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THE POLITICAL ECONOMY OF FISCAL DEFICITS: A SURVEY

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Abstract. This paper surveys recent literature, both theoretical and empirical, regarding political explanations for fiscal deficits. Political economy suggests conflicts of interest may lie behind the emergence of deficits: (1) Opportunistic politicians generate deficits to win elections, even in conflict with general welfare; (2) Conflicts of interests between politicians' partisan preferences create incentives for (at least some) incumbents to run deficits and (3) Conflicts of interest between different social groups or regions generate tensions in the allocation of government resources leading to overspending. This paper reviews these different strands of the literature. It also covers contributions that highlight the crucial role of budget institutions in determining the extent to which the political motivations to generate deficits are indeed translated into poor fiscal outcomes. Promising avenues for future research are highlighted.

Keywords. Fiscal deficits; Fiscal policy; Political economy

1. Introduction

Why do governments run deficits? The standard economics textbook explanation is that fiscal deficits are the result of consumption smoothing attempts on the part of the government (Barro, 1979, is a seminal contribution). For instance, in a framework where the government wants to keep a constant flow of expenditure and constant tax rates (to help consumers smooth their own consumption), deficits will arise in economic contractions, due to a reduction in tax revenues. However, the fact that governments accumulate debt beyond levels that could be plausibly explained on the basis of consumption smoothing theories has been well documented (Alesina and Perotti, 1995). The profession has thus looked for additional possible explanations of fiscal deficits, notably the influence of political considerations on fiscal policy making. This paper reviews selected work from the, by now very rich, literature on political explanations behind the emergence of fiscal deficits. A series of previous papers and surveys carefully summarized the contributions developed in the 1980s and early 1990s (Alesina and Perotti, 1995; Drazen, 2000a, b; Persson and Tabellini, 2002). We, thus, focus on work developed during the last 15 years, both theoretical and empirical.

Heterogeneity and conflict of interest are 'essential to political economy' (Drazen, 2000a, p. 4). The political economy of fiscal deficits is no exception:

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theories that explain the presence and pervasiveness of deficits based on political phenomena are based on some sort of heterogeneity of preferences, leading to conflicts of interests. We classify these theories according to the source of preference heterogeneity giving rise to deficits: preference heterogeneity between policymakers and voters, heterogeneity of fiscal preferences across politicians, heterogeneity of fiscal preferences across social groups or regions.

First, we review studies based on the hypothesis that fiscal policy is decided by policymakers whose choices are intended to maximize electoral support from voters, in conflict with social welfare. Deficits may arise, either in the election period or over the incumbent's stay in power, as the result of attempts by the incumbent to manipulate electoral results using fiscal outcomes. We emphasize recent findings that cast doubt on the traditional view that voters prefer high-spending governments; based on those findings we question the idea that fiscal deficits and delays to adopt necessary adjustments are the result of policymakers' attempts to attract voters. We then review theories whereby policymakers have heterogeneous partisan preferences that translate into deficits. Policymakers of all ideologies mat generate deficits strategically, to tie the hands of successors with different preferences. It may also be the case that deficits arise for policymakers of specific ideologies, as a direct result of their preferences for larger or smaller governments. Recent years have witnessed the emergence of empirical work testing the implications of this literature, and our focus is on assessing that empirical research. Finally, we focus on research that has explained deficits on the basis of the fight of groups with heterogeneous spending preferences over the distribution of government revenues. Theoretical contributions within this branch of the literature have implications that link fiscal outcomes to the characteristics of the electoral system, the type of democracy, and the level of cohesion or fragmentation within the government. We review recent empirical work testing the validity of those implications.

The literature listed above refers to sets of incentives that may lead to deficits. The way those motivations end up shaping actual fiscal balances depends on the constraints that govern decisions on the government's budget. In particular, the rules that govern the drafting, approval and implementation of the budget are likely to affects fiscal outcomes. In recent years there has been a surge of research devoted to budget institutions and their effect on fiscal discipline, which we discuss in the last section.

The paper proceeds as follows. Section 2 discusses theory and evidence on how the opportunistic incentives faced by policymakers determine fiscal balances. Section 3 reviews literature on deficits arising from policymakers' partisan preferences. Section 4 presents the contributions related to conflicts between groups with heterogeneous fiscal preferences. The role of budget institutions is discussed in Section 5. Finally, Section 6 concludes with an overview and critical assessment.

2. Opportunistic Policymakers Running Deficits

Early theories of fiscal deficits arising from political considerations highlight the manipulation of government expenditures by policymakers trying to get re-elected

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(for instance, Nordhaus, 1975; Buchanan and Wagner, 1977). The basic argument is that voters value public spending, specifically its expansionary macroeconomic consequences, but consistently underestimate its costs in terms of the future tax burden, and future inflation and economic activity. Thus, voters support policymakers who provide high levels of deficit-financed expenditures, and oust incumbents who are fiscally conservative. This generates incentives for fiscal irresponsibility. It also generates asymmetric stabilization policies, as policymakers are willing to run deficits to fight a recession but are not willing to run surpluses in good times.

Three elements are fundamental to these early views of why fiscal deficits may result from the opportunistic behaviour of policymakers. First, policymakers are assumed to be interested in garnering votes for themselves or their parties, and must be willing to tilt economic policy to achieve that objective. Opportunistic policymakers, defined as those whose behaviour is intended to maximize votes for them or their parties, rather than simply maximizing social welfare, are then pivotal to this approach. Second, voters are assumed to value public spending, either because of the direct effect of government programs or because of expansionary consequences of spending hikes. Finally, voters in this approach are characterized by 'fiscal illusion', in the sense of consistently underestimating the future costs of current spending programs.

This early literature has been criticized because of the assumption that voters make consistent mistakes (Alesina and Perotti, 1995; Drazen, 2000b). The notion of fiscal illusion implies not only that voters cannot fully understand the government budget, but also that they are repeatedly fooled by politicians. The opportunistic political business cycles literature (Nordhaus, 1975), for instance, exhibits the unsatisfactory feature that voters who have gone through one electoral cycle do not learn from previous experience that pre-election expansions will be followed by contractions. As a result, expansions repeatedly lead voters to support the incumbent, even though there is every reason for voters to expect that these expansions will be followed by a period of poor macroeconomic performance.

Fiscal illusion is not only a precondition for voters to re-elect incumbents who engineer pre-electoral output expansions, but also a precondition for those expansions to materialize in the first place. Rational voters' ability to foresee the consequences of electoral fiscal expansions in terms, for instance, of inflation may make those consequences materialize immediately. This would erode the potential gains in terms of economic activity and, consequently, in terms of the incumbent's electoral performance. As a result, questions about the fiscal illusion hypothesis also bring into question the idea that the government can effectively generate an electoral macroeconomic expansion. The government's ability to manipulate the economy through fiscal expansions is also questionable given the existence of institutional and international constraints. Counteractivism from the Central Bank can leave a government's efforts to stimulate the economy fruitless, as can international capital inflows under flexible exchange rates (Clark and Hallerberg, 2000; Drazen, 2000a; Clark, 2003).[1] Fiscal policy's ability to affect macroeconomic outcomes before elections is thus constrained to very specific combinations of the exchange rate

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regime and Central Bank independence, in particular cases where the exchange rate is fixed (Clark, 2003).[2] Even further, it is not clear that tight fiscal policies are more contractionary than loose ones (Alesina *et al.*, 1998; Gupta *et al.*, 2002; see below for further discussion). If governments know this, they should not even try engaging in a fruitless attempt to engineer an expansion.

