

Electoral Rules, Forms of Government, and Political Budget Cycles in Transition Countries

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Summary: Recent studies have suggested the existence of ‘election-year economics’ in fiscal policy in transition countries. This study asks whether such electoral cycles in aggregate measures (overall expenditures, revenues and balance) and spending composition (broad vs. targeted outlays) differ among countries with different political systems. This question is motivated by a sharp division between majoritarian-presidential systems in Central Asia and Eastern Europe, and proportional-parliamentary systems in the Baltics, Central and Southeastern Europe. Further, in the absence of context-sensitive theories, the paper asks whether observed outcomes in the transition process conform to the theoretical priors developed for conditions in stable democracies. Finally, the paper attempts to normatively establish whether either of the alternative combinations yields more optimal policy outcomes. The results suggest that the differences indeed exist, primarily on the revenue side and in the composition of expenditures. These results differ markedly from those for stable democracies, especially in the case of composition of spending. Normatively, presidentialism yields suboptimal outcomes in comparison to parliamentarianism, likely due to inefficient system of constitutionally intended checks and balances.

Key words: Political budget cycles, Transition countries, Electoral rules, Forms of government, Checks and balances

JEL: D72, D78, E32, E62, P26, P52

1 INTRODUCTION

Recent studies have suggested the existence of “election-year economics” in fiscal policy in transition countries.¹ Introduction of competitive elections has

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¹ The literature on political business cycles in transition is not voluminous. Only a handful of papers take up the topic: Akhmedov and Zhuravskaya (2004) for Russian regions, Case (2001) for income redistribution policies in Albanian municipalities, Verstyuk (2004) for national and regional-level revenues and expenditures in Ukraine, Benecki, Hölscher and Jarmuzek (2006) for Poland, and Hallerberg, da Souza and Clark (2002) for Central and Eastern Europe EU accession countries. Klačnja (2007) examines fiscal policy cycles in a panel of 25 countries and for a subset of countries with competitive elections.

brought about the incentives for policymakers to manipulate fiscal policy instruments in order to increase reelection prospects, much like the practice observed in developed countries (see for example Alesina and Roubini 1997).

What shapes these incentives for electoral fiscal manipulation in transition countries? The political business cycle (PBC) literature has elaborated on the core reasons – opportunism, career concerns, partisan/ideological differences, “ego” rents (see for example Drazen 2000, Ch. 7 for review). Exigencies caused by the transition process may also be an important factor. Pervasive costs of reforms may have increased electoral pressures by dissatisfied voters, alleviation of which may be attempted through electoral policy manipulation. Transitional disequilibria induced pervasive rent-seeking and corruption, “disguising” of which from the voters may be tried through a populist electoral fiscal policy (Klasnja 2007).

Several recent studies (Austin-Smith 2000, Persson, Roland and Tabellini 2000, Lizzeri and Persico 2001, Haggard and McCubbins 2001, Milesi-Ferretti, Perotti and Rostagno 2002, Persson and Tabellini 2003), however, have suggested another channel of influence, of a fundamentally political nature: fiscal outcomes may be structured by broad constitutional choices – and the resulting political institutions. Different *electoral rules* generate different modes of translation of votes into electoral outcomes, yield different levels of sensitivity to changes in marginal votes and/or vote distribution, etc. Similarly, different *forms of government* allow more or less discretion to the executive; provide different levels of centralization of policymaking, collusion of interest, transparency and accountability, etc. All these factors – overlapping with or complementary to those above – will shape fiscal policy incentives, both long-term, and around elections.

