Executive Authority, the Personal Vote, and Budget Discipline in Latin American and Caribbean Countries

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Recent scholarship on budgeting in Latin American and Caribbean (LAC) countries indicates that political institutions impact the level of budget discipline. Building upon this previous research, we argue that the principal problem that must be addressed in both the government and the legislature to insure strong fiscal discipline is the common pool resource (CPR) problem. At the cabinet level, the CPR problem arises because ministers consider the implications of decisions on their ministries only. The level of the CPR problem in the legislature depends upon the electoral system. Using a data set of LAC countries for the period 1988–97, we find that executive power in the budget process is most effective in reducing budget deficits when electoral incentives for the personal vote is high in the legislature, while strengthening the president (or prime minister) in countries where the personal vote is low in the legislature has no effect.

Economists and political scientists alike have turned attention increasingly to domestic political institutions to explain the great variations in the size of budget deficits across countries since the early 1970's. One school of thought has focused on how governments make their budgets each year. These "budget institutionalists" argue that greater centralization of the budget process leads to budget discipline (Alesina et al. 1998; Baldez and Carey 1999; Hallerberg 2004; Hallerberg and von Hagen 1999; von Hagen 1992). Conversely, "electoral institutionalists" focus on the effects that electoral systems have either directly or indirectly on the budget process. The general finding is that plurality electoral systems maintain tighter fiscal discipline than proportional representation systems (e.g., Milesi-Ferretti, Perotti, and Rostagno 2002; Persson and Tabellini 2003).

Most of these studies restrict their empirical examinations to industrialized countries. Two exceptions to the general rule, Alesina et al. (1999) and Stein, Talvi, and Grisanti (1999), examine how institutions affect fiscal policy in Latin America. Based on budget director surveys, Alesina et al. (1999) take the budget institutionalist approach. They argue that countries with more hierarchical budget institutions have lower budget deficits than countries with more collegial institutions in a sample of Latin American countries for the period 1980–92. Stein, Talvi, and Grisanti (1999) find evidence for both schools of thought. Based on regression analysis for Latin American countries for the period 1990–95, budget institutions remain important in the later period, while increases in average district magnitude decrease budget discipline.

This article focuses on the relationship between budget and electoral institutions in Latin America. There are two key steps to the budget process—the government formulates its budget proposal within the cabinet, then the government sends the proposal to the legislature where it is considered, possibly amended, and approved. We argue that strengthening a dominant player (usually the finance minister) at the cabinet stage improves budget discipline in both presidential and parliamentary systems with one-party governments found in Latin

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American and Caribbean (LAC) countries. Strengthening the position/power of the executive vis-à-vis the legislature, in contrast, is conditional on the electoral system. Budget discipline increases only in countries where the electoral system favors the election of individuals over the election of parties. Such a "personal vote" encourages politicians to provide particularistic goods to specific groups to get reelected. In this case, a strengthening of the executive's position leads to tighter fiscal discipline because the executive can reduce the amount of particularistic spending projects that are more common where the personal vote is high. In countries where the "personal vote" is low, however, there is less incentive for legislators to support particularistic spending bills. The fiscal benefit from strengthening the executive is then unclear. The implication is that one cannot state simply that stronger budget institutions in the form of a strong executive, or plurality electoral systems, always lead to higher fiscal discipline—the impact of budget institutions therefore depends upon the electoral system in place.

We begin with a discussion of the main contemporary problem of budgeting, namely fragmentation of decision making that leads to common pool resource (CPR) problems. A CPR problem exists whenever politicians consider the benefits and costs of their decisions on their constituencies only. In a budgeting situation, they do not internalize the full tax implications of their decisions and they request more spending. In a multiperiod game this leads to larger budget deficits than if they had considered the full burden. In a government cabinet the problem is usually endemic because ministers consider the spending and tax implications of decisions on their ministries. Hallerberg and von Hagen (1999) illustrate that centralization either in the form of *delegation* to a finance minister with a dominant position in the budget process or *commitment* to negotiated fiscal contracts among coalition partners can reduce the CPR problem in cabinet. Consistent with their argument on why some countries choose delegation over commitment, we expect the presidential systems and one-party parliamentary governments in our sample to rely on delegation to reduce the CPR problem in cabinet.

In the legislative stage, the relative size of the CPR problem depends on the extent to which the electoral system encourages the personal vote. The more the system rewards legislators who develop personal contacts, the larger the CPR problem in the legislature. Systems that encourage the personal vote include open-list proportional representation countries like Brazil. Closed-list proportional representation systems like Argentina reduce the CPR problem. Hence, more hierarchical institutions within parliament are needed to control the CPR problem especially in countries where open-list proportional representation is practiced.

We then examine these arguments empirically. Based on the data that Alesina et al. (1999) collect, we confirm that virtually all countries in the sample have "strong" central players in the cabinet as the theory would expect. As a result of this lack of variance, we are unable to test the arguments that centralization of the budget process in the cabinet should strengthen fiscal discipline. Nonetheless, we present important findings concerning the legislature. Executive power in the budget process is most effective in reducing budget deficits where the electoral system creates incentives to cultivate the personal vote in the legislature, while strengthening the president (or prime minister) in countries where the electoral system does not encourage such a personal vote has virtually no effect. We also examine alternative explanations, such as district magnitude, other budgetary institutions, partisanship, military conflicts, IMF programs, and political business cycles. Our results remain robust under different model specifications. Moreover, the finding in Stein, Talvi, and Grisanti (1999) that increases in district magnitude lead to looser fiscal policy disappears when the effects of the electoral system on incentives for the personal vote are included.

Fragmentation and the Common Pool Resource Problem

The Players

In a broad sense we are concerned with politicians who make decisions that affect a given country's budget. Individuals belong to one, and only one, political party. Parties differentiate themselves by appealing to different clienteles in the general population. They propose both spending and tax packages that are designed to benefit their supporters. This assumption means that, even if parties operate in Downsian fashion and converge toward the median voter in policy positions, parties still want to get elected in order to distribute the "spoils" of victory to their supporters.[1]

There are also two ideal types of government that are generally accurate characterizations of the two types of government found in Latin American and Caribbean countries. Parliamentary systems are those where a parliament elects the leader of the country, the prime minister who tends to be the leader of the victorious party. In our sample, these countries are in most cases former British colonies that adopted the Westminster system. Terms of office generally are not fixed; the prime minister has the

[1] For a good contemporary discussion see Clark (2003).

right to call an early election and to dissolve parliament. The Westminster system usually results in a single party government that controls both executive and legislative branches. In contrast, in presidential systems the voters directly elect the president. The president cannot dissolve congress, and elections are held at fixed times. Unified governments exist when one party controls a majority of seats in relevant chambers of ciongress (lower house and, where they exist and where their approval is necessary for a bill to become law, upper house) as well as the executive. Divided government exists when one party does not control all relevant institutions.