Given these criticisms to the early literature on electoral manipulation of fiscal policy, recent contributions have primarily focused on hypotheses whereby voters care about fiscal outcomes directly and not just for their macroeconomic implications. In particular, over the two decades, the literature has found explanations as to why perfectly rational voters would be led by opportunistic deficits or spending hikes to vote for the incumbent. Rogoff (1990) and Rogoff and Sibert (1988) put forward the basic argument: the cost of government programs depends on how competent an official is, and voters have only imperfect information about the competence level of each politician. Voters then extract information about the competence of an incumbent running for re-election from his past fiscal choices. An incumbent who has provided more government programs is inferred to be more competent, and is thus supported by voters. This creates incentives for politicians to run deficits to finance larger expenditures before elections.

One additional ingredient, not fully appreciated in the existing literature, is necessary for this argument to explain the rational manipulation of fiscal deficits: voters must be unable to observe all the details of the budget. More competence is defined as the ability to provide a given level of public goods at a lower cost. Therefore, if voters knew the cost of all projects undertaken by the government, they would perfectly infer from this knowledge the incumbent's competence. Rogoff's (1990) assumption is that voters observe only part of the projects undertaken by the government ('visible' expenditures), while Shi and Svensson (2006) show that opportunistic deficits may also arise if voters observe all government programs, but at least some individuals are not informed about the fiscal balance. In any of these scenarios, the deficit that arises from the opportunistic behaviour of politicians depends on how transparent the budget is: less transparency (or, more 'unobservability') leads to larger opportunistic deficits (Alt and Lassen, 2006; Shi and Svensson, 2006).[3] The ability of voters to understand the government's budget depends on factors such as the government's accounting practices, media development and the sophistication of voters.

Two empirical implications arise from this literature. First, fiscal deficits should be larger in contexts with less budget transparency. Second, electoral periods could be times of high public expenditures and deficits only in contexts where fiscal outcomes cannot be transparently observed by voters. Some empirical evidence seems to support these predictions, and we turn now to discussing that evidence.

In terms of the relationship between budget transparency and fiscal discipline, Alt and Lassen (2006) construct an index of fiscal transparency for 19 OECD countries during the 1990s, using survey responses from those countries' budget directors. They study whether their transparency index is systematically related to the levels of deficit and debt in those countries. Their findings suggest that more transparency leads to lower deficits and debt levels, even after controlling for a

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variety of political and economic factors, and treating transparency as potentially endogenous to fiscal outcomes. Similar findings arise from studies on the effect of general budget institutions on fiscal deficits, which we review in greater detail in Section 5. Though not restricted to fiscal transparency, measures of the quality of budget institutions do account for the transparency of procedures relating to the drafting and the implementation of the budget. For the case of the OECD, Von Hagen (1992) and work building on this early study[4] has a measure of the quality of institutions that includes budget transparency, based both on survey responses by budget officials and on objective measures such as the existence of 'special funds' in the budget. For Latin America, Alesina *et al.* (1999) and Stein *et al.* (1999) also use indices of budget institutions that capture transparency by considering barriers to the ability of the government to acquire debt through decentralized agencies. These studies find that better budget institutions are related to lower deficits. A recent, more comprehensive study (Dabla-Norris *et al.*, 2010), covers a large group of low-income countries. The authors construct an index of budget institutions and procedures covering more dimensions than previous measures. They find that rules ensuring transparency and comprehensiveness of the budget are more conducive to fiscal discipline than other elements of what is considered good budget practice (such as centralization).

A second body of relevant empirical literature relates to the opportunistic use of deficits during election times. This literature has examined the behaviour of fiscal deficits and total expenditures prior to elections in large panels of countries. The main findings are not supportive of unconditional pre-electoral fiscal expansions, or at least not supportive of unconditional increases in government spending before elections. Persson and Tabellini (2003) find no pre-electoral change of government expenditure or surplus in a large sample of economies, developed and less developed economies, parliamentary and presidential democracies, under proportional and majoritarian electoral rules. A similar finding is reported by Brender and Drazen (2005). Persson and Tabellini (2003), on the other hand, find evidence of pre-electoral cuts in tax revenue in large and diverse samples of countries. This evidence is consistent with either an attempt to stimulate the economy (a possibility facing the concerns discussed above about the government's ability to fine tune economic activity) or an attempt to please voters by directly increasing their disposable income. The second possibility arises in the Rogoff (1990) model, but opens the question of whether governments modify tariffs before elections, or decrease tax collections in some other manner. Pre-electoral changes in tax tariffs seems less plausible, given difficulties and delays in getting tax reforms passed in Congress. This is an interesting topic for future research.

While unconditional electoral increases in spending are not supported by the empirical literature, evidence of spending increases before elections is found for specific groups of countries. Schuknecht (1994) and Shi and Svensson (2006) find pre-electoral deteriorations of fiscal balances and increases of public expenditures in developing countries. Brender and Drazen (2005) argue that these findings reflect the experience of 'new democracies', and suggest this may be an indication that political deficit cycles emerge only in contexts where voters and the media have not

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yet developed the ability to efficiently monitor fiscal policy. In fact, in a different paper they show evidence consistent with manipulation of fiscal data in new democracies (Brender and Drazen, 2007). Shi and Svensson (2006) also examine whether electoral deficit cycles depend on the extent of information available to voters. They find the negative effect of election times on the balance to be weaker for higher shares of informed voters.

Buti and Van Den Noord (2003) and Von Hagen (2006), looking at changes in fiscal aggregates beyond what would be simply consistent with the observed change in economic activity and inflation, also find evidence of electoral spending expansions in European Union countries. Their results appear inconsistent with arguments in the previous paragraph suggesting that pre-electoral spending expansions concentrate in countries with less sophisticated voters. One possible explanation for this inconsistency is the different treatment of fiscal outcomes and control variables. However, it may also be the case that even the evidence for Europe fits the hypothesis that electoral changes in fiscal aggregates concentrate in countries with less well informed voters. For instance, Alt and Lassen (2006): for a sample covering only OECD countries, find electoral cycles but only in those countries with low indices of budget transparency. Further investigation on how to reconcile the mentioned evidence for Europe with the rest of the literature reviewed here is desirable.

In short, evidence about the use of pre-electoral opportunistic deficits varies across groups of countries. However, the body of empirical literature seems to support the theoretical prediction that these electoral cycles are a phenomenon of environments where voters cannot effectively monitor the choices of fiscal policymakers. First, findings indicate that fiscal deficits are related to the degree of transparency of the budget. Second, while there appear to be electoral increases in fiscal deficits and government expenditures, these appear to take place mainly in countries where one could argue that voters are less successful in monitoring fiscal outcomes.

2.1 *Do Voters Like High-Deficit Governments?*

The most traditional view of the electoral effect of fiscal decisions has been that voters penalize fiscal adjustments, either because they are contractionary or because voters derive utility from high expected levels of government spending. Recent empirical findings, however, suggest both that fiscal adjustments are not necessarily contractionary and that incumbents who have adopted loose fiscal policies do not receive greater voter support than fiscally conservative incumbents. If anything, the opposite seems true.

Several pieces of evidence show that fiscal adjustments are not necessarily contractionary, and in this sense they should not be punished by voters with preferences towards dynamic economic activity. Alesina *et al.* (1998) examine the behaviour of various macroeconomic indicators before, during and after episodes of fiscal adjustment in 19 OECD countries during the 1960–1995 period. They find that whether or not tight fiscal policies are contractionary depends in turn on

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whether the adjustment is successful in achieving a persistent deficit reduction. Successful episodes of fiscal adjustment are not followed by deteriorations of the macroeconomic environment, whereas unsuccessful episodes frequently are.[5] A related finding is reported by Gupta *et al.* (2002), who study a group of 39 low-income countries during the 1990s and show that strong fiscal balances are associated with high growth, even in the short run.