There is a sharp split in the distribution of constitutional arrangements across transition countries (see Table 1 in the Appendix). A combination of majoritarian election rules and presidential regimes is predominant in Eastern Europe and Central Asia, whereas proportional systems with parliamentary regimes are mostly found in Central and Southeastern Europe and the Baltics. This division makes the investigation into constitutional impacts on policy cycles in transition compelling, potentially uncovering not just positive but also normative policy tradeoffs stemming from constitutional choices. In other words, the questions are: i) whether there are systematic differences in fiscal policy around elections in transition countries with different electoral rules and forms of government, and ii) if any combination yields better policy outcomes than others. Previous studies have addressed these questions, but not in the context of transition countries. This paper attempts to fill this gap.²

² There may be a problem of inference in this type of broad research question. The non-random choice of constitutional arrangements may give rise to problems of endogeneity and simultaneity.

Moreover, most studies in this orientation have focused on what is here termed the ‘stock’ of fiscal policy, namely, the *persistent* differences in fiscal outcomes across general constitutional groups. This is not surprising: neither constitutions nor preferences reflected in fiscal policy outcomes change frequently.³ Still, only a handful of studies focused on the ‘flow’ itself – the differences in the behavior of fiscal policy around elections (Persson and Tabellini 2003, Saporiti and Streb 2003, Streb, Lema and Torrens 2005).⁴ There may be strong reasons to expect that the factors influencing the longer-run fiscal policy outcomes will also be at work in shaping electoral cycles. Stock outcomes are, after all, a result of repeated instances of elections. Still, flow outcomes may not necessarily follow the stock ones in lockstep. This may particularly be true if these long-run factors – entrenched preferences and constitutional choices – themselves become a subject of change. The institutional impact may then be primarily observed in the flow outcomes, which will be shaping the (new) stocks that are “in the making”.

Transition countries represent a case in point. Many of them have devised constitutional arrangements afresh following the break-up of the Soviet Union and Yugoslavia, and/or comprehensive regime change. Also, pre-transition fiscal preferences and practices likely received significant reshaping amidst the changing economic system and the role of the state within it. The two combined thus yield a natural experiment of the “fresh-paint” impact of constitutional (re)designs on fiscal policymaking around elections. However, transition countries have not been included in the existing studies of flow outcomes (or stock outcomes, for that matter). This study tries to fill this gap as well.

So, do transition countries conform to existing theoretical priors about (stock) impacts of constitutions in democracies on fiscal outcomes around elections? If not, where are the main points of divergence, suggesting what possible culprits? These are also questions motivating this study.

See for example Acemoglu (2005). These problems should be less egregious in the case of ‘flow’ outcomes and following the transitional ‘turn-overs’, as explained in the following paragraphs. Also, the methodology used in the empirical section should be sufficient to address these issues.

³ Another reason is that of statistical nature in conducting empirical verification: fundamental constitutional changes are rare, and so inference about constitutional effects on policy outcomes comes primarily from cross-country variation. However, for estimating ‘flow’ effects, cross-sectional techniques are a suboptimal choice. Yet, panel estimates underutilize time-invariant phenomena, and so the results are indirect and less clearly related to the existing ‘stock’ theory. See Persson and Tabellini (2003) for discussion.

⁴ Other studies, such as Alt and Lassen (2006), Shi and Svensson (2006), or Gonzales (2002), investigate the institutional determinants of observed political business cycles. They focus, however, on what may rather be regarded as institutional consequences of primary constitutional arrangements inspected here.

The paper proceeds as follows. Section 2 gives an overview of relevant theory and empirics informing the comprehensive empirical analysis in this paper. Priors about fiscal outcomes with regards to different electoral rules and forms of governments are discussed. Section 3 outlines the data, variables, and methodology. Section 4 surveys the empirical results, gauging them against theoretical underpinnings in Section 2. Section 5 offers concluding remarks and discussion for future research.

2 THEORY

2.1 Electoral Rules

Generally, a distinction is made between majoritarian and proportional electoral systems, based on the features such as electoral formula, district magnitude, and ballot structure. Electoral formula represents a method in which votes are converted into legislative seats. Broadly, a differentiation is made between winner-takes-all (majority or plurality) rules and proportional representation (PR). District magnitude reflects the number of representatives elected by each constituency size. Smaller districts are typically associated with majoritarian systems, larger and often nation-wide districts are found in proportional systems. Ballot structure determines whether candidates are elected individually or on party lists. Individual ballots are normally used in small districts, and so are more often a characteristic of majoritarian electoral rules, and vice versa for proportional systems.

