Electoral Incentives and Budgetary Spending: Rethinking the Role of Political Institutions

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Abstract

This paper reconciles the long-standing debate on electorally motivated government spending by embedding politicians' electoral incentives in political institutions. Using budgetary spending data from 21 OECD countries from 1973 to 2000, this paper shows that electoral budgetary cycles take the form of higher district-specific spending under single-member district systems and higher social welfare spending under proportional representation systems. This study also shows that budgetary cycles are constrained by multiple veto players. The results remain robust even after taking into account the effect of exchange rate regimes and the possibility of strategically timed elections.

"The single most important fact about politicians is that they are elected. The second is that they usually seek reelection."

– Tufte, *Political Control of the Economy*

Perhaps the most intriguing and perplexing feature in the political business cycles (PBC henceforth) literature is the continuing imbalance between its theoretical plausibility and empirical support. Early PBC models, pioneered by Nordhaus' (1975) and Tufte's (1978) contributions, posited that office-loving incumbents should have both motives and opportunities to artificially boost the economy before elections.[1] However, subsequent empirical studies have found mixed evidence regarding the frequency and intensity of such cycles. Current research contends that the key to fully understanding PBC lies in placing PBC theory in the context of political institutions. Yet again, new debate has emerged over what are the most useful institutional frameworks for analysis.

Roughly summarized, the rejuvenated debate concerning institutional PBC has split into two complementary branches. The first approach, best represented by Persson and Tabellini's (2003, 2005) influential work, emphasizes how institutions shape policy incentives for incumbent governments during elections. Persson and Tabellini find that single-member district (SMD) electoral systems reduce spending and that SMD systems also lead to greater tax cuts than proportional representation (PR) systems during elections. They also find that presidential systems postpone unpopular fiscal policies until after elections. The second approach focuses on how institutions affect the degree to which information on the decision-making process is accessible and available to voters. According to this perspective, the likelihood of occurrence and the magnitude of electoral cycles decrease with the level and age of democracy (Shi and Svensson 2003; Akhmedov and

Zhuravskaya 2004; Brender and Drazen 2005). This informational account is further elaborated in Alt and Lassen's (2006) recent study, in which they identify strong fiscal balance electoral cycles even in advanced democracies with low fiscal transparency.

The present paper builds upon these recent contributions and offers an integrating framework that reexamines the role of political institutions. The basic idea here is that institutions modify voters' preferences over budgetary spending and condition how these preferences translate into incumbents' electoral fortunes. Realizing this situation, office-seeking politicians adapt to different institutional environments by shifting the budgetary composition in the direction of voters' preferences to optimize electoral returns during elections. At the same time, political institutions also restrict incumbents' discretion over budgetary processes and hence act as a constraint. Taken together, I argue that the *type* as well as the *size* of PBC should vary under different institutions.

Specifically, this paper examines whether politicians' choice of, and capacity for, manipulating budgetary policies for electoral gain varies across electoral systems and veto players structures. Following Drazen (2000), I examine fiscal policy instead of monetary policy as the more plausible vehicle of budgetary cycles,[2] and I focus on two types of budgetary expenditures – district-specific spending and social welfare spending. Using government spending data for 21 OECD countries from 1973 to 2000, I show that as elections approach incumbents focus their spending on social welfare programs under PR systems while in SMD systems they turn to localized pork-barrel spending. At the same time, the ability to manipulate fiscal policy around elections is constrained under multiple veto players structures. The empirical results remain robust even after taking into account the effect of exchange rate regimes and the possibility that politicians may strategically choose election timing rather than manipulate budgetary policy.

This paper contributes to the current institutional PBC literature in several ways. First, this paper focuses exclusively on OECD countries, which are more demanding cases for empirically identifying the existence of PBC.[3] In accordance with Alt and Lassen (2006), this paper argues that PBC indeed occur even in advanced democracies once we correctly specify the institutional conditionality. Second, while this paper addresses a similar question regarding the conditioning effect of domestic political institutions, it takes a perspective different from that of Persson and Tabellini. Inspired by other studies (Rogoff 1990; Shi and Svensson 2003; Drazen and Eslava 2005), this paper focuses on how incumbents appeal to voters via shifting budgetary composition rather than overall governmental expenditures or revenues, and by so doing it gives us a more coherent framework for scrutinizing how politicians' electoral preferences are revealed under different institutional arrangements. Additionally, unlike Persson and Tabellini, who implicitly assume that the incumbent is a singular and omnipotent actor, this paper conceives of an observed policy outcome as the result of a series of bargaining processes among heterogeneous policymakers. This paper then takes into account such bargaining processes and focuses on the veto players structure rather than the form of government since the former better captures the potential for policy change across different political systems (Tsebelis 2002).[4] Consequently, this paper proposes an encompassing framework that can simultaneously account for both the form and the magnitude of fiscal policy electoral cycles, resulting in a more complete picture of the relationship between politicians' electoral incentives and fiscal policy outcomes. Third, this analysis explicitly disentangles the issue of endogeneity raised in the electoral timing literature. Finally, this analysis sheds new light on how international and domestic institutions jointly affect PBC.