Findings regarding the fiscal preferences of voters also contradict common wisdom. Based on election outcomes and opinion polls for 19 OECD countries, Alesina *et al.* (1998) find that governments that follow tight policies are no more likely to be replaced than others, nor do they lose popularity. If anything, the opposite holds: after sharp fiscal adjustments based mostly on current spending cuts, the probability that an incumbent remains in power increases. Similarly, various studies for both developed and developing countries show that the share of votes received by the incumbent's party *decreases* with the level of government spending and/or the fiscal deficit observed before the election. Findings in this direction are reported by Brender and Drazen (2008) for a large cross-section of countries, Drazen and Eslava (2010) for Colombia, Brender (2003) for Israel, Arvate *et al.* (2009) and Peltzman (1992) for the United States.

Voters' dislike of high government spending, however, is not independent of the composition of spending. Using data on the elections of mayors in Israel, Brender (2003) finds that, although voters penalize election-year increases in deficits, they reward high expenditure in development projects. Drazen and Eslava (2009) show that the share of votes received by an incumbent party in Colombian local elections increases with capital expenditures (including development projects) observed before the election, even though it decreases with the fiscal deficit. Indirect evidence along the same lines is provided by several studies on pre-electoral changes in the composition of government spending, which are likely to reflect incumbents' beliefs about the political effects of their fiscal choices. This body of work shows that in several countries spending shifts from some categories to others before elections.[6] Two interesting implications of the finding of pre-electoral changes in the composition of spending are worth highlighting: (1) These changes may take place without affecting overall spending, and are thus not punished by fiscally conservative voters and (2) The direction of the change may be such that resources are shifted from categories voters value to others voters care less about. In fact, Drazen and Eslava (2009) find that local government expenditures in Colombia shift from current categories of spending toward capital expenditures before the elections, which is consistent with their finding that Colombian voters reward capital expenditures but punish deficits. Drazen and Eslava (2006, 2009) present models of political budget cycles without electoral deficits, where the composition of government expenditures changes in ways consistent with voters' preferences.

It is also the case that whether voters punish deficits depends on factors that some authors have related to voters' ability to monitor fiscal choices. In Brender's (2003) study, the negative effect of deficits on incumbents' re-election probabilities became evident only in the latter part of his sample period, after the adoption of modern accounting practices and a greater media effort to monitor fiscal policy. Brender

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and Drazen (2008), using a large panel of countries, find that deficits over the previous 3 years reduce an incumbent's re-election chances, but only in established democracies. Voters in these democracies are expected to be able to monitor fiscal policy more effectively than their counterparts in young democracies. Arvate *et al.* (2009) study the outcomes of state-level elections in Brazil, where voting is mandatory. They find that running high deficits does not lead to higher re-election probabilities for incumbent governors, and in states where the level of schooling is above the median it actually reduces the chances that the incumbent is re-elected. The evidence that only well informed voters punish electoral deficits seems to square with the finding, mentioned above, that electoral deficits concentrate in countries with less well informed voters. It may well be the case that politicians facing voters with greater ability to monitor fiscal outcomes realize increased deficits will not be rewarded.

All this evidence suggests that, contrary to conventional wisdom, voters do not prefer high-spending governments. They show preferences for high spending on specific items, but seem to be quite aware of the costs of overall high spending; they support governments that engage in successful and stringent fiscal adjustments when these are necessary, and penalize governments that run large deficits. Relatively uninformed voters, however, seem to be less prone to punishing deficits, probably because spending on projects they favour may be paid for by acquiring debt that is not observed by them. One still open question is whether the differences in voters' attitudes toward deficits between established and younger democracies indeed come, as has been conjectured, from differences in the level of fiscal information voters have.

3. Partisan Policymakers Running Deficits

Deficits can also emerge if different politicians have different fiscal preferences – for instance, reflecting the heterogeneous preferences of voters in a citizen-candidate framework. One argument states that incumbent officials may run deficits to tie the hands of their successors. The argument is based on the fact that current budget deficits impose costs in terms of either lower future public spending or higher future tax collections.

Alesina and Tabellini (1990), and later Alt and Lassen (2006), present models of strategic deficits where politicians have heterogeneous preferences about the composition of public spending. An incumbent who faces the risk of being replaced by someone of the opposing 'party' has incentives to run a deficit and spend the resources on the types of public goods he prefers. If the incumbent is in fact replaced by an opponent, the cost of the deficit (a future spending contraction) will fall disproportionately on the goods the current incumbent values less. The model has three basic implications: (1) officials from different parties, who are assumed to have heterogeneous preferences, spend on different types of public goods, (2) budget deficits increase with the probability the government to being replaced and (3) deficits increase with the level of polarization between the different parties, since greater polarization implies larger differences between the preferences of the

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incumbent and those of his potential replacement, generating greater incentives for the incumbent to run strategic deficits.

A related argument, with implications that contradict the Alesina–Tabellini model over some dimensions, arises when politicians differ in their preferences regarding the optimal size of the government (Persson and Svensson, 1989). Low-spending incumbents faced with a large probability of being replaced in office run deficits (mainly by cutting taxes) in order to force their successors into low expenditure levels. High-spending incumbents, on the other hand, would run surpluses by raising taxes, to force successors to spend those additional resources. The model thus predicts that conservative incumbents will run deficits when they expect to be replaced, while liberal incumbents will run surpluses in similar circumstances. The differences between the choices of parties with diverging ideologies should be starker in more polarized contexts, where the preferences of opposing parties are further apart. Note also that, in contrast to the Alesina–Tabellini model, deficits arise in this model only under conservative governments.

The last decade has witnessed several attempts to test the empirical relevance of the competing theoretical arguments outlined above. There are studies that examine large samples of countries and studies that examine US states; neither has found consistent evidence in favour of either model of strategic use of deficits. Lambertini (2003), for instance, studies two large data panels: US states between 1960 and 1995, and a sample of 16 OECD countries for 1960–1992. She does not find any significant effect of the probability of being re-elected on the budget surplus, nor differences between different parties in terms of either defence spending or budget surpluses. Findings inconsistent with strategic use of deficits are reported for samples of industrial countries by Grilli *et al.* (1991), who find changes in government party are unrelated to debt growth, and by Franzese (2000), who finds that leftists run surpluses and rightists run deficits precisely when the risk of being replaced is low, contrary to the predictions of the model. In a panel of 71 democracies over three decades, Brender and Drazen (2009) fail to find evidence of changes in the composition of spending in the years that follow a change in leaders. Crain and Tollison's (1993) findings for the USA are also unsupportive of strategic deficits. The only cross-country evidence favourable to the Persson–Svensson hypothesis on strategic deficits is found by Alt and Lassen (2006), who find that countries with higher frequency of right-wing governments exhibit higher levels of debt by the end of their estimation period. They do not directly test, however, whether right-wing governments run higher deficits.[7]

It has been recently argued, however, that the lack of evidence in support of strategic models of the deficit is due to the use of data on countries or states faced with widely different political, legal and economic environments (Petterson-Lidbom, 2001; Sutter, 2003).[8] As it is difficult to appropriately control for these sources of variability, attempts to discover strategic patterns in the deficit data may be affected by the presence of effects not accounted for. Petterson-Lidbom (2001) tries to overcome this difficulty by examining the accumulation of debt by Swedish local governments between 1974 and 1994. The advantage of these data lies in the fact that Swedish localities are all subject to the same institutional and constitutional

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framework, rather than having state-specific budget institutions, as is the case in the USA and other countries. The study uses a two-stage procedure, where the first stage fits a probit model on the probability of being defeated in the next election, and introduces several controls. The author finds evidence that supports the Persson–Svensson theory of strategic debts: the amount of debt accumulated by a right-wing government increases with its probability of electoral defeat, while the opposite is true for left-wing governments. His finding, in turn, contradicts the Alesina–Tabellini model, which predicts that debt accumulation by *any* government should increase with the probability of defeat.

