost party) because the spread from the *executive* seems most relevant from the president’s point of view. Another potential measure of the distribution of coalition goods is the effective number of coalition parties, which is  $1/\sum s_i^2$ , where each  $s_i$  is the



**Figure 1.** Support, pork, and coalitions

proportion of coalition legislative seats held by a particular coalition party in the Chamber of Deputies. This measure better operationalizes costs to the executive than would the raw number of parties in the coalition. Finally, coalition seats is the number of seats in the Chamber of Deputies held by pro-presidential coalition parties.

Two additional independent variables appear in the system of equations. We operationalize presidential popularity as the percentage of positive public evaluations of the president minus the percentage of negative evaluations. The dichotomous lame duck variable indicates the final year of Cardoso's second term.

Figure 1 displays, by month and by cabinet, the variance in three important variables in the system of equations. The figure plots each monthly variable value as a percentage of the maximum value observed in the data. Despite a high average value, one can see that legislative support varies considerably throughout the years examined. Furthermore, the pattern of substitution is evident, as relatively higher values of pork are associated with relatively lower values of coalition heterogeneity and vice versa. For example, Cardoso's first cabinet features relatively high coalition heterogeneity and relatively low pork expenditures, but Cardoso's second cabinet reverses that pattern. The lame-duck nature of Cardoso's final year (primarily the fourth cabinet) also stands out in the figure as both coalition heterogeneity and legislative support dropped significantly. Lame-duck presidents in Brazil

typically must deal with cabinet defections during the last several months as their appointees leave the executive branch to pursue elective office. Coalition parties may also defect at this time to improve their electoral chances.

## Results

Table 1 displays the results of the three-stage least squares regressions. The first set of equations includes the intracoalition proportion of pork equation, while the second does not. This equation, which appears at the bottom of the table, is included in the system due to a belief that it is strongly cotermined with the overall amount of pork; these decisions are linked in the broader executive strategy. As hypothesized, this proportion (logistically transformed) exhibits substantial momentum from one month to another. Furthermore, an executive who can feasibly assemble a larger coalition (in terms of seats held in the lower house) is also able to focus more of the pork within the coalition. The raw coalition size is not treated as endogenous in the system because it is subject to significant external constraints—namely, the actual partisan distribution in the Chamber of Deputies, which in turn derives from the popular elections held in 1994, 1998, and 2002.

The dependent variable second from the bottom in the table is the proportionality or coalescence of the cabinet. Again, the lag of the dependent variable here is by cabinet and is included primarily for theoretical symmetry with

**Table 1.** Three-Stage Least Squares Regressions

Variable	Specification 1			Specification 2		
	Coefficient	SE	$p \leq$	Coefficient	SE	$p \leq$
DV: Logistically transformed legislative support						
Logistically transformed legislative support ( $t - 1$ )	0.500	0.088	0.001	0.499	0.088	0.001
Logged amendment expenditures ( $t - 1$ )	0.078	0.039	0.046	0.077	0.039	0.049
Coalition seats	-0.002	0.002	0.470	-0.002	0.002	0.451
Lame duck	-0.506	0.375	0.177	-0.526	0.375	0.161
Constant	-0.498	1.170	0.671	-0.450	1.172	0.701
DV: Logged amendment expenditures ( $t - 1$ )						
Logged amendment expenditures ( $t - 2$ )	0.449	0.069	0.001	0.432	0.070	0.001
Logistically transformed legislative support ( $t - 2$ )	0.266	0.114	0.020	0.277	0.116	0.017
Coalition heterogeneity ( $t - 1$ )	-23.229	7.829	0.003	-23.439	7.943	0.003
Cabinet coalescence ( $t - 1$ )	-0.157	0.027	0.001	-0.165	0.028	0.001
Presidential popularity ( $t - 1$ )	-0.079	0.010	0.001	-0.081	0.010	0.001
Lame duck ( $t - 1$ )	-5.180	0.922	0.001	-5.386	0.938	0.001
Constant	24.990	2.579	0.001	25.883	2.621	0.001
DV: Cabinet coalescence ( $t - 1$ )						
Lagged cabinet coalescence	-0.614	0.075	0.001	-0.611	0.075	0.001
Coalition seats ( $t - 1$ )	0.115	0.009	0.001	0.115	0.009	0.001
Presidential popularity ( $t - 1$ )	-0.285	0.027	0.001	-0.284	0.027	0.001
Constant	56.437	5.117	0.001	56.256	5.109	0.001
DV: Logistically transformed proportion spent on coalition ( $t - 1$ )						
Logistically transformed proportion ( $t - 2$ )	0.784	0.037	0.001			
Coalition seats ( $t - 1$ )	0.004	0.001	0.001			
Constant	-1.339	0.336	0.001			