Political Institutions and Budgetary Cycles

Business cycles have long been a central concern in macroeconomics, and early investigations attributed the repeated fluctuations of aggregate economic activity to the private sector's uncoordinated behavior. Since Nordhaus' (1975) seminal contributions, studies of business cycles have incorporated political factors, and subsequent works have emphasized that the desire for reelection leads incumbents to stimulate the economy or to signal competence to rational voters just before elections. Yet, to date disagreement over the presence and characteristics of PBC remains in both theoretical and empirical work, and the current wave of studies in PBC has shifted to understanding how PBC may be conditional upon different institutional arrangements (Clark and Hallerberg 2000; Shi and Svensson 2003; Persson and Tabellini 2003; Streb and Saporiti 2003; Brender and Drazen 2005; Alt and Lassen 2006).

In line with these recent contributions, I argue that examining PBC models through the lens of institutions is critical. According to Drazen (2000), PBC models are built on three basic components: one capturing politicians' incentives, one specifying how voters form their expectations, and one describing the relationship between government activities and economic outcomes. However, our understanding remains incomplete if we fail to take into account the importance of institutional conditionality. Specifically, while investigating politicians' electoral objectives is useful, it is equally important to recognize that the ways politicians carry out their objectives may vary under different institutions. Indeed, since policy instruments work differently in different settings, politicians are likely to switch among instruments rather than sticking to a single policy tool. Consequently, we should expect the forms of PBC to vary among different institutional settings based on relative

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efficiency. Finally, the strength of the impact of government activity on economic outcomes should also vary as a function of institutions. The rationale is that incumbents have more difficulty in changing the status quo when the policy-making power is dispersed among institutional authorities. Extending this logic, the size of PBC should depend on the institutional conditions under which policymaking takes place.

To elaborate on the conditioning effect of institutions, below I discuss two important institutional dimensions: electoral systems and veto players. The former guides candidates' electoral strategies and hence determines the optimal type of budgetary cycles, whereas the latter captures the extent to which policymaking power is dispersed and consequently affects the size of such cycles. By integrating institutions with PBC, this paper shows how political actors' preferences operate through institutions and then are reflected in budgetary outcomes during elections.

Types of Budgetary Cycles under Alternative Electoral Systems

Although theories of PBC all assume that policymakers are chosen by democratic elections, few such theories have explicitly taken into account electoral systems. This oversight is consequential, as many studies have tied politicians' optimal spending strategies to electoral systems. One upshot is that PR systems are associated with society-wide redistribution activities, whereas majoritarian systems are more likely to focus on district-specific spending. Persson and Tabellini (2002) argue that PR systems encourage politicians to seek broader support in the general population, while SMD systems instead concentrate electoral competition only in marginal districts with more swing voters. Since society-wide redistribution programs are more effective in producing broad support,

politicians have incentives to choose policy programs with society-wide benefits (like welfare spending) under PR. Conversely, under SMD politicians only need to secure electorally important districts with district-specific spending (like pork-barrel spending) that has proven effective in cultivating narrow support. In equilibrium, PR systems are flooded with broad-based redistributive spending, while more geographically targetable expenditures are directed to selected influential constituencies in SMD systems.

The finding that PR (SMD) systems involve more social welfare (district-specific) spending is also endorsed by other studies. Unlike Persson and Tabellini's pre-election model setup, Milesi-Ferretti *et al.* (2002) construct a post-election model in which policy is a product of bargaining among elected legislators. According to their model, spending on redistributive transfers is higher under PR systems, while local spending is higher under SMD systems. This result is due to differences in representation in the two electoral systems: under PR more than one social group will be represented in the legislature, whereas all policymakers are elected by the same social group under SMD.

Voter turnout is another channel of influence leading PR indirectly to more society-wide redistribution than SMD systems. As commonly argued, turnout is higher under PR than SMD systems around the world (Jackman 1987). Importantly, less privileged citizens also vote more frequently under PR, giving them more representation and clout in political processes and forcing the government to be more responsive to their redistributive demands.[5] Finally, PR also leads indirectly to higher redistribution through the composition of government. Iversen and Soskice (2006) argue that PR systems redistribute more than majoritarian ones because they are more likely to produce center-left governments. In short, all these different perspectives lead to the same conclusion: incumbents favor social welfare spending under PR but prefer geographically

targetable spending under SMD systems.

The literature on the redistributive consequences of electoral systems bears directly on PBC theories. Specifically, this literature argues that the optimal type of budgetary policy differs between PR and SMD systems. At the same time, theories of PBC suggest that politicians will attempt to manipulate budgetary policy to enhance their chances of reelection. Tying these two theories together, I argue for conditional cycles with budgetary compositions that take the form of higher district-specific (social welfare) spending under SMD (PR) systems.