An interesting experimental study also presents evidence that the strategic use of deficits may be masked when widely different subjects are studied. Sutter's (2003) experiment presents pairs of individuals with the decision to allocate a given budget over two time periods, and over two goods in each period. Choices are made by one of the two individuals, and each faces a positive probability in each period of being the one making the choices. The experiment assigns payoffs to each combination of the two goods, defining the preferences of the two agents over the allocation of the budget, as in Alesina and Tabellini (1990). Greater polarization can thus be defined as more heterogeneous preferences between the two individuals. The author presents each pair of individuals with the same experiment in several trials, varying the level of polarization and the probability of 're-electing' the first period decision maker in each trial. He finds that spending in the first period (and thus the 'deficit') rises with a higher degree of polarization and a lower probability of re-election, supporting the Alesina–Tabellini model. However, when the experiment is conducted with different pairs of individuals and with only one trial for each pair, there is no systematic effect on the deficit of letting polarization and the probability of re-election vary across pairs. The author concludes that, while deficits are indeed used strategically, this phenomenon is hard to identify in the data if other sources of heterogeneity are not appropriately controlled for.

In summary, while the empirical approach based on large data panels has been unable to uncover much evidence that deficits are used to tie the hands of successors, some recent developments have suggested two promising avenues. The first of these approaches points in the direction of testing the theory on panels of governments subject to common sets of institutions, as in Petterson-Lidbom's study for Sweden. The challenge for this approach is to show that the findings are not specific to a given case, but can be generalized at least within some context. A second promising approach uses controlled experiments. In this case, the challenge seems to lie in designing experiments that can replicate sufficiently closely the motivations behind the fiscal choices of governments, as opposed to the decisions individuals take on their own finances. Future literature on the strategic use of deficits must also address the question of reverse causality in the relationship between the probability of being re-elected and the likelihood of running a deficit. While empirical tests of strategic deficits assume deficits are caused by an incumbent's fear of losing the election, the literature on opportunistic fiscal outcomes reviewed in Section 2 suggests that fiscal outcomes affect the probability that the incumbent is re-elected. The methodological

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challenge is how to disentangle to what extent causality goes in one or the other direction.

A different strand of theory also implies that deficits may arise as a result of partisan differences in preferences across politicians. In particular, under the 'partisan cycle' hypothesis it is expected that liberal governments run deficits and conservative governments run surpluses, in perfect opposition to the predictions of the Persson–Svensson model. Inspired by a seminal contribution by Hibbs (1977), the preferences of left-wing politicians for large governments that stimulate economic activity are expected to translate into fiscal deficits when they are in power, while the opposite is expected when right-wingers are in power. The partisan-cycles hypothesis is subject to the same criticisms facing the traditional political business cycles literature: since the underlying assumption is that left-wingers try to use policy to stimulate economic activity, their existence depends on the monetary and exchange rate regimes and institutions (see, e.g. Oatley, 1999; Clark and Hallerberg, 2000), and more generally on the government's ability to manipulate economic activity. Furthermore, preferences for larger or smaller governments translate directly into deficits or surpluses, as assumed by this literature, only when revenues are considered exogenous. The latter assumption is called into question by the Persson–Svensson model summarized above.

Empirical evidence of unconditional partisan cycles is weak. As mentioned above, differences between right-wingers are left-wingers are not clear-cut. Clark (2003, p. 49) also concludes that the evidence for the 'Hibbsian relationship between fiscal policy and the ideological orientation of the government is mixed at best'. On the other hand, Clark and Hallerberg (2000) and Oatley (1999) find evidence of partisan fiscal cycles for countries under fixed exchange rates. One concern with these findings is the question of endogeneity in the choice of exchange rate regimes. Moreover, given criticisms to the conceptual basis for Hibbsian cycles, future research should further explore these findings, and in particular evaluate whether they can be accounted for by alternative explanations for partisan differences in fiscal policy.

4. Distributional Conflicts, Electoral Systems and Fiscal Policy

Heterogeneous interests across groups of voters have been put forward as another reason for potentially pervasive deficits. Weingast *et al.* (1981) and Baron and Ferejohn (1989) present seminal contributions explaining the fiscal consequences of having disperse interests influence the budget. The problem arises if the agents making budget decisions represent groups interested in different government-funded projects, with government revenues being centralized. The benefits of a given government project are then concentrated, while its costs are shared by all groups. The consequence is that each group internalizes the full benefit of specific projects, but only part of the cost, resulting in over-provision of government projects. For given revenue, the size of the budget and the deficit increase with the number of districts participating in the design of the budget, termed 'fragmentation'. More recent models of spending and/or deficit bias arising from common pool

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problems are presented by Von Hagen and Harden (1995), Velasco (1999, 2000) and Krogstrup and Wyplosz (2010).

Distributional conflicts have also been used to explain why fiscal adjustments are not adopted as soon as they are recognized as being necessary. Alesina and Drazen (1991) model the decision to adjust as a 'war of attrition' between groups that decides which will pay the costs of the adjustment. Adjustment is undertaken when one group accepts to pay these costs, estimating that its additional tax payments related to further delaying exceed its benefits from waiting for someone else to concede. Velasco (1999, 2000) explains delayed adjustment from a common-pool problem similar to arguments discussed above. In a model where voters have preferences over net transfers, the author shows that debt accumulates until the credit ceiling is hit. From that point on interest groups are stuck paying high taxes forever to service the debt (Velasco, 2000). The problem may be overcome if the groups try to build a reputation for low spending, but this only happens when debt has increased to a point that the distortionary costs from servicing the debt are deemed sufficiently high (Velasco, 1999).

These models of delayed adjustment imply that the probability of an adjustment at a given point in time decreases with the level of fragmentation, and increases with the degree of political cohesion (decreases with polarization). The reason is that greater fragmentation and polarization imply more distributional conflicts. Another implication is that adjustment is more likely the higher the initial level of debt, as higher indebtedness moves the costs of further delay closer to the critical point where interest groups are not willing to wait any longer.

Similarly, common-pool problems have been used to explain the procyclicality of fiscal policy in less developed economies documented, for instance, by Gavin and Perotti (1997). Tornell and Lane (1998) and Talvi and Vegh (1996, 2005) argue that the additional fiscal resources available during booms generate a more intense fight among the different groups for the common pool of resources (a 'voracity effect'). As a result, government deficits grow in good times. Alesina *et al.* (2008), meanwhile, relate procyclicality to voters' efforts to avoid having the extra revenues generated by the boom be handed out to interest groups fighting for those resources (or appropriated by the government). A central assumption is that there are two fiscal outcomes voters cannot perfectly monitor: the amount of 'rents' captured by the incumbent or the interest groups, and the amount of fiscal resources generated by the boom. When a boom is observed, therefore, voters demand more public spending on productive projects to restrain the incumbent's ability to appropriate any extra resources. Voters' demands create a deficit bias during good times.

The arguments whereby distributional conflicts generate fiscal deficits and delays to undertake adjustments imply that fiscal discipline should be negatively correlated with fragmentation in the design of fiscal policy, defined as the number of groups or agents effectively represented in the process of choosing the budget. The relevant agents or groups depend on the mechanics for putting the budget together, and the stages of the budget process. While at the design stage the relevant agents may be spending ministers or parties represented in the cabinet, at the approval stage they may be parties holding seats (whereby each party is understood as representing a

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more or less homogeneous group). In some countries legislating parties may play an important role even in the design stage, either because they get directly involved (the account in Von Hagen, 2006, suggests this is the case in Japan) or because the government's proposal takes the preferences of legislators into account, foreseeing negotiations with Congress at the approval stage (Hallerberg *et al.*, 2009a).