The Problem

An important reason for the occurrence of regular budget deficits is what is known in the literature as the common pool resource problem (e.g., Ostrom 1990). In budgeting, the common pool is state revenues that the budget players draw upon. The crucial assumption is that decision makers care most about their constituencies when they make budget bids. They therefore concentrate mostly on the benefits of additional spending and costs of additional taxes for only a small subset of the general population. Because a given constituency will enjoy the full benefits of every additional peso in spending but have to pay only a fraction of additional taxes for the additional spending, decision makers will make budget bids that are larger than if they were to make bids that included the full tax burden.

The process for how budgets are determined given these preferences is important. If the process is fragmented so that players essentially receive what they ideally bid, then both spending and the size of budget deficits in a multiperiod game will be higher than under more centralized procedures. Any procedure that forces a consideration of the full tax burden in the budget decision, conversely, will reduce both spending and budget deficits (Velasco 1999). Yet what these authors have neglected to date are systematic differences in the amount of fragmentation (and, by extension, the size of the CPR problem) even in the absence of centralizing budgetary procedures. The crucial variable here is the proportion of the total tax burden that a given decision maker considers. If all players have an incentive to consider the total tax burden, then there is no common pool problem. If decision makers have incentives to consider only a small fraction of the total tax burden, then the CPR problem is potentially large.

The next two sections examine how both types of political systems (presidential or parliamentary) and the electoral rules for the legislature create incentives for decision makers to consider different proportions of the total tax base. It turns out that the level of fragmentation may not be all that different across Latin American cases for the cabinet stage of the budget process, but it does matter greatly/significantly for the legislative stage. We begin with a discussion of institutional sources for different potential levels of the CPR problem within the cabinet and within the legislature. We then discuss potential solutions.

Sources of Fragmentation within the Cabinet

Ministers usually belong to a political party. Political parties often represent distinct sectors in society. For example, a long tradition in political science identifies labor parties as representing the interests of labor on the national stage while conservative parties represent the interests of capital (Hibbs 1977). To the extent that parties represent only subsections of society and that party clienteles are distinct from one another, and to the extent that cabinet members care only about the effects of their decisions on their party clienteles, a CPR problem will exist. Moreover, there are two dynamic expectations concerning party bias. First, the smaller the total tax burden that a given party making a budget decision represents, the larger the fragmentation of the budget process in absence of any centralizing institutions. Second, and complementary, the higher the number of political parties that participate in the decision-making process, the more fragmented the process.

This aspect concerning parties would suggest that one-party governments should have CPR problems of lesser magnitude. If parties are truly unified actors, and if they coherently represent one large block (in terms of proportion of the population), this statement is true. Yet parties across countries (and even within countries) are not equally unified. Parties can bring together different interests under one label. A single party may have an urban wing, an agricultural wing, and a Catholic wing. Moreover, parties in countries where there are traditionally only two major parties often have a "big tent" character that accommodate diverse, and sometimes contradictory, interests. In addition to interparty fragmentation, therefore, there can also be *intraparty* fragmentation. The more a given party has different political wings to it that have distinct constituencies, the larger the fragmentation of decision making and the larger the potential CPR problem. This problem is apparent when one considers that ministries may be awarded directly to the part of a political party that cares most about a given policy. An agriculture ministry, for example, may go to the rural party wing, while the ministry for urban affairs would go to the urban party wing.

Is there any systematic relationship between interparty and intraparty sources of fragmentation? The answer is "yes," and it depends on both the type of political system (presidential vs. parliamentary) as well as the electoral system for the congress. Intraparty fragmentation is likely to be problematic in all presidential systems. Voters usually elect presidents with some form of plurality electoral system. This means that the president must receive the most votes to win the election. The presidency is not divisible in presidential elections, and this fact encourages one-party executives. This is not to say that some form of government approaching a "coalition government" is not possible—as the Argentine, Brazilian, and Uruguayan examples illustrate, a president may choose to bring ministers from other parties into the government to strengthen congressional alliances (Altman 2000; Ames 2001; Amorim Neto and Tafner 2002; Figueiredo and Limongi 2002). Yet the withdrawal of one or more parties from the government does not threaten the position of the President like parliamentary systems where the collapse of the government imperils the position of the prime minister. In Brazil, for example, there were five different party configurations in the cabinet under President Franco in less than two-and-a-half years, while there were four different party configurations under Franco's predecessor (President Collor; Amorim Neto 2002, 56). Similarly, there is no institutional imperative for a president to form a coalition government if she faces an opposition majority in congress to remain president. This suggests that interparty fragmentation of the executive should be less common under presidential systems than under parliamentary ones, and that, when interparty fragmentation in the executive is present, it is also potentially volatile because changes in the "coalition" do not imperil the president.

A more common problem in presidential systems is *intraparty* fragmentation. While more details about the dynamics of such fragmentation appear below, it is often the case that presidential candidates must bring together often diffuse interests behind his/her candidacy in order to have a chance to win. Once a president assumes office, he may owe different wings of the party different cabinet posts. If these ministers can then dictate their budgets, the CPR problem will be large. At the same time, the president is the only actor on the national stage that has a truly national constituency. In principle, he therefore considers the nation's tax burden, not the tax burden of a specific constituency. An important question is the extent to which the president's national interests override any more localized interests that cabinet members represent.

The second possibility is that a state has a parliamentary system. In this case, the electoral system plays an important role in determining the number of parties in government. The literature is clear that electoral systems have an important impact on the number of political parties who can get elected to the legislature, and by implication, how many parties are necessary to form a governing majority (or minority, as the case may be in Europe). As Duverger (1951) illustrated decades ago, plurality systems generally lead to a two-party system, and countries with such electoral systems are therefore likely to have one-party majority governments. Proportional representation (PR) systems have more variation in their district magnitudes, though the magnitudes are always larger than those found in plurality systems. They tend to have a larger number of "effective" parties in parliament, and they are likely to be characterized by multiparty majority or either one-party or multiparty minority governments (e.g., Lijphart 1999).[2]

While the theoretical discussion is important, for the purposes of this article our discussion can be simplified. Even in parliamentary systems we will be dealing as a rule with one-party executives. Of the 25 Latin American and Caribbean countries in our sample, only the Caribbean countries have parliamentary systems, and they all rely upon plurality electoral systems.[3]

Given that we are dealing almost exclusively either with presidential systems or with one-party parliamentary executives in our data set, Hallerberg and von Hagen (1999) would argue that the *delegation* of strategic powers to a strong central player, such as to the finance minister, is the appropriate solution to CPR problems in one-party government.[4] What is important is that the central player concern herself with the entire tax burden, not just the tax burden of individual ministries and/or the tax burdens on specific wings of the political party controlling the executive.[5]

[2]Amorim Neto and Cox (1997) add an important extension to the theory. The effects of preexisting social cleavages and electoral institutions on the effective number of parties, and hence on the likelihood of one-party or multiparty governments, is multiplicative.