Sizes of Budgetary Cycles under Veto Players Structures

Electoral systems guide the ways various political forces compete for office. Once the government is formed, another important institutional dimension is the extent to which policymaking power is dispersed among political actors. Many studies note that institutional checks and balances limit politicians' discretion over economic policies (Hallerberg and Basinger 1998; Henisz 2004). Importantly, incumbents will find implementing their preferred policies during elections more difficult when the policy-making process is subject to multiple policymaking authorities. Alt (1985) argues that changes in partisan composition of government exert an expected partisan impact on the unemployment rate, yet such an effect is less likely to occur under coalition governments. More directly, Streb and Saporiti (2003) construct a formal model to show how separation of powers restricts executive discretion over the budgetary process and reduces PBC. They forcefully argue that separation of powers serves to credibly commit the executive to the optimal fiscal policy, thereby beating the temptation of pursuing

expansionary policy around elections.

The daunting task of systematically quantifying institutions' constraining effects is made easier by Tsebelis' (2002) influential work on veto players, which are defined as individuals or collective actors whose agreement is necessary for a change from the status quo. Specifically, partisan veto players are the political parties in the ruling coalition, while institutional veto players are the political organs whose formal veto powers are legally specified by the constitution. Crudely summarized, veto players theory argues that the incumbent's potential for changing an existing policy outcome is negatively related to the number of veto players and the ideological distances among these players.

A few recent studies apply the veto players model to study budgetary composition. Bawn (1999) finds that among competing theories the veto players model best accounts for the way government alternations affect the budgetary composition in Germany. Tsebelis and Chang (2004) conceptualize the composition of the budget in a given year as a multi-dimensional vector, and they calculate the distance between two budgetary vectors to measure the change in budgetary structure during consecutive years. While they do not identify the sources of change in the budget, they show that countries with complicated veto players structures exhibit greater inertia in the budgetary structure.

Veto players theory has clear implications for PBC models. Particularly, this paper moves beyond Tsebelis and Chang's study and explicitly attributes the shift in budgetary structure to incumbents' strategic considerations during elections. Since electoral budgetary cycles imply changing the existing budgetary structure during elections, it follows directly that incumbents are less capable of manipulating budgetary cycles in a multiple veto players environment. Hence, this paper hypothesizes that the size of electoral

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budgetary cycles is smaller under multiple veto players structures.

Table 1.1 summarizes the preceding discussion concerning theories of institutionally conditioned budgetary cycles. I first ask whether the composition of budgetary spending is related to electoral systems. Within each spending category I then examine whether the size of budgetary cycles is constrained by the veto players system.

[Table 1.1 about here]

Before proceeding, it is important to emphasize that the two institutional arrangements above are closely related to each other. Since Duverger's classic work, a large and ongoing literature has established that SMD systems encourage two-party systems, while PR systems, especially when combined with multiple social cleavages, lead to a higher number of effective parties (Amorim Neto and Cox 1997; Lijphart 1999). Extending this empirical regularity, one might reasonably argue that PR systems lead to a multiple veto players structure since PR systems are associated with a higher number of partisan veto players. Applying this flip side of the logic, SMD systems are likely to produce single-party governments and, consequently, single veto player systems.[6]

The intertwining of PR and multiple veto players structures warrants a clarification concerning overall levels of spending and changes in spending during elections. As argued above, the size of social welfare spending cycles under PR systems should be smaller in the presence of multiple veto players since the winset is smaller. On other hand, however, one should expect that the overall level of welfare spending is higher when there are more ruling parties (i.e., more partisan veto players) in the government because of the common pool problem.[7] In short, multiparty governments with dispersed budgetary authorities are

more likely to have higher levels of spending but smaller electoral cycles than their single-party government counterparts.

Empirical Analysis

To evaluate the above hypotheses, I construct a dataset consisting of 21 OECD countries from 1973 to 2000. The countries studied in this dataset are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.[8]

The Dependent Variable

This paper focuses on two budgetary expenditures: district-specific spending with localized benefits and social welfare spending with society-wide benefits. To measure these two types of spending in a cross-nationally and inter-temporally comparable way, I use the government budgetary expenditure data from the Government Finance Statistics Yearbook by the International Monetary Fund. In this dataset all budgetary expenditures for each individual country are itemized into detailed categories. I use spending on "Social Security and Welfare" as a fraction of total budget expenditures as my dependent variable for social welfare spending, and I use spending on "Economic Services" as a fraction of total expenditures as my dependent variable for district-specific spending.

As Appendix 1 shows, the "Social Security and Welfare" category includes spending on social security, social assistance, and social welfare. These spending types involve transfers that are mostly delivered to groups of individuals with certain qualifying

conditions, such as the unemployed and the elderly. Hence, unless the geographic distribution of groups in need is very concentrated in certain constituencies or the eligibility for transfers can be determined in a geographically distinct fashion, this category should fit closely with our theoretical discussion on spending with broad-based benefits.