Related to the above, other empirical implications arise. Political systems that lead to more fragmented governments, such as parliamentary systems, should also be associated with larger budgets (Persson and Tabellini, 2002, 2003). Polarization should have a similar detrimental effect on fiscal outcomes. Fragmentation should also lead to more procyclical fiscal policy, to the extent that distributional conflicts have been suggested as an explanation of procyclical fiscal outcomes.

A large body of empirical evidence has emerged to test some of these implications. One branch of the literature has addressed the relationship between fragmentation, understood as the number of actors that participate in the budgeting process, and fiscal outcomes. Fragmentation in this context has been proxied by the number of number of legislating parties represented in the government coalition or the parliament at large, and by the number of spending ministries (e.g. Kontopoulos and Perotti, 1999, who term these two dimensions 'legislative' and 'executive' fragmentation). A second set of studies has analysed the link between fiscal outcomes and characteristics of the political system that should lead to greater political fragmentation (see Persson and Tabellini, 2003, 2004b, for excellent summaries). In particular, proportional representation systems and parliamentary systems are expected to be related to more fragmentation and greater government spending. Persson and Tabellini (1999) and Milesi-Ferretti *et al.* (2002) present models directly relating the characteristics of the political system to policy outcomes, fiscal policy in particular. The effect of polarization has been given much less attention in the literature (Volkerink and de Haan, 2001; Elgie and McMenamin, 2008, are the exceptions), and this constitutes open ground for future research.[9]

Findings seem to generally confirm that more political cohesion is related to more fiscal discipline. The number of spending ministers in the cabinet is positively related with government spending (Volkerink and De Haan, 2001; Perotti and Kontopoulos, 2002; Mulas-Granados, 2003). A similar positive relationship has been found when fragmentation is measured by the number of legislating parties that participate in the governing coalition (Kontopoulos and Perotti, 1999; Mukherjee, 2003; Mulas-Granados, 2003; Bawn and Rosenbluth, 2006), though the relationship is less robust than for the number of spending ministers (Perotti and Kontopoulos, 2002). Interestingly, it is the number of legislative parties that participate in the governing coalition, rather than the number of parties in the legislature at large that matters, at least for European countries (Bawn and Rosenbluth, 2006).[10]

In terms of the contrast between different political systems, parliamentary systems have been found to lead to more spending than their presidential counterparts (Persson and Tabellini, 2002, 2003, 2004a; Alesina *et al.*, 2006). In turn, proportional electoral systems generate higher spending and higher

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deficits than majoritarian ones (Persson and Tabellini, 2002, 2003, 2004a). This latter relationship also holds for samples than concentrate on developed, mostly parliamentary, economies (Grilli *et al.*, 1991; Milesi-Ferreti *et al.*, 2002) and for samples restricted to Latin American countries, which are mostly presidential (Stein *et al.*, 1999). For Latin America, Stein *et al.* (1999) have also found that systems with greater proportionality (as well as those where the government is weaker vis-a-vis the legislature) are linked to more procyclical fiscal policy.

There are several directions in which this literature can move forward. One issue that deserves further exploration is that of causality. This issue is particularly important for studies relating fragmentation in the legislature or the cabinet to fiscal outcomes. For instance, the number of spending ministers may be a result of previous fiscal outcomes.[11] It may also be explained by the type of government society has chosen: if the social contract mandates large government intervention, then both the number of spending ministers and the size of government spending are likely to be large.[12] Moreover, legislative fragmentation may relate to the choice of electoral system, which has also been shown to be systematically related to fiscal outcomes.

Secondly, the link between fragmentation and fiscal outcomes obviously depends on the mechanics used to put the budget together,[13] which in turn also depends on deeper political and electoral institutions. For instance, whether fragmentation in the cabinet or fragmentation in the legislature matter most and for what is likely to depend on the relative strength of the legislature vis-a-vis the executive, and possibly also on whether the country is a presidential or a parliamentary democracy. Many of these interactions are yet to be explored, partly because studies linking fragmentation and fiscal outcomes tend to concentrate on groups of countries that share similar institutions. Most studies looking at fragmentation and fiscal discipline concentrate on European countries, sharing the feature of being parliamentary democracies. The few studies that have looked at more heterogeneous groups of countries have arrived at conclusions that seem to suggest it is worth exploring the interactions between fragmentation and other institutions in shaping fiscal outcomes. For instance, Mukherjee (2003) and Eslava and Nupia (2010) find evidence that suggests the effects of fragmentation vary between parliamentary and presidential democracies. Budget negotiations between the executive and the legislative are likely very different between these two systems (Persson and Tabellini, 2003).

A third issue to be further explored has to do with the differential impact of fragmentation on spending and deficits. Much of the empirical literature on the common pool problem treats deficits and spending as equivalent. As pointed out by Kontopoulos and Perotti (1999), however, the theoretical support for fragmentation affecting spending is stronger than that supporting a link with deficits. Traditional models of the common pool problem deliver a positive relationship between fragmentation and spending demanded by voters, which translates into a relationship with deficits only under the assumption that revenues are exogenous. Moreover, empirical evidence suggests that the effect of fragmentation on deficits is weaker than that on spending (Kontopoulos and Perotti, 1999; Volkerink and De Haan, 2001), which questions the exogeneity of revenues.

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More recent theoretical contributions (starting with Velasco, 1999, 2000, and most recently Krogstrup and Wyplosz, 2010) have models that link fragmentation to deficits. In these models, groups are assumed to have preferences over net transfers, and directly choose net transfers (rather than spending). By the same mechanism present in the more traditional models of the common pool problem, aggregation of preferences in this model leads to a total level of net transfers – and thus deficits – that is increasing in the number of groups. The strategy of modelling the direct choice of deficits, rather than the choice of spending, and its empirical implications, should be object of further study in the future literature. Several elements suggest the importance of giving further thought to this issue. One, of course, is the mentioned divergence in empirical findings with respect to spending vs. deficits. Another is the fact that the budget process is in general one where the bulk of government revenue is taken as given, so that it is not equivalent to think of spending and deficits. Moreover, the assumption that voters have preferences over net transfers comes in contrast with a tradition in other branches of the literature. For instance, in many models of political budget cycles, voters have well-defined preferences over government expenditure, while taxes affect their utility because they reduce the income they can use for private consumption (Rogoff, 1990; Shi and Svensson, 2006; Drazen and Eslava, 2009). An implication is that preferences over net transfers are not necessarily well defined.

Finally, studying the relationship between the initial level of debt and the probability of undergoing a fiscal adjustment is promising ground for future research. The models reviewed in this section imply that there is a positive relationship, as higher debt imposes higher costs of running deficits in terms of both more distortionary taxation and higher interest payments. This implication has not been directly tested, although some authors have addressed related questions. For instance, there are findings linking current deficits to initial debt (Bohn, 1998; Stein *et al.*, 1999; Mulas-Granados, 2003), while other authors show that, conditional on a fiscal stabilization being under way, the probability that the adjustment is sustained over a long period of time increases with the initial level of debt (Alesina *et al.*, 1998; von Hagen and Strauch, 2001; von Hagen *et al.*, 2002; Gupta *et al.*, 2004). The specific question of whether initial high debt makes it more likely that the government initiates a fiscal stabilization effort is important open ground for research. Evidence that this implication is in fact supported by the data may call into question concerns about the growing levels of debt we observe being unsustainable. In fact, Bohn (1995) shows that fiscal sustainability only requires that a government that starts out with an initial debt must run a primary surplus in some periods and under some states of nature. In this sense, evidence that the primary surplus is increasing in the initial debt (e.g. Bohn, 1998) could be also seen as evidence that governments undertake the necessary corrective measures (i.e. an ‘adjustment’) when debt grows excessively.