[3]Those countries are the Bahamas, Barbados, Belize, Jamaica, and Trinidad and Tobago.

[4]In some countries this post is held by a budget, treasury, or economy minister instead of a finance minister. We refer throughout to this player as the "finance minister."

[5]Strengthening the finance minister is not necessarily appropriate in all cases. Hallerberg and von Hagen (1999) also propose an alternative institutional mechanism, *commitment* to fiscal contracts. *Commitment* arises when political parties form a coalition and expect to run against each other in future elections. The ultimate sanction of a party defects from the fiscal contract is dissolution of the coalition to punish the offender. Because the Latin American and Caribbean countries in our sample are either presidential or one-party majority parliamentary governments, *commitment* would seem to make

Argentina provides a useful case in practice to illustrate delegation in a Latin American setting. Individual ministers hold bilateral discussions with the National Budget Office located within the Ministry of the Economy. The National Budget Office then creates budgetary ceilings for every ministry, which are established according to revenue forecasts established by another part of the Ministry (the Department of Finance). In cases of disagreement, the President may intervene (Jones 2001). This centralized process differs from a set-up where ministers propose their budgets in a cabinet setting and where log rolls are common.

Powers beyond setting the agenda in one-party governments in parliamentary systems work where the head of the government necessarily enjoys majority support in parliament. The finance minister is not concerned that his own party will undercut his actions. This argument relies on more than just party discipline—more centralized decision making that benefits the sitting government also benefits the majority party, and members of parliament from the majority party have little reason to undercut their finance minister. It therefore makes sense that the central player receives strategic powers during all parts of the budget process, from the initial formulation of the budget within the government to the execution of the budget itself.

This argument would at first seem just as appropriate for presidential systems. Since the president is the only player with a nationwide constituency, she also has an interest in reducing the common pool resource problem as much as possible. We expect to find delegation on her part to a strong central player, such as a finance minister, who is responsible for regular monitoring of the budget. Like in the parliamentary case, the finance minister can have strategic powers at the budget proposal stage. He may be an agenda setter who determines the order of votes in cabinet, he may have the ability to cut initial budget proposals from spending ministers, or he may even simply designate certain spending levels for each ministry in the draft budget.

Yet whether the finance minister has any powers outside of the cabinet and beyond the initial proposal of the budget depends on the regularity of majorities behind the president in congress. Unlike in the parliamentary case, knowing that the executive is controlled by one party tells one nothing in presidential systems about the basis of support for the executive in the legislature. Under divided governments, it is unlikely that a majority in congress would delegate to the finance minister significant powers related to the execution of the budget. The majority instead would want to reserve the right to rewrite budget legislation in the congress.

It is also likely that the congress will want to monitor the assignments that traditionally are assigned to the finance minister, such as keeping track of the level of government spending across ministries. Powers to cut expenditure even after the budget has been passed may be one issue of contention between the finance minister and congress. In Mexico, for example, the finance minister has traditionally had fairly wide latitude to decide how to spend money that the congress has authorized. Moreover, the Mexican president can move authorized spending between accounts so long as he notifies congress of his actions the following year (Weldon 2002).[6]

To summarize our predictions: all states in the sample may have "strong" finance ministers to combat fragmentation at the budget proposal stage. Yet we predict that their relative strength throughout the budget process will vary depending upon the regularity of one-party majorities in congress in support of the president.

Sources of the CPR Problem within the Legislature

Differences across electoral systems lead to systematic differences in the level of fragmentation within congress. In particular, the more *candidate-centered* the electoral system the higher the level of fragmentation.

The standard dichotomy one finds in the literature on electoral systems is between plurality and proportional representation systems. Under plurality (often referred to as first-past-the-post), voters cast their ballots for an individual. The winner is simply whoever receives the most votes. While an absolute majority of 50%+1 guarantees victory, if more than two candidates run in a given electoral district the percentage required to win a seat can be much lower than an absolute majority. Only one candidate can win from each electoral district. This means that the district magnitude (DM) under such systems is one.

little sense for the states in our data set. The departure of a party cannot lead to a fall in the executive in presidential systems, while we simply have no coalition governments in parliamentary systems. Nevertheless, it is possible that countries where presidents regularly invite members from other parties to take cabinet positions agree to informal coalition agreements that could resemble fiscal contracts. We know of no research that documents in comparative fashion the scope of agreements among parties in Latin America's presidential democracies.

[6]A practical example comes from the United States under the Nixon administration, where previous impoundment practices were expanded significantly. Congress successfully challenged these practices in the courts and was later able to strengthen its position through the Congressional Budget and Impoundment Act in 1974 (Berman 1979; Pfiffner 1979).

Proportional representation systems take two forms, and the difference between the two is important. Under *closed-list* systems, political parties determine the order of candidates on a party list of nominees. Voters cast their ballots for parties only. The share of the vote a given party receives determines how far down the list one goes to determine who is elected. If a party nominates candidates for all seats in a district with a district magnitude of 100, for example, and the party wins 33% of the vote, the first 33 persons on the list would be elected. Under *open-list* systems, the procedure is the same except that voters determine the order of the party's candidates on the list.

This seemingly small modification to the system makes a big difference in terms of the level of fragmentation within the congress. It shifts the focus of the election from political parties to individuals, and in so doing it changes the incentives that candidates face. Under an open-list system, candidates must appeal directly to voters in an electoral district to get elected. Moreover, as district magnitude increases, intraparty competition for *district* voters increases as well, and candidates have an incentive to promise particularistic benefits to an ever smaller group of voters to assure (re)election. An example comes from Brazil, where candidates even promise infrastructure improvements to specific firms in exchange for block voting from a firm's employees for the candidate (Ames 1995, 2001). In contrast, under a closed-list system, candidates must appeal to party leaders to get a high ranking on the list. The effects of district magnitude then *reverse*: as district magnitude increases, fragmentation decreases (Carey and Shugart 1995). Consider, for example, a country where district magnitude is just four. It may make sense for individuals to appeal to specific constituency interests when district magnitude is small—in a district with four seats, for example, the marginal gain in seats can jump with minor electoral gains from 25% of the seats (one of four) to 50% of the seats (two of four), and the candidate who appears second on the list has every incentive to make such an appeal directly to the constituency. If there are 40 seats in the district, however, candidate order on the party's list is far more important to an individual than appeals to a particular constituency within the district. Candidates therefore have an incentive to care more about the wishes of party leaders (Shugart and Haggard 2001).