On the other hand, the "Economic Services" category consists of spending on agriculture, manufacturing, construction, transportation and other associated infrastructure investments. Economic services programs tend to be specific to localities and are often labeled as pork-barrel spending in the context of U.S. distributive politics (Weingast *et al.* 1981). Importantly, economic services programs are found to be very effective instruments for incumbents to cultivate support, since incumbents can easily allocate resources to their desired constituencies and claim credit (Sellers 1997). Of course, spending categories other than economic services may also involve components that are district-specific and geographically targetable. However, from a comparative perspective, it is fairly reasonable to assert that the extent of district-specific spending that incumbents can use to target marginal districts is highest under the economic services category. Additionally, the dependent variables used here are consistent with those used in other studies.[9]

The Explanatory Variables

To measure the election year effect on budget expenditures, I follow Franzese (2002b) and include a variable that differentiates election years from non-election years.[10] Unlike the conventional dummy variable for election years, this measure better captures the impact of timing within an election year and also takes into account multiple elections in the same year.

Political institutions form another crucial set of explanatory variables in this study. I concentrate on a key distinctive characteristic of electoral systems – its SMD or PR nature. Hence, I use a dummy variable, *SMD*, to indicate countries that employed a single-member district system in a given year. As a first cut to investigate the conditioning effect of veto players structure, I create another dummy variable, *VP*, to differentiate the single veto player structure from multiple veto players systems.[11] Conceptually, this dummy variable captures the stylized distinction between governments with and without veto constraints. To a certain degree, this variable also taps into the ideological congruence of the veto players system, since the single veto player government by definition has no ideological disagreements while the multiple veto players system characteristically is ideologically divergent. Nevertheless, one important caveat of this simplistic dummy variable is its failure to distinguish the exact extent to which policymaking authority is dispersed. As checks for robustness, I will also examine the effect of the ideological distance of veto players.

I also control for other political and socioeconomic factors in my empirical model. First, many scholarly works on redistributive politics have identified the unemployment rate and the ratio of dependence as important societal demands on social welfare spending. Accordingly, I control for the unemployment rate (*UE*) and the dependence ratio (*POP1565*) in the welfare spending equation.

Second, Wagner's Law, or the notion that the size of the public sector increases along with a country's aggregate wealth, also appears frequently in the literature. This proposition is appealing if both district-specific and social welfare spending are assumed to be luxury goods, such that only wealthy countries are more likely to afford them. Accordingly, I include the log of GDP per capita (*lnGDP*) in both spending equations.

Third, widely held partisan theories suggest that the ideological position of a government affects the composition of budgetary policy. In general, these theories argue that left-wing parties – which advocate economic equity and redistribution – tend to spend more on social welfare spending as opposed to right-wing parties. I collect data on party position scores along the left-right spectrum from the most commonly used indexes, including Castle and Mair (1984), Laver and Hunt (1992), Warwick (1994), Huber and Inglehart (1995), and Franzese (2002b). After identifying the ideological position of each participating party in every government using these five indices, I calculate the average ideological position of all governments across the five indices to generate a proxy of government position ($POSITION$). More importantly, since PR systems also induce left-center governments, controlling for the government's ideological position helps partial out the partisan effect from the hypothesized PR effect on social welfare spending.

Fourth, studies of redistributive politics suggest that pork-barrel spending increases with the number of electoral districts. Weingast *et al.* (1981) posit that legislators who represent local districts tend to increase pork-barrel spending, since the cost is only partially internalized while the benefit accrues entirely within the district. Velasco (1999) argues that such collective action problems get even worse as the number of districts increases. To capture the effect of the number of districts, I include the number of electoral districts, ED, in the pork-barrel spending equation.[12] Similar to the GDP per capita variable, I also use a log transformation to cure the skewness.

Finally, I include inflation rates (INF) to avoid potential influence from the change of price levels on the composition of budgetary spending. Scholars have found the effect of inflation to be indeterminate. On the one hand, since inflation provides additional revenue without having to increase taxes, governments may be less likely to adjust their fiscal

policies if their main concerns are revenue seeking and maximizing. Contrarily, if governments are responsive to voters' demands, they are likely to respond to inflation by reallocating budgetary spending (Hallerberg and Basinger 1998).[13]

Model Specification

Preliminary analysis provides only partial evidence of stationarity for both dependent variables.[14] Therefore, I proceed with caution and employ a single-equation error correction model to avoid the danger of estimating a spurious regression (DeBoef and Granato 2001). I remain theoretically agnostic and empirically open about whether the effects of the explanatory variables are transitory or persistent, so I include all explanatory variables in both contemporaneous differences and lagged terms. I report panel-corrected standard errors to guard against potential problems of panel heteroskedasticity and contemporaneous correlation across countries (Beck and Katz 1995).