Note. DV = dependent variable. The sample size is 104 months, with 4 months excluded due to the 1-month and 2-month lags at the start of the time series and at the start of the Lula presidency (since we do not allow lagged values to cross from one presidency to another).  $R^2$  for the four equations in Specification 1, in order, is 0.430, 0.728, 0.744, and 0.856.  $R^2$  for the four equations in Specification 2, in order, is 0.430, 0.719, and 0.744. However, these  $R^2$  values cannot be interpreted normally due to the non-nesting that results from using instruments to estimate parameters. All tests are two-tailed.

the other equations. Despite the fact that current cabinet coalescence has no zero-order correlation with previous cabinet coalescence, the coefficient here is negative and statistically significant. This suggests an inverse relationship between previous and present cabinet proportionality, which could be indicative of an unanticipated cycle. Furthermore, an executive with the luxury of creating a coalition that includes a larger number of seats in the lower house, as was typically the case with Cardoso, can afford to focus on intracoalitional rewards like more proportional cabinets. Also as expected, a more popular president gains bargaining leverage that tends to lead to the construction of less proportional cabinets.

Pork (i.e., amendment expenditures) serves as the dependent variable in the second equation from the top in Table 1. Like the intracoalition proportion of pork, overall pork expenditures are positively influenced by previous values. Also in line with our predictions, pork spending is a function of the previous level of legislative support as executives reward supportive behavior. Furthermore, an executive can convert popularity into a legislative benefit,

though the relationship with legislative support is indirect. Instead, as we had suggested, a more popular executive is able to expend less pork in building legislative support.<sup>12</sup> The negative coefficient for lame duck status defies our expectations, but the reasoning may be similar. We find that Cardoso actually spent less during his lame-duck period, but this lower level of spending may have been an acknowledgement that the pork was going to buy far less. Cardoso may have conceded support and saved some money that final year.

We also find evidence of a substitution effect between coalition goods and pork in Brazil.<sup>13</sup> Executives assembling more ideologically diverse and more proportional cabinets tend to expend less on pork. Our proposal, again, is that a particularistic good like pork carries substantial value in a country like Brazil, so pork can be used as a substitute for coalition goods. Consequently, an executive can compensate, at least in the short term, for an ideologically narrower or less proportional cabinet through increased pork expenditures.<sup>14</sup> Similarly, an executive can get by with expending less pork when the cabinet is

ideologically broader or the cabinet is more proportional. To achieve longer-term success, each executive must find the balance of the two types of resources that prevents alienation of key supporters. Worth noting is that we specify coalition heterogeneity and cabinet coalescence as contemporaneous with pork expenditures. While the actual distribution of pork follows the distribution of coalition goods, an executive makes decisions about pork distribution based on the *current* state of the coalition.

The final dependent variable (and uppermost in Table 1) is legislative support. As proposed, legislative support is primarily a function of previous legislative support and previous pork distribution. The result with respect to individual amendments (pork) contravenes how some view the impact of pork distribution on legislator behavior. For example, Limongi and Figueiredo (2007) claim that establishing a causal relationship between votes and pork is impossible, essentially basing their claim on descriptive evidence in the form of a frequency distribution. However, our analysis that models the dynamic system of exchange and that controls for other factors that may influence legislator voting behavior reveals that appropriation of pork positively increases legislative support in Congress and vice versa.

Two additional variables appear in this equation. Again, traditional parliamentary theories propose that the seats held by the coalition will predict legislative support. As anticipated, that relationship is not directly evident in the presidential regime of Brazil, with its separation of powers and greater ideology fluidity.<sup>15</sup> Furthermore, lame-duck status does not appear to affect legislative support directly. Instead, lame-duck status appears indirectly to affect legislative support by altering the patterns of exchange.<sup>16</sup>

## The Case of Pension Reform

We turn now to how these relationships work in practice. A brief case study from Lula's trying first year illustrates certain results from Table 1. In particular, the case of the 2003 pension reforms (see Alston and Mueller 2006; Melo 2008) demonstrates the interaction between pork and coalition goods, as well as the importance of the bargaining context and goals. Upon assuming office, Lula needed to implement fiscally conservative policies to calm international lenders and markets and to ease budgetary pressures inside the country. Success, however, meant overcoming his strong leftist history, a severely fractured party, and rather limited ideological support in the Congress. Many of the necessary measures would require constitutional amendments and a concomitant 60 percent support in the Congress. Even with highly disciplined parties (which these were not), Lula's baseline support would be insufficient. Lula found himself needing to build temporary supermajorities by combining partisan

opponents with more leftist legislators who would dislike the policy program.

The relative ideological fluidity in Brazil could cut both ways. Some rightist partisan opponents would vote against Lula's reforms despite ideological agreement with them, while leftist legislators could be brought along with the proper inducements. The game would be much more difficult to solve than if ideology played the determinative role in voting decisions, but it was also possible for Lula to build the supermajorities he required—a virtual impossibility in the world of disciplined parties and responsible party government.