Carey and Shugart (1995), in an article that deserves far more attention than it has so far received, create an index for the extent of the personal vote based on three classifications that can be used to measure differences in the personal vote across countries. First, they consider the extent of power political party leaders have over who appears on the ballot. Countries where leaders are present and where voters may not disturb the party list receive a score for *ballot* of "0," countries where leaders exist but where voters may disturb the list are scored a "1," while countries where leaders have no control over the list are scored a "2." The logic of the ranking is based on the importance of party leaders in determining who appears on the ballot in the first place. Their second variable, *pool*, concerns how votes are pooled. Countries where pooling occurs across the party are scored a "0," countries where there is pooling at the subparty level are scored a "1," and countries where there is no pooling at all are scored a "2." Clearly, candidates have more incentives to care about their party's support when all pooling is at the party level. Finally, *vote* expresses the number of votes one can cast; "0" represents the case where voters can cast one vote only, "1" is the case where voters cast multiple votes, and "2" is the case where individuals cast one vote only at the subparty level (i.e., for a party faction or an individual). Using these classifications one can then rank countries from systems that provide the fewest incentives for the personal vote (all three variables scored a "0") to systems where they personal vote is extremely important (all three variables scored a "2"). There are a growing number of studies that examine the effects of the personal vote on economic reform, economic growth, and corruption (Eaton and Maxfield 1999; Gaviria et al. 2000; Golden 2003; Shugart and Haggard 2001).

To our knowledge, no one has yet examined the relationship between the level of the personal vote and budgetary outcomes. To do this, we begin with a comparison of the personal vote based on the Carey and Shugart (1995) classification scheme (see Table 1). We also create a new variable, "Personal," which is our coding of the relative incentives of a given system for the personal vote in the spirit of Carey and Shugart (1995). We create this variable in the following way. We assume that initial moves from one to two in district magnitude affect the personal vote more than increases in district magnitude from 80 to 81. To account for this intuition numerically, we take the log of district magnitude. Second, we add ballot, pool, and votes together and add "1" to them to create the variable *a*.[7] If the electoral system has a closed list and is not plurality, we divide *a* by the log of the district magnitude. The division function reflects the intuition from Carey and Shugart (1995) that, as the district magnitude increases in closed-list systems, the extent of the personal vote should decline. In the remaining systems, we add the log of district magnitude to *a*. This captures the intuition that increases in district magnitude lead to

[7]The addition of one is necessary so that we avoid division by zero in the next step.

TABLE 1 Comparison of Incentives for the Personal Vote and District Magnitude

Country	Ballot	Pool	Votes	Average District Magnitude (DM)	Personal Index	Personal Rank, Performance	DM Rank, Performance
Guyana	0	0	0	43.4	0.06	1	21
Paraguay	0	0	0	19.2	0.08	2	19
Bolivia	0	0	0	12.5	0.09	3	17
Bahamas	0	0	0	1	0.1	4	1
Barbados	0	0	0	1	0.1	4	1
Trin&Tob	0	0	0	1	0.1	4	1
Argentina	0	0	0	8.7	0.11	5	15
El Salvador	0	0	0	8.2	0.11	6	14
Costa Rica	0	0	0	8.1	0.11	7	13
Nicaragua	0	0	0	8.1	0.11	7	13
Jamaica	0	0	0	1.3	0.11	8	2
Honduras	0	0	0	7.1	0.12	9	11
Belize	0	0	0	1.6	0.12	10	3
Mexico	0	0	0	4	0.17	11	8
Dom Rep	0	0	0	3.4	0.19	12	7
Venezuela	0	0	1	7.6	0.23	13	12
Guatemala	0	0	1	6.9	0.24	14	10
Suriname	0	0	1	5.1	0.28	15	9
Uruguay	1	0	2	11.4	0.38	16	16
Panama	0	0	0	1.8	0.39	17	4
Ecuador	0	0	1	3.2	0.4	18	6
Chile	1	0	2	2	0.43	19	5
Peru	1	0	1	4	0.5	20	8
Brazil	2	0	2	16.8	0.62	21	18
Colombia	2	1	2	42	0.76	22	20

Countries are ranked from best to worst in terms of the effects of the electoral system on the budget balance. Shaded countries represent cases where the rank order of countries differs notably from Stein et al. (1999). District magnitudes are averages, and, for countries with two houses, the figure reported is an average of both houses. The district magnitude data appear in Inter-American Development Bank (1997) and Stein et al. (1999). Codings of Ballot, Pool, and Votes are based on Carey and Shugart (1995), Jones (1995), Europa World Yearbook (various years), and L'État du Monde (various years).

increases in the personal vote. Finally, we divide the index by 10 to rescale the index so that it ranges from 0 (no personal vote) to 1 (only personal vote). The index reflects the general argument of Shugart and Haggard (2001) that plurality electoral systems, such as the one found in the United States, encourage the personal vote less than systems like Brazil's with an open list but more than systems with a closed ballot. Table 1 indicates that the personal vote is least apparent in Guyana at .06 and most apparent in Colombia at .76.[8]

This classification leads to different expectations about the effects of electoral systems on budget outcomes than Stein, Talvi, and Grisanti (1999) predict. They use the log of average district magnitude, and they find empirical support that increases in district magnitude lead to decreases in the government budget balance. Table 1 ranks the countries from "best" to "worst" in terms of their expected performance on the budget based on their electoral systems. It also highlights cases where the predictions about the effects differ by more than ten places

[8]The ballot/pool/vote calculations are for the lower house. In calculating the personal index we use the average district magnitude as calculated in Stein, Talvi, and Grisanti (1999), which is the average of the district magnitude in the two houses, for direct comparability between the two. The correlation between the two is .94, and indeed the regression results strengthen somewhat if we use the lower-house district magnitude only. Also, in personal correspondence, Mark Jones provided alternative district magnitudes for five countries: Argentina 4, Bolivia 14.44, El Salvador between 5 and 6, Paraguay 24.7, and Uruguay 17.6. He also suggested that Peru's coding for district magnitude was too low and that Panama and Suriname should have ballot codings of "1." We use the Stein, Talvi, and Grisanti (1999) data to assure that differences in results are not driven by differences in codings. We did rerun the results with Jones's coding, and they remained substantively the same.

in the ranking. It is noteworthy that 8 of 25 countries have rankings that differ by such an amount from each other. Guyana, Paraguay, Bolivia, and Argentina look better than one would expect based on a strict consideration of district magnitude, while Panama, Ecuador, Chile, and Peru look worse.

These classifications are not the whole story. They tell us the amount of fragmentation we would expect in congress or parliament given the electoral system without knowing anything about budget institutions. In fact, the classifications suggest that some countries are more in need of centralized budgetary procedures than others. Brazil and Colombia would both suffer proportionately more from a lack of centralizing procedures than Paraguay and Bolivia because of their higher scores on the personal vote.