Empirical Results

To highlight the idea that PBC are institution contingent, I first examine a baseline model in which I temporarily ignore political institutions and investigate the unconditional election year effect on both types of budgetary spending. As the results in Model 1 (Table 2) and Model 3 (Table 3) indicate, the coefficient for the election year variable in this linear-additive model is not significant in either equation, suggesting no statistical relationship between election year and either type of budgetary spending. However, it would be a mistake to conclude that budgetary cycles do not exist, since this naïve model fails to take into account the role of institutions and thus is unable to differentiate various

optimal electoral cycles under alternative institutional arrangements.

[Table 2 and Table 3 about here]

Model 2 and Model 4 test the institutionally conditioned budgetary cycles hypothesis by adding the electoral system variable, the veto player variable, and their interaction terms.[15] In contrast to the previous results, the coefficients for the lagged election year variable are now positive and significant in both equations. Importantly, these coefficients now capture the election year effect when the values of the institutional variables and the associated interaction terms are zero. In other words, the results in Model 2 show that incumbents, when situated within a single veto player structure ($VP = 0$; $VPXELE = 0$), generate social welfare spending cycles under PR systems ($SMD = 0$; $SMDXELE = 0$). Simultaneously, Model 4 suggests the existence of a district-specific spending cycle when domestic institutions are characterized by SMD electoral systems and a single veto player.[16] Equally important, the negative coefficients of the interaction terms between the veto players and the election year variables suggest that the election year effect on budgetary spending decreases as the number of veto players increases.

To further illustrate the institutionally contingent nature of budgetary cycles, I follow Brambor *et al.* (2005) and calculate the marginal election year effects and the corresponding standard errors across different institutional arrangements. The results are shown in Table 1.2, in which the values in the first (second) row represent the election year effect on district-specific spending (social welfare spending). These results strongly corroborate the theoretical predictions in Table 1.1, showing that for countries endowed with a single veto player incumbents focus their spending on social welfare programs under PR while under SMD they turn to localized district-specific spending during elections.

Additionally, we can clearly see that that the size of both budgetary cycles decreases once a system shifts from a single to a multiple veto players structure. This finding again demonstrates the constraining effect imposed by the veto players structure.

[Table 1.2 about here]

Before concluding, I address issues related to model specification, variable measurement, and competing theories, and I implement a series of robustness checks to assure the validity of my results.[17] First, Model 2 and Model 4 suggest that both budgetary cycles manifest themselves in a post-election form. Specifically, the coefficients on the differenced and the lagged election year variables in both models indicate that social welfare spending and district-specific spending tend to rise the year after elections by 1.17 % and .67 % of total budgetary spending (p=.02 and .03, respectively). The findings of post-election cycles are consistent with several other studies (Alesina *et al.* 1997; Franzese 2002b; Alt and Lassen 2006). As Franzese (2002b) posits, such findings can be attributed either to the difference between the calendar-year based election year variable and fiscal-year based budgetary spending or, more plausibly, attributed to the combination of slow budgetary procedures and binding electoral promises in democracies.[18]

On the other hand, the estimates for the differenced election year variable in both models suggest that the size of unconditioned pre-election cycles is modest yet statistically insignificant. However, astute readers may wonder whether political institutions condition not only post-electoral but also pre-electoral cycles. Hence, I re-specify the error correction model to entertain such a possibility.[19]

Additionally, one may reasonably argue against the measurement of the veto player variable since it focuses solely on the number of veto players. Indeed, as Tesbelis (2002, p.

25) notes, the "numerical criterion" trades theoretical accuracy of the veto player model for measurement simplicity. Particularly when a subset of veto players is located within the unanimity core of the other veto players, this subset of veto players becomes "absorbed" and will have no extra contribution to policy stability. To address this issue, I follow Tsebelis and Chang's (2004) operationalization and re-construct the veto player variable by measuring the ideological distances among veto players. Model 5 in Appendix 3 presents the results after taking into account alternative model specification and variable measurement. As we can see, the updated results corroborate and even reinforce all the previous findings. Importantly, the coefficients of both interactive terms are significant with the expected signs, suggesting that electoral systems and veto players structures indeed condition both pre- and post-electoral cycles in the ways suggested by the theory.

Second, one may reasonably question whether the previous model specification runs the risk of omitted-variable bias from unobserved country-specific characteristics such as political culture or geography. To incorporate unobserved heterogeneity across countries, Model 6 in Appendix 3 re-estimates Model 5 with country fixed-effects. Again, all the substantive findings remain unchanged.[20]

Third, a competing literature suggests an alternative view regarding the relationship between elections and the economy. Briefly stated, this school of thought emphasizes that election timing under most parliamentary systems is endogenous and that incumbents may find it easier simply to take advantage of favorable economic conditions by calling an early election rather than by manipulating the economy (Smith 2003). This "political surfing theory" suggests a potential two-way reciprocal causality between electoral cycles and the timing of elections and argues that empirical research of PBC may suffer from inconsistent estimates resulting from simultaneity bias (Chowdhury 1993).