5. Budget Institutions

The literature reviewed so far highlights the motivations behind fiscal choices. The way those motivations end up shaping fiscal deficits will depend on the constraints

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policymakers face when deciding on the budget. Some of those constraints relate to the rules that govern the drafting, approval and implementation of the budget. In recent years there has been a surge of research devoted to budget institutions and their effect on fiscal discipline, which we now discuss. It is worth mentioning that this literature largely takes for granted that correlations between budget institutions and fiscal outcomes reflect causality from the former to the latter (with exceptions that will be highlighted below). Reverse causality and simultaneity are possible, as we discuss later.

Budgetary institutions have been defined as the set of rules, procedures and practices according to which budgets are crafted (as in Alesina *et al.*, 1999). Two sets of such rules are generally considered: numerical targets for the budget, and procedural rules (Von Hagen and Harden, 1995). Among the latter, rules referring to the three different stages of the budgetary process (drafting, approval and implementation) need to be considered.[14]

5.1 *Numerical Targets*

Numerical targets for the budget may take different forms, with balanced budget constraints being the most stringent type.[15] The discussion over the optimality of balanced-budget rules is far from settled. If effectively enforced, these rules should certainly lead to more fiscal discipline; since they are set by a unique authority that internalizes the costs to diverging groups in society, their design seeks more fiscal discipline than would arise in their absence. However, they are frequently hard to enforce, as governments can circumvent them through creative accounting practices. Moreover, stringent numerical targets can themselves generate incentives for the use of creative accounting (as shown theoretically by Milesi-Ferretti, 2003). Numerical targets also have effects on the variability of fiscal policy. On the positive side, these rules can reduce undesirable forms of variability in fiscal policy, such as electoral manipulation of government expenditures, and procyclical fiscal policies (Fatás and Mihov, 2003a and 2003b). They can, however, also impede tax smoothing and counter cyclical fiscal activism.

Various authors have studied the effectiveness of alternative numerical targets and other deficit constraints to improve fiscal outcomes in the US states (Von Hagen, 1991; Alt and Lowry, 1994; Poterba, 1994; Bohn and Inman, 1996; Canova and Pappa, 2006). Results suggest that fiscal rules do improve fiscal outcomes when attention is focused on the part of the budget subjected to those constraints (Bayoumi and Eichengreen, 1994; Poterba, 1994; Bohn and Inman, 1996). The evidence, however, is also consistent with the hypothesis that spending cuts elicited by numerical targets reflect substitution to funds not subject to constraints (Von Hagen, 1991; Canova and Pappa, 2006), thus supporting the 'creative accounting' hypothesis (see Bohn and Inman (1996) for a careful discussion of the methodological differences between the studies conducted in the nineties). Moreover, the finding that targets are successful to reduce the spending they rule are shown to depend on the existence of an independent, elected, state supreme court.

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Numerical budget targets have also been used in Europe, in the context of the Maastricht Treaty and European Monetary Union (EMU) rules for member countries. The supranational character of these specific budget rules makes them particularly interesting. Krogstrup and Wyplosz (2010) rationalize supranational fiscal rules in a model where not only various groups within a country benefit from spending financed with common resources, but in addition an agreement with other country makes each of the countries partly responsible for the debt acquired by the other (as in the EMU). A fiscal rule set by a national authority would only address the externality arising from the domestic common pool problem, while a supranational authority would set a rule designed to mitigate both the domestic and the international negative externalities.

Various studies have analysed the effectiveness of the European fiscal rules. Von Hagen (2006) finds that the response to numerical fiscal rules in the EMU context has varied widely across countries. In particular, the rules have been more useful to reduce spending and deficits in the small than in the large countries, and in countries with good budgeting institutions (this latter point is discussed further below). The finding of differential patterns in large vs. small countries could be potentially explained by Von Hagen and Harden's (1995) thesis that informational asymmetries between different spending agencies are more important in larger countries, making targets harder to define and enforce.

Von Hagen and Wolff (2006), in turn, find that the EMU fiscal rules have generated incentives for creative accounting, with governments substituting deficits for stock-flow adjustments in order to comply with requirements to keep deficits under the 3% limit required by the Stability and Growth Pact.[16] It is also worth mentioning that both Von Hagen (2006) and Fatás and Mihov (2003a) find the EMU fiscal rules to have been more effective over the first few years after their adoption, with fiscal outcomes starting to deteriorate by the end of the 1990s. This may signal that governments learn to circumvent the rules after a period subjected to them.

As for countries outside Europe and the USA, Filc and Scartascini (2005) study how an index of fiscal rules for Latin American countries relates to fiscal outcomes. They find that countries with more strict fiscal rules and enforcement mechanisms have lower deficits. Von Hagen (2006) shows little effectiveness of fiscal rules in Japan, and argues this could be the reflection of budgeting procedures that result to be weak given the political context.

The effects of numerical targets on the cyclical properties of fiscal policies, and in turn on macroecoenomic variability, have been studied by Canova and Pappa (2006) and Fatás and Mihov (2006) in the context of the USA. Canova and Pappa find that the second moments of macroeconomic variables do not vary across states in reflection of different fiscal rules. In turn, Fatás and Mihov show that these rules have opposing effects: on the one hand they reduce the use of undesirable discretionary fiscal policy, and on the other they reduce the responsiveness of policy to output shocks (as also shown by Bayoumi and Eichengreen, 1994). The first effect reduces macroeconomic volatility while the second does the opposite; the result found by Canova and Pappa would suggest the two cancel out.

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In summary, numeric targets seem to have limited effectiveness. In particular, they reduce government spending and deficits for the measured part to which the rule is directly applied. In turn, spending tends to be channelled through funds not constrained by the rule, and through stock-flow adjustments. It is also the case that the response to these rules varies widely across countries, apparently in relation to other budgetary institutions (that we discuss further below) and the political context; it is plausible that these differential environments may also change the incentives to engage in creative accounting and the feasibility of doing so. The evidence seems to suggest that effective rules would need to be more comprehensive, in the sense of imposing strict limits not only on deficits but also on debt, and covering the different possible sources for deficits. However, more comprehensive rules are also more complicated rules, and the possibility of enforcing them seems questionable. In that sense, it seems that the use of fiscal rules should be called into question in a more general sense. The current context of extreme fiscal difficulties in a number of EMU member states strongly suggests a revision of this practice; hidden deficits are certainly more dangerous than open deficits, so removing a source of incentives for creative accounting may be worth.

5.2 *Procedural Rules*

The second important set of budgetary institutions, and the one that has been most studied for countries other than the United States, involves the procedural rules that govern the design, voting and implementation of the budget. Alesina and Perotti (1999) and later studies classify such rules on a 'hierarchical' versus 'collegial' scale (or more vs. less centralized, e.g. Von Hagen, 2002). More collegial rules are those that allow more representation of different interests in the budgetary process. The advantage of greater representation is expected to come at the cost of overspending problems that, as discussed in Section 4, emerge in the process of aggregating different interests about the distribution of the budget.

Institutions can be more or less hierarchical at different stages of the budget process. In the drafting of the budget, most studies consider as hierarchical institutions that limit the power of spending ministers and centralize drafting power on the treasury minister. The idea is that each spending minister is interested in specific types of government programs; because of the same common-pool problems already discussed, the 'fight' for resources between spending ministers is likely to lead to overspending. At the voting stage, meanwhile, more hierarchical institutions are those that limit the legislature's abilities to modify the budget size proposed by the government. Similar to restrictions on the role of spending ministers at the drafting stage, these limits are expected to ameliorate the common-pool problem, since legislators represent disperse interests. Finally, at the implementation stage, more hierarchical institutions impose limits on Congress' ability to impose ex-post amendments to the size of the budget and/or allow the government to cut (but not to expand) the budget after it has been approved by Congress.