We can now bring together the discussion of budgetary institutions within the cabinet and budgetary institutions within parliament. Special powers delegated to the president on budgetary issues should have greater effect the larger the personal vote incentive in congress. There are two reasons for this, one involving the nature of the CPR problem and one involving the nature of a common power the president possesses, the veto power. The president is elected from a nationwide constituency and is thus expected to consider the nation's tax burden. Second, the veto is a reactive rather than proactive power. This means that the president has some ability to make cuts to budgets in situations where he prefers lower spending than congress, but he does not have a similar power to increase spending beyond what congress desires (Kiewiet and McCubbins 1988; Shugart and Haggard 2001).

Predictions and Evidence

Institutional Design

Combining the discussion of cabinets and legislatures yields the following predictions. First, concerning the endogeneity of centralized budgetary institutions, the most centralized budgetary systems should be expected where there are usually unified governments. Problems of delegation to a central player who can consider the entire tax burden are least evident where solutions to the problem benefit the party in power. We can make the following predictions:

> *H1: Presidential governments and one-party parliamentary governments should have a strong central player at the formative stage of the budget within cabinet. In the Latin American and Caribbean country data set this covers* all *countries.*

> *H2: Unified governments are more likely to have a central player with substantial strategic powers for all parts of the budget process. Divided governments, however, will not have a central player with strong powers over the execution of the budget.*

H1 assumes that presidential systems have one-party executives. To the extent that there are multiparty executives in presidential systems, there may be pressure to weaken the finance minister, and finance ministers would be weaker in multiparty executives than single-party executives. Yet one should keep in mind that the president (or her party where the president is barred from standing for reelection) is ultimately the one whom voters will evaluate in the next elections. Presidents have an incentive to have a central player monitor the budget even when she forms coalitions.

Unfortunately the empirical evidence does not allow us to test these nuances to the argument. The principal data available are from Alesina et al. (1996). They asked budget directors in 20 Latin American and Caribbean countries 10 questions about the budget process in their countries. Their question concerning the finance minister (question #4) asked, "Does the minister of finance have more authority than the spending ministers regarding the budget?" Of 20 countries in their sample, 18 budget directors reported that the minister of finance possessed authority "considerabl[y] greater than that of other ministers" (1996, 43).

This finding is perfectly consistent with the theoretical expectation reported here. Unfortunately, however, the question is also vague. It does not indicate how finance minister power differs across countries, and one cannot tell whether there are differences in presidential systems with one-party governments and presidential systems that establish coalition governments. This question also does not allow us to test directly *H2* because we cannot differentiate between authority that the minister of finance has at different stages of the budget process.

Other parts of the Alesina et al. study are more specific and allow us to examine *H2*. The database includes an index that measures the relative position of the government vis-à-vis the legislature, which they refer to as "Subindex 3."[9] They construct the 20-point index based on survey responses to two questions. The first considers what restrictions are placed on congressional amendments to the executive's budget proposal. They assign countries the following scores: 10 points if amendments cannot increase the size of the budget and the size of the budget deficit;

[9] Alesina et al. (1996) provides the data the same authors use in Alesina et al. (1999).

7.5 points if the government must approve any additional spending proposed by congress; 5 points if amendments cannot increase the size of the deficit; 0 points if no constraint was in place. The second question covers the procedure when a legislature refuses to pass the budget. Discipline is most likely to be maintained if the government budget is implemented even if legislature refuses to pass it, so Alesina et al. (1996) assign countries with this rule in place 10 points. Enacting the previous year's budget implies smaller budgets in real terms, so they assign 6 points if the previous year's budget is enacted. Finally, they grant 5 points when a government resigns as a result of a defeated budget. We rescale Subindex 3 to range from 0 to 1. Scores range from a low of .1 in Trinidad and Tobago and .2 in Honduras to a high of .875 in Chile, Ecuador, Nicaragua, and Peru (after 1990).

We predict that this subindex should be higher for countries that are accustomed to unified/one-party governments. In such countries, we hypothesize that the political party in power benefits from the centralization of the process, which reduces the extent of the CPR problem. Such centralization does exist in Europe's parliamentary systems. Countries with one-party majority governments, and more generally countries that delegate strategic powers to their finance ministers at the cabinet stage of the budget, restrict significantly the ability of parliament to amend the budget (Hallerberg 2000). This prediction is also consistent with case-study work on individual Latin American countries. Jones (2001) finds that the Argentine Congress has a much lower role in the budget process when the President's party does not have hold of a Congressional majority.

Our evidence on this score for Latin American countries does not confirm the hypothesis. Beck et al. (2001) provide a dummy variable for cases where the same party controls both the executive and all relevant houses of the legislature, with a score of "0" indicating that there is divided government and a "1" indicating a unified government. We compare whether a country had one-party governments with Subindex 3 from Alesina et al. (1996). We find little correlation between the two, and the correlation has the wrong sign: the score is −.24, which indicates that united governments have somewhat weaker executives. This means that unified governments are no more likely than divided governments to centralize the budget process around the executive.

Budget Discipline

The discussion above indicated that the CPR problem should be more or less the same in all cabinets in our data set. In contrast, the CPR problem varies across legislatures because of the range of electoral systems in use. This leads to two predictions about budgetary performance:

> *H3: States that lack strong central players within the cabinet will have, on average, larger budget deficits than states that do not.*
>
> *H4: Centralization under the president (or prime minister) on budget issues will have a greater effect the higher the level of the personal vote.*

Our first hypothesis here cannot be directly tested with Latin American and Caribbean countries because there is little variation in the Alesina et al. (1996) survey results for the strength of the finance minister—virtually all countries report that there is some centralization of the process under the finance minister. This result suggests that the crucial issue concerns the relationship between the legislature and the executive.

We do, however, have adequate data to test H4. To test H4, we create an interactive term between the strength of the executive vis-à-vis the legislature, which is again Subindex 3 in Alesina et al. (1999), and the level of the personal vote, which is the index for the personal vote we create above. Our expectation is that there should be little practical effect of more centralized procedures around the president where the personal vote is low in the legislature, but the more centralized system will have an important effect in reducing deficits where the personal vote (i.e., fragmentation) within the legislature is high.

Table 2 reports regression results from the 20 Latin American and Caribbean countries included in the Alesina et al. (1999) data set for the time period 1988–97. A lagged dependent variable is included to correct for autocorrelation. We rely on panel-corrected standard errors to correct for fact that we have more countries in our data set than years, and we include dummy variables for years to account for possible time effects.[10] All regressions have both economic growth and the log of the inflation rate to control for the effects of a country's economic performance.We expect that economic conditions have an effect on the budget balance.[11]

[10]For more details see Beck and Katz (1995).