While most studies of surfing theory focus on macro-economic conditions, it is not entirely infeasible that the incumbent might take advantage of a good budget year to call for early elections. I first examine and find no significant difference in the sizes of budgetary cycles between countries with flexible and fixed electoral calendars. This preliminary evidence is in favor of budgetary cycles and against surfing theory. To further test systematically for simultaneity, I implement a Hausman specification test.[21] Under the null hypothesis of no simultaneity, the correlation between the residuals from the reduced form regression and the error term in this expanded regression model should be asymptotically zero. Therefore, if we rerun the estimation and find the residuals variable not significant, we can conclude that our model is free from simultaneity bias. Model 7 in Appendix 4 shows that this is indeed the case empirically. Importantly, the election year variable remains positive and significant, reassuring us of the robustness of institutionally conditioned budgetary cycles. The finding also echoes Heckelman and Berument (1998), who argue that elections should be exogenous to government spending. I repeat the same exercise for the district-specific spending equation in Appendix 5, and the results again show no evidence of simultaneity bias.

Finally, many studies have addressed the importance of exchange rate regimes in shaping domestic PBC, with the rationale that exchange rate regimes systematically guide governments' choices of policy instruments. Building on the insight of the Mundel Flemming theorem and the interest parity condition, Oatley (1999) argues that national governments still manage to maintain their policy autonomy and pursue their distinct partisan goals in the face of increasing capital mobility. The key is that partisan governments rely on fiscal policy tools that remain effective in stimulating domestic demand under fixed rate regimes but turn to monetary policy tools to manipulate interest

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rates under floating rate regimes. Extending this logic, Clark and Hallerberg (2000) and Clark (2003) examine how incumbents respond to constraints imposed by different international institutions when they pursue their electoral interests. Parallel to Oatley's study, these authors find fiscal policy cycles under fixed-rate regimes.

I test the exchange rate regimes hypothesis by re-running an expanded regression that adds a dummy variable for exchange rate regimes and an interaction with the election year variable. Note that just like the intertwining of electoral systems and veto players discussed before, Hallerberg (2002) forcefully argues for another institutional connection between the type of veto players structure and the choice of exchange rate regime. According to Hallerberg, politicians prefer fixed exchange rate regimes when situated in multiple veto players structures since under these circumstances fiscal instruments are more effective in helping politicians to claim credit with their constituencies. On the other hand, politicians under single veto player systems tend to choose flexible rate regimes since the incumbent finds it easier to use monetary policy to sway pivotal districts. This correlation between veto players structure and exchange rate regime, as well as the one between veto players and electoral systems, inevitably introduce collinearity into the model and make it more difficult to assess the conditioning effects of various institutions. Nevertheless, Model 8 (Appendix 4) and Model 10 (Appendix 5) find evidence consistent with the exchange rate regime hypothesis and also support the previous findings of institutionally conditioned budgetary cycles.

Discussion and Conclusion

To sum up, I find that budgetary cycles take the form of higher district-specific spending under SMD systems and higher social welfare spending under PR systems. In addition, the magnitude of budgetary cycles is reduced under the multiple veto players structure. The empirical results remain robust even after taking into account the effect of exchange rate regimes and the possibility that politicians might strategically time elections rather than manipulate budgetary policy. By causally integrating politicians' electoral incentives with institutions in a single framework, I reinforce the importance of institutions and reconcile the long-standing debate on electorally motivated government spending.

This paper also speaks to a growing literature on conditional political budgetary cycles. This paper echoes Franzese's (2002a) emphasis on the importance of institutional conditionality and advances our understanding of how the type and size of budgetary cycles vary across different institutional environments. This paper also parallels Treisman and Gimpelson's (2001) study, in which they argue that politicians switch between different types of policy instruments as costs change when advancing their electoral interests. Importantly, this paper fulfills their unfinished task by specifying explicitly the relative costs and benefits of different budgetary spending under various institutions and by testing the theoretical implications of institutionally conditioned budgetary cycles.

Several issues, however, remain to be addressed. First, as discussed previously, we may expect to find smaller budgetary cycles under PR than SMD systems since multiple veto players tend to coexist with PR. This paper, however, fails to find a significant difference in the size of budgetary cycles between SMD and PR systems. Yet, this issue remains open and awaits more systematic investigations since this study does not compare

the same budgetary instrument across different electoral systems and the model specification also varies across the two types of budgetary cycles.