The Lula government, like the previous Cardoso government, proposed the taxation of retired worker pensions as a key component of solving the fiscal crisis of the Brazilian government. The pension legislation represented an extreme departure from previous Lula and PT rhetoric, which had derided any attempts at pension reform as “neoliberal” and “technocratic,” and this *volte-face* created serious fissures within the party and the broader governing coalition. The proposal also antagonized many of the President's most important support groups like labor unions and civil servants.

In the face of a difficult bargaining environment, Lula's substitution behavior was an exaggerated version of certain patterns identified in Table 1. Lula rewarded his own PT with cabinet seats and incorporated a diverse (though minority) group of parties into his coalition. At the same time, Lula bought support from outside the coalition with pork. Lula's strategy produced the desired result with supermajority support for the pension reforms in the Chamber of Deputies (about 70 percent of the overall number of deputies), despite only 213 votes (about 42 percent of the overall number of deputies) from within the coalition. Even strong partisan opponents like the centrist PSDB and the conservative PFL (the two principal parties of the former Cardoso coalition) largely went along with the initiative, with about evenly split support from each. Helping Lula even more than the ideological acceptability of the legislation was likely the fact that nearly 41 percent of the overall pork was disbursed to individuals associated with PSDB and PFL alone in 2003. Similarly, about 89 percent of the pork disbursed at the state level in 2003 went to states governed by noncoalition parties, with about 34 percent of the total going to states governed by PSDB or PFL. Thus, pork helped Lula—an inexperienced *formateur*—get through his difficult first year. Only in 2004, with the incorporation of the PMDB, did Lula's coalition assume its current supermajoritarian form.

## Summary and Discussion

Traditional theories of government formation and policy-making describe a tidy parliamentary world in which strong



and disciplined parties vote based on political ideology. We have examined executive-legislative exchange when such conditions are absent. As in many other separation-of-powers systems, the political parties of Brazil are relatively weak and undisciplined, and political ideology is far from a deterministic force. In short, a different set of rules applies.

Therefore, our theoretical approach differs from its predecessors. Traditional parliamentary models assume unambiguous exchange of coalition status and cabinet seats for legislative votes. This is predominantly a one-way relationship. When sufficient legislative support is no longer forthcoming, a government reformation or new election creates a new start point. On the other hand, multiparty presidential regimes, for historical and institutional reasons, frequently do not enjoy strong and disciplined parties and cannot simply reshuffle the deck with new elections. Hence, studies of these regimes have looked separately at ways for executives to use particularistic goods like pork to build support or ways for executives to boost voting with coalition goods.

By merging previous literatures on coalitions and distributive politics, our work has set the stage for a more integrated and refined view of executive-legislative exchange in multiparty presidential regimes. Executive strategies for using coalition goods and pork are not independent, nor are their effects on legislative support. The empirical evidence supports our proposal that an executive uses particularistic goods like pork to produce marginal variance in legislative support after doling out longer-lasting coalition goods and gauging bargaining leverage based on factors like popular support or lame-duck status. While pork is often an effective complement to coalition goods, institutional arrangements may also allow pork to serve as a substitute in building legislative support. Such substitution may be particularly attractive if an executive needs to obtain support from partisan or ideological foes. Pork is also flexible enough to permit ongoing adjustments as it interacts reciprocally with legislative support.

Executives of coalitional presidencies often operate in dynamic and conditional environments. We have identified broad strategic patterns in executive-legislative exchange, but our comparison of specific Brazilian presidencies and the pension reforms example also reveal that executives may use different tactics for implementing these strategies. These tactics respond to the particular goals of the president and the characteristics (institutional and otherwise) of the bargaining environment. In our example, Lula faced a need for supermajority support with a minority of fragmented natural allies in the legislature. In response to this situation, Lula used coalition goods to firm up support among core allies and sent pork to partisan opponents as a substitute. The contrasting experiences of Cardoso and Lula show that presidents draw on what we have called the “executive toolbox” in

different ways, responding to contextual and temporal factors.

The part played by ideology in all of this is not a straightforward one. Ideological agreement does not automatically imply legislative support, nor is ideological disagreement a certain portent of legislative opposition. Instead, ideology becomes a variable in a complex set of calculations. Given the circumstances, how much does ideological agreement decrease the cost of support? Similarly, what is the cost of overcoming ideological disagreement?