[11]The exact effect of economic growth is not clear a priori. The relationship in OECD countries is countercyclical-that is, the balance improves when the economy improves because of decreased expenditures and increased taxes while the balance declines when the economy declines (e.g., Hallerberg and von Hagen 1999). Talvi and Vegh (2000) indicate that the relationship is procyclical in Latin American countries. The explanation is that it is easier to make budget cuts when politicians can argue that times are tough. When economic growth is strong, different societal groups pressure the government for money and deficits arise. Similarly, inflation could

TABLE 2 The Interaction of Presidential Power and the Extent of the Personal Vote within Congress

Central Government Budget Balance the Dependent Variable (standard errors in parentheses)	
Variables that Test Hypothesis H4	
Personal Vote Index	−14.2*
	(7.8)
Executive Strength vis-à-vis the legislature Index	−0.86
	(2.5)
Executive Strength Index ∗ Personal Vote Index	18.1*
	(10.9)
Control Variables	
Constant	−0.61
	(2.2)
Lag of Budget Balance	.34*
	(.17)
Economic Growth (Real)	.09
	(.06)
Log of Inflation	.07
	(.30)

*$p \leq .05$, **$p \leq .01$. Standard errors in parentheses. Significance levels based on a one-tailed test for the political variables. $N = 179$, $r^2 = .35$. Panel corrected standard errors with year dummy variables. The dependent variable, surplus/deficits, represents the central government's budget balance as a percentage of GDP and comes from Inter-American Development Bank (1999a). Data for elections to the lower house of the legislature and presidential elections come from L'État du Monde (various years) and Europe World Yearbook (various years). We calculate the percentage of a given year before an election as x/360, where x represents the day of the year. Economic growth and inflation are from Inter-American Development Bank (1999a,b).

The regression results are encouraging. Table 2 indicates that increases in the personal vote have a negative effect on the budget balance as we would expect, and the interaction term has the expected positive sign. Both variables are also significant at the $p < .05$ level with a one-tailed test. Yet the regression equation by itself is not a good test of our central hypothesis, which assumes an interactive effect between the personal vote and executive authority in the budget process. One should keep in mind that the coefficients for the personal vote and executive authority indices demonstrate the effect of the respective variable when the other variable is zero; that is, when the personal vote index is zero increases in executive authority have an insignificant effect on the budget balance. We therefore compute conditional coefficients as well as conditional standard errors. Graph 1 plots the conditional coefficients of the interactive term *given* certain values of the personal vote index.

also go either way. It can represent an "inflation tax" that reduces the real size of aggregate public debts and that leads to lower debt payments and, consequently, improved budget balances. On the other hand, inflation can increase the costs of public outputs as the government seeks to maintain their real value.

Graph 1 indicates that centralization of the budgetary process is especially effective where incentives toward the personal vote are high. Values before the grey line at a value of .2 for the personal vote are not significant at the .05 level with a one-tailed test (below .24 for a two-tailed test). One can see that at low levels of the personal vote increases in the strength of the president have little effect; for Paraguay, for example, which is the state with the lowest personal vote index in the sample, an increase of the power of the president vis-à-vis the legislature from its value of .4 to the level in Uruguay (.675) would lead to an insignificant improvement of the budget balance of .15 percentage points of GDP. If Paraguay changed its electoral system to the "mean" country in the sample with a personal vote of .24, the same increase in the power of the president improves the budget balance by a statistically significant .88 percentage points of GDP. If Paraguay had an electoral system equivalent to the most extreme value of the personal index, found in Colombia, increasing the power of the president again by .275 would improve the budget balance 3.5 percentage points.

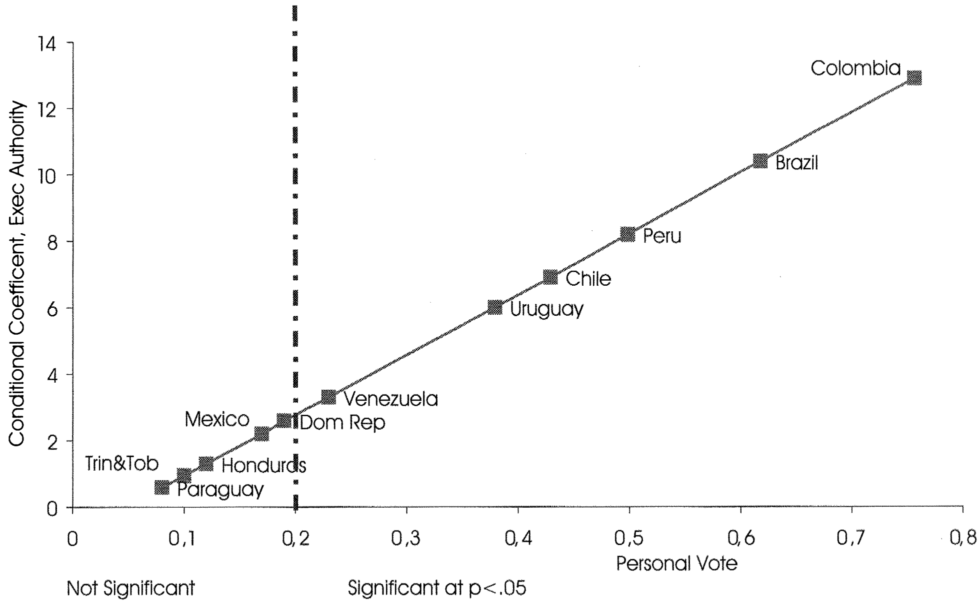
We can also consider the practical policy implications of this exercise. If Brazil were to have a president with the same powers the president had in Chile, the budget balance could have been on average 4.2 percentage points of GDP better than it was in the time period. More generally, these findings indicate that greater centralization of the budget process is not equally effective. One must be aware of the incentives that the electoral system creates for decision makers before one can understand whether a stronger president would alleviate fiscal problems in a given country.

Alternative Explanations

Our initial results do not consider several alternative political explanations for our findings. Table 3a presents a set of regressions to examine whether the results change when we include 10 additional variables that may be relevant. Table 3b compares both the conditional coefficients for executive strength as well as the level of the personal vote where that coefficient becomes statistically significant at the $p < .05$ level.

The first explanation we consider is district magnitude. A central claim of this article is that it is the effects of district magnitude on the size of the personal vote, rather than district magnitude itself, that affects the budget balance in Latin American and Caribbean countries.

GRAPH 1 The Conditional Effects of Increases in the Power of the Executive Given Different Levels of the Personal Vote in the Legislature, 1988–97



Because of clustering not all countries in the data set are included in the graph. See Table 1 for the values of the personal vote for all Latin American and Caribbean countries.

Stein, Talvi, and Grisanti (1999) argue that electoral systems with high average district magnitude have higher debts and deficits than electoral systems with low district magnitude, such as majoritarian systems where district magnitude equals one. Column 1b of Table 3 reports our regression with the coding of district magnitude used in Stein, Talvi, and Grisanti (1999). The coefficient on district magnitude is hardly distinguishable from zero and is not statistically significant.