Second, one important limitation of this paper is that it emphasizes politicians' perspectives over voters' perspectives. The "demand" side of budgetary cycles calls for no less theoretical consideration than the "supply" side since ultimately voters are the ones who decide politicians' fates during elections. Voters' perceptions seem even more pertinent given that electoral cycles do exist in the public mind (Suzuki 1992). Fortunately, many recent contributions have begun to examine whether electoral cycles are moderated by contextual factors that affect voters' perceptions of and information concerning the cycles (Shi and Svensson 2003; Brender and Drazen 2005; Alt and Lassen 2006).

Fruitful research on PBC also focuses on whether an inverse relationship between incumbents' electoral security and the size of electoral cycles exists (Schultz 1995). However, due to the lack of cross-nationally comparable data on incumbents' perceived levels of electoral security, this paper is unable to incorporate this important factor into the model. Another untouched question in this paper is how budgetary cycles are financed. In light of recent evidence that voters persistently punish governments that record increasing budget deficits around elections (Brender and Drazen 2006), we may expect to see that voters only reward budgetary cycles when the incumbent is capable of increasing revenue or at least maintaining the existing level of deficits. In this sense, budget deficits represent another important economic constraint on the occurrence of PBC, and how to integrate institutional and economic factors into a single framework to enrich our understanding of PBC warrants further investigation.

Finally, this paper has far-reaching implications for developing democracies. While no

democratic theorist and political analyst can possibly deny the importance of competitive elections in the process of democratization, electorally motivated government spending raises concerns about the trap of electoralism and the discretion of elected officials in implementing economic policies. Hence, how to balance democratic ideals and economic efficiency through institutional designs remains a challenging task for new democracies.

Notes

[1]Their conceptual problems regarding myopic voters and exploitable short-run Phillips curves led to subsequent theoretical refinements that incorporated voters with rational expectations and politicians with partisan motivations. See Drazen (2000) and Franzese (2002a) for comprehensive reviews.

[2] Drazen argues that "...models based on manipulating the economy via monetary policy are unconvincing both theoretically and empirically, while explanations based on fiscal policy conform much better to the data and form a stronger basis for a convincing theoretical model of electoral effects on economic outcomes" (pp. 3-4).

[3]Brender and Drazen (2005) posit that PBC findings are driven mainly by including new democracies.

[4]Persson and Tabellini (2003, p. 4) themselves acknowledge that "...all in all, we have weaker priors when it comes to how electoral cycles might differ between presidential and parliamentary democracies."

[5]Franzese (2002b, Ch. 2) shows that democratic governments are more likely to respond to social demands through transfer payments when political participation rates are higher.

[6]Preliminary analysis finds that the number of veto players is significantly higher under PR ($p < .001$).

[7]In a decentralized coalition government each ministry is motivated to over-spend to please its constituency since it only has to internalize part of the cost of increased spending.

[8]Periods under non-democratic regimes in Greece (until 1974), Portugal (until 1975), and

Spain (until 1977) are excluded. Also, the data for Italy stops at 1993 when operation *Mani pulite* caused the breakdown of the Italian First Republic. A multiple imputation procedure, implemented by the Amelia program (King *et al.* 2001), was used to deal with missing values in the data set.

[9] Levitt and Snyder (1995) find that federal outlay programs such as agricultural payments and highway construction are more geographically concentrated, whereas programs such as social security and pensions are more geographically dispersed.

[10] $ELE_t = \frac{M+(D/30)}{12}$ where M is the number of complete months prior to the election and d is the day of the incomplete month. Then, 1- ELE_t is attributed to ELE_{t-1}. For instance, the 1998 general election in Australia, held on October 3, 1998, yields .7583 for ELE_{1998} and .2417 for ELE_{1997}.

[11] Data source: Veto Players Data, available at http://sitemaker.umich.edu/tsebelis

[12] Data source: Golder (2005)

[13] See Appendix 6 for a list of variables and their characteristics.

[14] See Appendix 2 for the results.

[15] The coefficients for the lagged dependent variable in both models are negative and statistically significant. Therefore, our inference based on these models should be safe from unit-root concerns.

[16] For ease of interpretation, I replace the SMD dummy variable with a dummy variable for PR in the district-specific spending equation.

[17] See Appendixes 3-5 for the detailed results.

[18]For instance, politicians make budgetary commitments during elections that are only realized fully in the following year.

[19] The key is to decompose and re-arrange the ΔELE term: $\beta_1 \Delta ELE + \beta_2 ELE_{t-1} = \beta_1(ELE_t - ELE_{t-1}) + \beta_2 ELE_{t-1} = \beta_1 ELE_t + (\beta_2 - \beta_1)ELE_{t-1} = \alpha_1 ELE_t + \alpha_2 ELE_{t-1}$. Additionally, based on an intuitive and simplifying assumption that institutions condition both pre- and post-electoral cycles equally, the new model takes the following form:

E(ΔY)$= \alpha_1 ELE_t + \alpha_2 ELE_{t-1} + \alpha_3 SMD \times (ELE_t + ELE_{t-1}) + \alpha_4 VP \times (ELE_t + ELE_{t-1}) + \Psi Z$.