We have joined in a research agenda that examines how institutional arrangements overcome party fractionalization and the need for coalitions under multiparty presidentialism. Democratic equilibria frequently emerge, but surmounting the obstacles is not easy. From the executive’s point of view, multiparty presidentialism is not a very user-friendly format. In addition to acquiring the managerial skills necessary for public policy, presidents must also learn to become effective wranglers of interparty alliances and must master the strategic, interdependent use of multiple resources. We have begun to understand how presidents can (or cannot) achieve all this, but examinations of other multiparty systems are likely to yield significant insights. Even among the subset of cases with high levels of party fragmentation, the constitutional and partisan powers of presidents vary considerably (Shugart and Carey 1992). As Altman (2000) notes, the diversity among multiparty presidential systems argues strongly for examining theories on a rigorous country-by-country basis.

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### Notes

1. The data used in this article and the codes for replication are available through the Inter-University Consortium for Political and Social Research (ICPSR) publication-related archive.

2. Martin and Stevenson (2001) also discuss neo-institutionalist theories of coalition formation, but such theories have less direct bearing on the issue of legislative support.
3. Since 1990 the party of the president has always held less than 25 percent of the seats in the lower house. In mid-2009 under President Lula this figure stood at 15 percent.
4. Other reasons for choosing the Brazilian case are pragmatic. Much of the research on executive-legislative exchange in multiparty presidencies has used the Brazilian case, which makes our study a natural extension. Additionally, the data requirements for this type of analysis are considerable. Data on legislative support, pork, coalitions, and cabinets at different time points are all necessary, and these data are available for the Brazilian case.
5. Cardoso ran in 1994 as the popular architect of a successful anti-inflation plan and won the presidency outright in the first round. The 1994 elections were the first concurrent elections for president and Congress since 1950, allowing for significant pre-election coordination of the Cardoso alliance. In a rare feat, Cardoso's own party won the governorship of the three most important states, and parties supporting him made significant gains in Congress.
6. The budget for 2003 was drafted by the previous administration in 2002. However, Lula had discretion over whether he would actually disburse the slated earmarks. Therefore, while institutional momentum perhaps explains some of the outward spending, Lula was also explicitly targeting his pork expenditures.
7. Breusch-Pagan tests of independence suggest a problematic correlation of errors across some of the pairs of equations in the systems we estimate.
8. The lag for cabinet coalescence is not a month-to-month lag because this variable is largely static with periodic shifts corresponding to cabinet reshuffles. So, while the previous month's value is predictive, it is typically not predictive in a causal manner. The establishment of any norms or expectations for cabinet coalescence would be observed from one cabinet to the next.
9. We considered use of an ARIMA-type model to address the autoregressive errors directly. However, Keele and Kelly's (2006) examination of the use of lagged terms concludes that using the lag is appropriate if the current dependent variable is theoretically and systematically related to previous values of the dependent variable. Furthermore, we believe the three-stage least squares approach has many advantages and is optimal for this analysis.
10. An exception is Constitutional Amendment No. 16 of June 4, 1997, which allowed one consecutive reelection to executive posts. Expectation of this reform antedates our time series. Another exception is Constitutional Amendment No. 32 of September 11, 2001, which restricted the president to a single reissue of each lapsed decree. The effects of this constitutional reform on presidential agenda-setting powers were largely innocuous (Pereira, Power, and Rennó 2008).
11. Party switching is common in Brazil, and interparty migrations mean that coalition and cabinet characteristics undergo minor changes every month even if the partisan composition of the coalition remains constant. Fortunately, we were able to obtain data on individual party switching for every month from 1997 through 2005 and have incorporated these data into the calculation of other variables.
12. Presidential popularity does not directly influence legislative support in our data. We have not included presidential popularity in the legislative support equation due to high inverse collinearity with amendment expenditures. The pattern of zero-order correlations provides evidence that this is the superior feasible specification.
13. We estimate separate systems of equations with coalition heterogeneity and the effective number of coalition parties due to a correlation of 0.916 between these two variables. Though we have not included the results for the effective number of coalition parties here, the underlying theoretical reasoning and the results are substantively very similar.
14. Alternative static analyses using interaction terms support this view of substitutability. Graphic representations of the results show that pork has a greater influence on legislative support when coalition goods are in lower supply, and vice versa. The results of these separate analyses are available from the authors upon request.
15. Cabinet coalescence and coalition heterogeneity do not appear in the equation predicting legislative support. Diagnostic procedures and specification tests strongly suggest no significant direct relationship between these variables and legislative support in this data. Besides overspecification concerns and undue inflation of standard errors, including coalition heterogeneity here might also reduce its effectiveness as an instrument in the first-stage regressions.
16. This system of equations, as specified, does not directly contemplate the effects of the *mensalão* corruption scandal, which involved illicit payments from the Lula administration to legislators during the timeframe of early 2004 through mid-2005. A dichotomous variable for that time period is not significantly related to any of the dependent variables. Most likely, the difficult bargaining conditions and early strategic choices had caught up with Lula, and the illicit payments were necessary in order for the various other executive resources to maintain a certain level of effectiveness—relationships beyond the scope of our model.

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