Another hypothesis concerns the effects of fiscal institutions more generally instead of just the interaction between the strength of the executive and the electoral system. Alesina et al. (1999) create a broad index, and they find that higher levels of their index lead to greater budget discipline in Latin American and Caribbean countries. They also divide their index into four subindices to represent the effects of different combinations of institutions. Note that the basic argument of this article is that it is the interaction effect of Alesina et al.'s Subindex 3 on the position of the executive with the incentives for the personal vote in the legislature that should be most critical, not the index itself. In fact, in their Working Paper (Alesina et al. 1996), they divide up their regressions into these subindices and find that only Subindex 1 and Subindex 3 are statistically significant. In their 1999 published version, they have just three subindices, and they find that the constitutional constraint is the only significant subindex.

Column C presents results that include all four indices from Alesina 1996.[12] As expected from their article, constitutional constraints continue to result in better budget balances. Yet the effects of the interaction between the Personal Vote and Executive Strength become more pronounced—while the coefficient on the noninteracted Executive Strength variable remains insignificant, the coefficient for the interaction term increases. In practical terms, Table 3b indicates that the conditional coefficient of Executive Strength becomes significant at the .05 level when the Personal Vote Index is equal to .08 with a one-tailed test (or .09 with a two-tailed test). That is, the effects of strengthening the executive become significant in Graph 1 just after Paraguay instead of just after the Dominican Republic, and the slope of the line in the Graph is steeper.

The third alternative explanation focuses on explicitly political variables, such as whether there exists united or divided government as well as the partisanship of the government. Divided governments, where the party(ies)

[12]Note that their paper did not consistently include data for Nicaragua. We thank Maria Pia Scalfo for obtaining this data based on her interviews of high-level budget policy makers in successive Nicaraguan governments 1980–97.

TABLE 3A **Comparison of Alternative Explanations**

Variables that Test Hypothesis H4	Original Model (A)	District Magnitude (B)	Original Budget Inst. Index (C)	Unified Govt (D)	Partisanship (E)	Elections (F)	Federalism (G)	Military Spending (H)	IMF (I)	All (J)
Personal Vote Index	−14.2*	−13.8*	−15.5**	−12.8	−14.0	−13.7*	−14.6*	−15.4**	−14.1*	−20.8*
	(7.8)	(7.7)	(6.5)	(8.4)	(10.9)	(7.8)	(7.7)	(5.5)	(7.6)	(9.8)
Executive Strength vis-à-vis the	−0.86	−1.2	.40	−.13	−.67	−0.91	−.94)	−.57	−.89	−1.0
Legislature Index	(2.5)	(2.9)	(1.3)	(2.9)	(2.2)	(2.4)	(2.57)	(1.2)	(2.5)	(4.3)
Executive Strength Index ∗ Personal	18.1*	18.6*	17.7**	16.3	17.8	17.5*	18.6*	20.9*	18.0*	23.5*
Vote Index	(10.9)	(11.3)	(8.5)	(12.1)	(12.2)	(10.7)	(10.9)	(7.6)	(10.6)	(11.7)
District Magnitude		−.03								−.03
		(.03)								
Budget Institution Subindex 1			1.6*							3.5
(Const. Constraints)			(0.9)							(3.3)
Budget Institution Subindex 2			0.73							.26
(Strength of FM)			(1.2)							(2.0)
Budget Institution Subindex 4			0.40							.14
(Transparency)			(0.89)							(2.3)
Unified Government				.19						−.78
				(52)						(1.1)
Partisanship					.20					.49
					(.18)					(.36)
Election						−.62				.43
						(.78)				(.88)
Federalism							.11			.21
							(.24)			(.45)
Defense Spending								−.74**		.33
								(.13)		(.75)
IMF Program									.63	.41
									(.60)	(.50)
Lag of Budget Balance	.34*	.33*	.28	.33	.42	.33*	.34*	.36	.34*	.36
	(.17)	(.17)	(.16)	(.20)	(.24)	(.18)	(.17)	(.08)	(.17)	(.20)
Economic Growth	.09	.09	.09	.09	.06	.10	.09	.08	.08	.03
	(.06)	(.07)	(.06)	(.07)	(.04)	(.06)	(.06)	(.06)	(.07)	(.05)
Log of Inflation	.07	.10	.15	−.02	.05	.15	.06	.28	.10	.21
	(.30)	(.28)	(.26)	(.32)	(.55)	(.30)	(.30)	(.23)	(.33)	(.50)
Constant	−0.61	−.50	−3.3	−.78	−.78	−.61	−.54	−.10	−.73	−3.9
	(2.2)	(2.3)	(2.1)	(2.6)	(2.3)	(2.0)	(2.2)	(1.58)	(2.2)	(3.9)
R^2	.34	.34	.36	.34	.41	.31	.34	.45	.35	.45
N	179	179	179	174	160	179	179	163	170	145

TABLE 3B Cut-Point of the Personal Index Where the Conditional Coefficient for Executive Authority Becomes Significant

	Original Model (A)	District Magnitude (B)	Original Budget Inst. Index (C)	Unified Govt (D)	Partisanship (E)	Elections (F)	Federalism (G)	Military Spending (H)	IMF (I)	All (J)
Conditional Coefficient at the Point Where It Becomes Significant at p < .05	2.8	3.1	1.8	3.1	Not significant	2.7	2.6	1.28	2.7	3.8
Value of the Personal Vote Index Where the Conditional Coefficient Becomes Significant	.20	.23	.08	.20	Not significant	.20	.19	.09	.20	.19

controlling the executive is different from the party(ies) controlling the legislature, may result in higher deficits (Kiewiet and McCubbins 1991). However, Tsebelis's recent work (2002) on veto players would suggest that divided governments would simply "lock in" either higher or low budget balances, so that there should not be a pattern per se between the level of the budget balance and divided or united governments. Another possible political effect Hibbs (1977) emphasizes for OECD countries is that left governments may be more willing to have lower budget balances than right governments. Whether partisanship operates the same way in developing countries is an open question, however, with the relationship between the partisanship of the executive and economic policy especially inconclusive (e.g., Johnson and Crisp 2003).

Columns D and E indicate that the coefficients for neither partisanship nor the unified government dummy variable approach statistical significance. Including these variables also weakens the effects of the interaction between the personal vote and executive strength. While the coefficients do not change much, standard errors do increase. The effects of partisanship in particular seem to change the substantive interpretation of the results, so the regression with all relevant variables (discussed below) is relevant to see if inclusion of partisanship continues to have an effect.