More hierarchical procedural rules are likely to increase fiscal discipline, but their effectiveness depends on how transparent the budget is. Rules can frequently

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be circumvented by 'creative accounting' (Milesi-Ferretti, 2003), so the ability of the public and Congress to monitor and understand the budget is key to avoiding fiscal excesses. This is clearly linked to our previous discussion on voters' fiscal preferences: while electoral control may restrict the incentives of the government and Congress to run large deficits, this is only possible if the public is able to monitor the budget. Budget transparency is usually measured by a variety of indicators capturing whether the budget is contained in a single document, whether there are independent audits, whether standard accounting practices govern the language used in the presentation of the budget, and whether there are requirements to justify and/or verify ex post the projections upon which the budget is based.

A series of papers, many of them updated and summarized in a recent book by Hallerberg *et al.* (2009b), have studied the effects of procedural rules and transparency on fiscal outcomes for European countries (e.g. Von Hagen, 1992; de Haan and Sturm, 1994; von Hagen and Harden, 1995; de Haan *et al.*, 1999; Hallerberg *et al.*, 2007) Most analyses are based on comprehensive indices of budget institutions based on both survey responses and formal budget rules. The findings suggest that more hierarchical and transparent institutions are indeed conducive to greater fiscal discipline, even after controlling for a number of other political and economic determinants of fiscal policy. Alt and Lassen's (2006) study, which analyses a more comprehensive set of OECD economies, also finds that greater transparency leads to lower deficits and debt. Interestingly, Von Hagen (2006) argues that in the European context strong procedural rules for the budget not only have had direct positive impact on fiscal outcomes, but also influence positively the degree to which numerical targets have been effective.

Similar results have been found for Latin America and the Caribbean. Alesina *et al.* (1999) and Stein *et al.* (1999) study the importance of budget institutions for countries in Latin America and the Caribbean in the 1980s and early 1990s. They construct indices of budgetary institutions that account for the existence of numerical budget targets, the location of procedural rules on a hierarchical–collegial scale, and the abilities of governments to acquire debt through decentralized agencies (intended to capture lack of transparency). Countries with more stringent numerical targets, more hierarchical institutions, and more transparency exhibit higher values on the 'budget institutions index'. The authors then analyse the relationship between government deficits and budget institutions, controlling for a variety of economic indicators. Their findings indicate that countries that rank higher in terms of the index of budget institutions have also lower deficits. Hallerberg *et al.* (2009a), and various country studies in the same volume, also suggest that fiscal institutions contributing to the centralization of the process help fiscal sustainability in Latin America. Findings in Dabla-Norris *et al.* (2010), for a sample of low-income countries, lend further support for an important role of budget institutions to improve fiscal outcomes in developing economies. Further, their results suggest that rules leading to more transparent and comprehensive budgets are even more important than centralized budget procedures.

It is important to note that the nature of budget institutions may be related to the nature of the political system. Hallerberg and von Hagen (1999) for

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instance, argue that more hierarchical budget institutions are more likely to emerge under political systems characterized by less fragmentation, and that the characteristics of the political system affect fiscal outcomes mainly through their effect on budget institutions. In particular, the authors find, using data for Europe, that one-party majority governments frequently delegate the budget process to a strong treasury minister. Hallerberg *et al.* (2007, 2009b) find more generally that highly cohesive governments (coalitions of closely aligned parties in addition to one-party governments) achieve fiscal discipline by delegating budget decisions to the minister of finance, while with disperse coalitions fiscal discipline is achieved through targets. These findings could cast doubt on results suggesting that characteristics of the political system are direct determinants of fiscal performance: these characteristics may be proxying for budget institutions.

Separating the effects of different characteristics of the political system and the budget process on fiscal outcomes is one of the challenges faced by this literature needs. One step in this direction has been taken by Stein *et al.* (1999), who study simultaneously the effect of budget institutions and of the level of fragmentation in Congress on fiscal outcomes in Latin America. Their results indicate that both budget institutions and political fragmentation have an effect on the deficit in the Latin American context, in contrast to what Hallerberg and von Hagen (1999) report for Europe. In turn, Hallerberg and Marier (2004) find that in the Latin American context the personal vote in legislative elections that determines the effectiveness of budget rules. In particular, centralization in the form of strengthening the role of the minister of finance has no effect on fiscal discipline when the personal vote is relatively unimportant (and thus inter-party negotiations are more intense).

More work is still necessary to determine the sources of divergence between results for Europe and Latin America in terms of the relative importance of budget vs. electoral institutions, and in terms of the sources of fragmentation that affect the effectiveness of hierarchical budget institutions. Of particular interest is understanding to what extent this divergence could be explained by the prevalence of parliamentary systems in Europe and presidential systems in Latin America. Budget negotiations between the government and the legislature may be very different between the two systems (Persson and Tabellini, 2003), potentially implying differential effects of budget rules (and other institutions).

More generally, budget institutions may be endogenous. The mentioned work by Hallerberg and co-authors points at one source for the said endogeneity: some budget institutions may only be feasible or effective under certain political environments. But the endogeneity of budget institutions is a much broader issue. First, while most of the literature has focused on the effects of budget rules on fiscal choices, it may well be that budget rules emerge as a result of previous fiscal outcomes. de Haan *et al.* (1999) present evidence suggesting that this has been the case in several European countries. Moreover, fiscal outcomes and budget institutions may both respond to third forces; among them, culture and voters' preferences must be mentioned in addition to the political environment. de Haan and Sturm (1994) present one of the few studies that look at this issue. They examine the effect of budget institutions controlling for voting preferences, and conclude

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that the former matter even in this context. The measurement of culture and voters' preferences, obviously, is not trivial, leaving space for further exploration of this issue. Related, a deeper understanding of the interaction between fiscal rules and features of the political environment in shaping fiscal outcomes is necessary.

6. Overview and Critical Assessment

This paper has reviewed recent literature on the political economy of fiscal deficits. We found three lines of theoretical argumentation about the motivations behind deficits: (1) Deficits arising from the opportunistic motivations of incumbents trying to improve their chances of staying in office; (2) Deficits arising from the partisan preference of incumbents who either run deficits as a direct reflection of their preference for large governments, or run deficits to tie the hands of successors with different fiscal preferences; (3) Deficits that arise as the result of the fight of groups with conflicting interests for a fixed pool of resources. A common theme of this literature is the presence of conflicts of interest: conflicts between politicians of different 'parties', conflicts between the interests of incumbents and public welfare, conflicts between groups within the same society.

One could very briefly summarize this theoretical literature as indicating that a series of political and institutional features are key determinants of the fiscal balance. First, voters tend to be fiscal conservatives, but they frequently face difficulties in monitoring the government's spending and taxing choices; voters' conservatism therefore only translates into fiscal prudence in more transparent systems. In the absence of transparency, incumbents may actually end up generating deficits in an attempt to convince voters that they are competent providers of public goods. Second, the presence of distributive conflicts generates a fight for resources across groups with heterogeneous preferences, which in turn leads to overspending. As a result, systems where the fiscal decision-making process is more centralized and/or political contexts characterized by less fragmentation are conducive to greater discipline. Finally, more polarized systems may lead to larger deficits, either because incumbents perceive a higher risk of being replaced by challengers with very different preferences or because distributional conflicts are more intense.

This survey also reviewed literature that focuses on the importance of budget institutions. According to this literature, fiscal discipline should be enhanced by transparency of the budget, centralization of the budget process, and numerical limits to the deficit. This institutional focus permeates all the other branches of the literature reviewed. Budget institutions affect the ability of voters to monitor fiscal choices, in turn determining the extent to which policymakers can manipulate voters into seeing them as more competent. Sufficiently hierarchical budget institutions may limit the influence of distributional conflicts on fiscal outcomes by limiting the number of groups that actually participate in fiscal decisions. Numerical targets for the deficit may reduce both the incentives and the ability of incumbents to tie the hands of successors or to manipulate elections through fiscal policy. Budget institutions provide the set of technical constraints for the problem of deciding

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fiscal policy, and therefore determine whether the deficit-inducing channels put forward by theory end up deteriorating fiscal outcomes.