I thank an anonymous reviewer for pointing out this possibility to me.

[20]Note that under this fixed-effects model a bias of order $1/T$ emerges due to the correlation between the lagged dependent variable and the error term.

[21]The intuition of the Hausman test is to examine whether the suspected covariate (i.e., the election year variable) is correlated with the error term (and hence, the spending variable). Operationally, I construct a two-equation model that consists of a social welfare spending equation and an electoral timing equation. The social welfare spending equation is built on Model 2, and the electoral timing equation relates the election year variable to the social welfare spending variable. I also control for minority governments, time since the last election, and the prospects for the future economy. After constructing the model, I first run a regression of the election year variable on all exogenous variables (i.e., the reduced form regression) and then retrieve the residuals. Then, I include the residuals in the social welfare spending model.

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Table 1.1: Institutionally Conditioned Budgetary Cycles: Theoretical Predictions

	Single Veto Player	Multiple Veto Players
SMD	Strong **District-Specific** Spending Cycles	Weak/No District-Specific Spending Cycles
PR	Strong **Social Welfare** Spending Cycles	Weak/No Social Welfare Spending Cycles

Table 1.2: Institutionally Conditioned Budgetary Cycles: Empirical Results

	Single Veto Player	Multiple Veto Players
SMD	.494* [.308]	.272 [.290]
PR	.646* [.377]	.055 [.287]

Notes: The values represent the election year effect on budgetary spending. * $p < 0.1$

Table 2: Estimation Results for Social Welfare Spending Cycles

	Model 1: Institution-free Cycles	Model 2: Institutionally Conditioned Cycles
SWS_{t-1}	-0.033***	-0.031***
	[0.011]	[0.012]
ΔELE	-0.210	-0.199
	[0.191]	[0.197]
ELE_{t-1}	-0.145	0.980*
	[0.287]	[0.545]
SMD_{t-1}		0.782***
		[0.237]
$\text{SMD}\times\text{ELE}_{t-1}$		-1.321***
		[0.431]
VP_{t-1}		0.415*
		[0.228]
$\text{VP}\times\text{ELE}_{t-1}$		-0.986*
		[0.505]
ΔPOSIT	0.163	0.133
	[0.126]	[0.131]
POSIT_{t-1}	0.156*	0.122
	[0.089]	[0.093]
ΔUE	0.180*	0.156*
	[0.092]	[0.094]
UE_{t-1}	-0.087***	-0.101***
	[0.033]	[0.035]
$\Delta\text{POP1565}$	0.231	0.332
	[0.280]	[0.295]
POP1565_{t-1}	0.045*	0.060**
	[0.024]	[0.025]
ΔINF	-0.045***	-0.051***
	[0.017]	[0.017]
INF_{t-1}	-0.033***	-0.034***
	[0.012]	[0.013]
ΔlnCGDP	0.335	0.115
	[0.883]	[0.898]
lnCGDP_{t-1}	0.302**	0.286*
	[0.136]	[0.147]
Constant	-2.225	-3.052
	[1.984]	[2.029]
N	551	547

Notes: The dependent variable = ΔSWS. Panel-corrected standard errors in parentheses.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. All tests are two-tailed.

Table 3: Estimation Results for District-Specific Spending Cycles

	Model 3: Institution-free Cycles	Model 4: Institutionally Conditioned Cycles
DSS_{t-1}	-0.051***	-0.051***
	[0.014]	[0.013]
ΔELE	0.221	0.206
	[0.175]	[0.174]
ELE_{t-1}	0.263	0.875**
	[0.269]	[0.354]
PR_{t-1}		0.078
		[0.212]
$\text{PR}\times\text{ELE}_{t-1}$		-0.782***
		[0.299]
VP_{t-1}		0.014
		[0.178]
$\text{VP}\times\text{ELE}_{t-1}$		-0.225
		[0.382]
$\Delta\ln\text{ED}$	-0.282	-0.255
	[0.362]	[0.363]
$\ln\text{ED}_{t-1}$	-0.029	-0.065
	[0.031]	[0.051]
ΔPOSIT	0.051	0.055
	[0.098]	[0.100]
POSIT_{t-1}	-0.006	-0.008
	[0.057]	[0.061]
ΔINF	0.039	0.042
	[0.028]	[0.028]
INF_{t-1}	0.024	0.024
	[0.019]	[0.020]
$\Delta\ln\text{CGDP}$	0.488	0.529
	[0.661]	[0.661]
$\ln\text{CGDP}_{t-1}$	0.079	0.098
	[0.143]	[0.139]
Constant	-0.512	-0.589
	[1.436]	[1.423]
N	551	547

Notes: The dependent variable = ΔDSS. Panel-corrected standard errors in parentheses.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$. All tests are two-tailed.