Column F considers whether there are political business cycles in Latin America that affect the budget balance and whether these cycles impact the effectiveness of executive strength. The expectation is that the deficit will worsen in years before an election. We code both the election year for the President and the election year for the lower house of the legislature as the proportion of that year that fell before an election. If the country is a presidential democracy, then we code the time before a presidential election, while if the country is a parliamentary election we code the time before an election to the lower chamber of parliament. The coefficient for the electoral variable has the expected negative sign, but it is small and is not statistically significant.[13]

Federalism may also play an important role. We do consider central government budget balance rather than general government balances, so the fiscal decisions of subnational governments do not affect directly the balance. Yet there may be more indirect effects. National governments may be compelled to spend more to support governors allied with the central government, while politicians in the national congress may want to further their

[13]We also considered an alternative following Franzese (2002) where in cases where countries have both presidential as well as legislative elections each election is given a weight of .5 in constructing the variable. The results do not change.

political careers by running for office at the provincial level (Samuels 2002; Tommasi, Saiegh, and Sanguinetti 2001). The central government may also bail out insolvent subnational governments in federal countries like Brazil. The expectation is then that federal governments should have lower budget balances than more centralized governments. Based on the literature on this subject (e.g., Escobar-Lemmon 2001; Gibson 2003), we include a dummy variable for countries that are federal systems (Argentina, Brazil, Mexico, and Venezuela). The variable is not statistically significant.

A possible shock that could affect budgets is military conflict. There was a border skirmish between Peru and Ecuador in 1995, for example, and some countries like Nicaragua faced internal conflicts. At the same time, the democratization of most of Latin America may have made military spending less relevant for budgets than in the past. Recent studies find an increase in nonmilitary spending relative to military spending since democratization (Lahera and Ortuzar 1998; Lebovic 2001). Column H analyzes the effect of military spending onto our model using data from the U.S. State Department (1998 ACDA Report).[14] The results indicate that military spending does have an effect on the budget balance as expected. However, this relationship disappears completely once we remove an important outlier from our dataset: the 1990 military expenditure of Nicaragua, which represented 21% of GDP at the end of a 10-year civil war.[15]

Another type of "shock" that could hit a country is the introduction of an IMF program. Such programs often require countries to promise to fulfill certain macroeconomic goals in order to received IMF support. Outside pressure from this international organization rather than a country's domestic institutional makeup may be what is driving the results. Hutchison (2001) provides a detailed list of the years in which developing countries implemented an IMF program that we can use to test this argument. The variable has the expected sign, indicating that budget balances are higher when countries have IMF programs in place, but the variable is not significant.

The final column presents regressions results with all variables included.[16] Our concern throughout is whether the addition of these additional variables changes the substantive interpretation of our results, and the greatest test comes from including all variables in one regression. This regression also allows us to consider whether the inclusion of partisanship in particular undermines our argument given that the regression with partisanship is the only regression where the conditional coefficient for the strength of the executive is not significant. Both tables indicate that the results *strengthen* when all variables are included. The cut-point for the conditional coefficient is at essentially the same level of the personal vote, or .19, but the effect on the budget balance is greater because the conditional coefficient is larger.

Conclusion

This research has implications for the design of institutions in relatively new democracies. Some countries are debating strengthening the position of the executive in the budget process. In Mexico, for example, there is discussion to continue with the previous year's budget if congress refuses to pass the president's proposal.[17] If this proposal becomes law, it will be a move from the practice whereby no spending at all is allowed and where the president often felt pressure to back down. As Alesina et al. (1999) indicate, the reform proposal would represent an increase in the strength of the president. We argue that, to assess the impact of the reform, one should also consider the personal vote in Mexico. Mexico's personal vote index is at .17, and the empirical results indicated that in some regressions this value was just statistically significant and at other times just insignificant. Extrapolating from our core regression in Table 2, the increase in the strength of the executive vis-à-vis the Mexican Congress provided for in the reform would increase the budget balance by .47% of GDP.

[14]We also consider alternative sources of data on military budgets, such as the Stockholm International Peace Research Institute (SIPRI) and the International Institute for Strategic Studies (IISS). The advantage each of these datasets has over the State Department data is that they try to standardize the accounting rules to calculate "military spending" while the State Department data set includes what the countries themselves declare. The disadvantage is that each data set does not cover as many countries and/or years. They do sometimes provide data that are missing in the State Department data set, however, so we considered each data set alone as well as a combined variable that added data when the State Department where possible. In all of the cases, the variable for military spending was insignificant.

[15]Long-run expenditure in Latin America tends to be at a level of 2–3% of GDP, which is well below the level of 6–7% for other developing regions (Looney and Frederiksen 2000).

[16]This regression uses the supplemented State Department data on military spending described in footnote 14, which allows us to increase the number of observations and allows us to compute panel-corrected standard errors. We also ran the regressions with the State Department data only and without panel-corrected standard errors, and the cut-point as well as the conditional coefficient is almost exactly the same as the regression without the additional variables.

[17]See Mexico Ministry of Finance, Investor Relations Office, "Fiscal, Financial, and Budgetary Initiatives." April 5, 2001 (http://www.shcp.gob.mx/english/iro/index_docs.html); and Weldon (2002).

Yet not all countries that intend to increase fiscal discipline are willing to strengthen the hand of the president. Most Latin American states have experience with dictatorships, and there are understandable reasons why many people fear delegating to the president on budget matters. This article introduces another path. In countries with serious budget difficulties and where the CPR problem is high in the legislature, a change in the electoral system is an alternative. Brazil, for example, would solve some of its many budget problems by moving from an open-list to a closed-list PR system. This would be a useful addition to the Fiscal Responsibility Law that passed in 2000, which imposes sanctions on overspending budgetary targets at all levels of government and which introduces a multiannual expenditure target framework.

This research also indicates that changes to electoral systems have broader implications than many reformers may at first consider. There has been discussion in Argentina, for example, to move from a closed- to an open-list proportional representation electoral system. The reasoning is that the direct election of candidates would strengthen the link between the voter and her representative in congress. Argentina has a comparatively strong president, but such a move would nevertheless place additional pressure on public finances in a country already facing serious fiscal problems, and a further strengthening of the powers of the president should be considered in tandem.

Finally, it is important to return to arguments about the CPR problem at the cabinet level. We argue that strengthening the finance minister's role in the formulation of the budget within the government reduces the problem at the governmental stage. As Hallerberg and von Hagen (1999) indicate, however, negotiated fiscal contracts among coalition parties is a better solution to the CPR problem in countries with coalition governments. Coalition partners are unlikely to delegate much authority to one central player, such as a finance minister, when they expect to run against each other in the next election. Our expectations about the role of the finance minister would therefore change if Caribbean countries formed multiparty coalitions or if presidents formed coalition governments that approximated those found in Western Europe with other parties and invited representatives from those parties to join the cabinet. While there is some work on what amount to presidential coalition governments in Latin America (e.g., Amorim Neto and Tafner 2002), the literature so far has not systematically considered how such arrangements affect negotiations on the budget.

This comment leads to a final observation. Our data remain relatively poor. We could not test with any satisfaction whether there are differences in the role of finance ministers in this set of countries because no one has investigated the role of such players in the government beyond the simple question of "are finance ministers stronger than other ministers." We need more data for more countries and over more years if we seek greater understanding about the role of fiscal and electoral institutions in developing countries. The evidence in support of the importance of domestic institutions in the setting of budgets should provide inspiration for the collection of data.

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