We have suggested throughout the text some loose ends the literature has only started to address. Besides the open questions we have already highlighted throughout the survey, there are three particularly important issues to be addressed. These refer to the direction of causality in many of the relationships between measures of political phenomena and fiscal outcomes; the role of the judiciary; and the development of an integrated empirical framework for studying political and institutional determinants of deficits.

One question that permeates all of the reviewed literature relates to the direction of causality. Empirical tests of the hypothesis that incumbents run deficits only when faced with high chances of replacement must address the possibility that the chances of re-election may depend on previous fiscal outcomes. Work on the link between more fragmented political systems and fiscal policy must take into account the possibility that both fragmentation and the size of the government are determined by electoral institutions, culture, and voters' preferences. Studies of the fiscal effects of different budget institutions must address both the possibility of reverse causality and the possibility that budget institutions and fiscal outcomes both depend on other institutions and on voters' preferences.

The role of the judiciary in achieving fiscal discipline is another crucial question. The services the government has to provide are usually written into the law, even the Constitution. The judiciary is one vehicle for individuals to guarantee their access to those services, and in many contexts plays that role without keeping the government's overall budget constraint in mind.[17] Judicial activism is thus likely to affect fiscal discipline, a phenomenon that has received almost no attention in the literature.[18] Here, again, the normative question of the extent to which this source of fiscal indiscipline is desirable should not be ignored.

Finally, despite the common threads running through the different approaches we have reviewed, notably the presence of conflicts of interest, there is little integrated treatment of these approaches. This is no limitation for the theoretical part of the literature; the very nature of economic modelling demands constraining the set of issues a given theory should address. However, the fragmented way in which these different approaches are examined does generate problems for the empirical literature. First, given the likely connections between different features of political systems, results from fragmented tests may be plagued with omission biases. Second, ignoring complementary theoretical approaches in empirical work may lead to misinterpretations of results. For instance, finding that political polarization affects deficits, Sutter (2003) interprets this result as evidence in favour of the strategic deficits approach. The finding, however, is also consistent with predictions of models of the common pool problem: since greater polarization implies greater conflicts, it may lead to greater deficits through this channel. These two interpretations of the same result may have different implications. In the latter, a solution for persistent deficits could be implementing procedures whereby the budget is decided in a centralized manner, rather than through ample negotiations inclusive of all interests in society between various groups. Centralizing fiscal

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choices, however, could lead to even greater deficits if the actual cause behind them is the incumbent's fear of replacement.

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Notes

1. Other strand of the literature refers to direct manipulation of monetary policy by the government with electoral goals. The ability of the government to tilt monetary policy on its favour obviously also depends on the institutional context. We do not delve deeper into this part of the literature since our focus is on political determinants of fiscal deficits. Clark and Hallerberg (2000) and Drazen (2000a) provide good critical summaries of the political monetary cycles literature.
2. Flexible exchange rates and a Central Bank that is not independent also open space for the government to stimulate economic activity, but via monetary policy. Even in this case, though, the government's effectiveness may be eroded by voters anticipating electoral activism.
3. Although Rogoff's and Shi and Svensson's models explain opportunistic deficits only during election times, this class of models can be used to explain opportunistic debt accumulation even outside electoral periods. In Alt and Lassen's model, for instance, manipulation does not depend on the electoral cycle. Whether fiscal manipulation is present at all times, or only around election times, will depend on the specific context, in particular on how far back voters look when deciding who to vote for.
4. Section 5 reviews this literature in detail.
5. In turn, fiscal adjustments tend to be successful (that is, long lasting and effective to improve the health of government finances) when they focus on expenditure cuts, they start in high-debt situations and with a dynamic economy. Some of this literature will be reviewed in Section 4.
6. Studies of the composition of spending across local governments within the same country suggest a shift from current to capital categories or subcategories of spending. This type of evidence has been reported for Colombia (Drazen and Eslava, 2009), India (Khemani, 2004) and México (Gonzalez, 2002). For Canada, Kneebone and McKenzie (2001) find pre-electoral increases in social services, industrial development and health, but no change in aggregate spending. Less strong evidence in the same direction is reported for Portugal by Veiga and Veiga (2007), who finds pre-electoral increases of capital expenditures, but not accompanied by cuts in other categories. There is also cross-country evidence of changes in the composition of spending, though the direction of the change is less clear-cut. While Schuknecht (1994) finds a shift from current to capital categories, the opposite is found by Vergne (2009). Brender and Drazen (2009) report pre-electoral composition changes, without asking which categories are cut or increase. Whether it is current or capital categories of spending that are cut is likely to depend on the degree of visibility of projects recorded under each category, which in turn also depends on the level of government (e.g. infrastructure spending may be more

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likely to produce electoral gains for local governments). Data recording practices, the assignment of spending responsibilities across different levels of government and traditional political practices are all also likely to affect the electoral choice of spending composition. In the models of Drazen and Eslava's (2006, 2009) heterogeneous fiscal preferences across groups of voters are the key determinant of the direction of the electoral change in the composition of spending.

7. One could imagine, for instance, countries in which right-wing governments run lower deficits and are more frequently in power, but more debt is accumulated because the occasional left-wing governments run higher deficits to compensate for frequent low levels of spending adopted by their right-wing counterparts.
8. In fact, the evidence we review in Section 5 shows that budget institutions are crucial determinants of fiscal outcomes, lending further support to this criticism.
9. Another branch of empirical literature related to the implications of the common pool problem for fiscal outcomes studies different budget institutions and their potential for alleviating this problem. The discussion of that line of work is left for the next section.
10. There is also evidence that other forms of 'weak' governments display less fiscal discipline. Part of it is reviewed in Section 5. Related, Roubini and Sachs (1989), using data on industrial (mostly parliamentary) countries, find that coalition governments exhibit less fiscal discipline than others. Their finding was later shown to be driven by minority governments, a particular form of weak government, by Edin and Ohlsson (1991).
11. Administrative reform in Colombia in 2002 is a case to point. Six spending ministries were merged into just three, largely as an attempt to reduce spending.
12. The author thanks an anonymous referee for pointing at these issues.
13. The budget process itself is object of a large body of work, reviewed in the next section.
14. See Von Hagen (2002, 2008) for recent surveys dedicated to this topic. Further, Von Hagen (2006) documents fiscal rules in different countries.
15. Actual numerical target rules differ substantially, even across states within the same country. For the United States, for instance, Poterba (1994, 1996) reports that in 44 states the governor must submit a balanced budget, but only in 37 must the budget enacted by the state legislature also be balanced. Moreover, only 24 states have explicit prohibitions to carry forward deficits from one year to the next, so that in the remaining states there may be some borrowing to finance an unexpected deficit. In some states, the deficit must be eliminated in the following fiscal year.
16. Stock flow adjustments correspond to the difference between deficit and debt accumulation. Such differences arise due to financial operations, or to value adjustments in external assets or debt due to exchange rate volatility. Some financial operations leading to stock flow adjustments, however, can be used to effectively fund public spending without this spending being reflected in official expenditure figures. Von Hagen and Wolff (2006) provide an excellent explanation of different sources for stock flow adjustments and the way in which these can be used to disguise deficits.
17. In Colombia, for instance, over the last decade a multitude of judicial rulings forcing the government to pay for all types of medical interventions has brought the sustainability of both the social protection system and the government finances into question. These judicial rulings have deep roots in the Constitution. In turn, judges (even at the highest Courts) argue the Constitution forces them to guarantee access

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to these services, but not to keep an eye on whether those services can be paid for by the government.

18. As an example, existing indices of the quality of budget institutions do not usually evaluate the scope for judicial activism in determining expenditures.

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