Why and how do these rules structure fiscal outcomes? Intuitively, politicians do not need to take into account the preferences and interests of all voters, but need primarily to please the subset of voters to win the election. The electoral formula determines this minimal number of votes – and a minimal coalition of voters – needed. Under plurality or majority rules, the percentage of total vote needed is typically smaller than in proportional systems.⁵ Politicians are thus induced to internalize benefits for smaller segments of the population in the provision of public goods and redistribution by means of fiscal outlays (Persson and Tabellini 2003). This has potential ramifications for both the size and the composition of the budget. By inducing politicians to focus more on swing voters, majoritarian systems generate greater electoral competition among voters for fiscal ‘attention’. This brings about lower overall provision of public goods (Persson and Tabellini 1999, Lizzeri and Persico 2001), and a greater preference/demand for geographically or functionally targeted over broad-based fiscal instruments, such as ‘pork-barrel’ spending (Drazen and Eslava 2004), ad

⁵ Under the plurality rule, a party can win with only 25% of the national vote: 50% of votes in 50% of the districts. Under full PR, the party needs 50% of the national vote.

hoc government purchases, wages and local public goods (Milesi-Ferretti, Perotti and Rostagno 2002). Broad-based transfers and assistance programs, on the other hand, benefit larger groups of population and are thus preferred in proportional systems. Further, lower public goods provision and greater ‘targetability’ and competition among voters affect their preferences about taxes. If the fiscal benefits accrue to powerful swing minorities, the majority of voters prefer lower levels of taxation, given its lower marginal utility. This should cause budgets to be smaller in majoritarian systems than in proportional systems, where the benefiting majority prefers higher taxes to finance greater public goods provision and redistribution in their favor (Austen-Smith 2000).

District magnitude has similar effects: larger districts give politicians strong incentives to seek support from broader coalitions in the population, motivating larger and broader fiscal programs. Smaller districts foster attention to pivotal geographical constituencies, inducing greater supply of particularistic benefits.

Ballot structure is argued to have an effect primarily through another channel of influence on fiscal incentives – *attribution* to and *sensitivity* of votes to incumbents’ performance.⁶ Individual ballots create a more direct link to incumbents’ performance, and thus breed stronger incentives for *attributable* performance. Party-list system weakens individual incentives for good performance since it creates a free-rider problem, indirect chains of delegation, monitoring difficulties and more centralized mechanisms of rent-seeking (Persson, Tabellini and Trebbi 2003, Kucinova and Rose-Ackerman 2005). This may cause more wasteful spending and consequent upward pressures on taxation. This, however, may be alleviated by allowing an open-list ballot, whereby voters choose the ordering of the list with which the party stands in the election.⁷

In all, the ‘stock’ priors may be summarized as follows: majoritarian systems should be associated with smaller governments, less waste, lower provision of public goods, and budget composition tilted towards targeted instruments. The opposite goes for proportional systems. Some of these

⁶ The term accountability is deliberately avoided here, despite its common usage in the cited literature. The main reason is the ambiguous theorized effect on the ‘stock’ vs. ‘flow’ outcomes, as is explained in the following paragraphs. Another reason is the focus on transition countries. Strong democratic accountability is more a feature of mature democracies, and is less present in countries undergoing early transition from autocratic rule.

⁷ Another aspect of importance – ignored here – is the party structure, that is, the number, size and orientation of parties in the political system. It is, however, not exogenous to the electoral system. For example, majoritarian systems are more frequently associated with fewer parties and are more likely to produce single-party majority governments, whereas coalition and minority governments are more likely under proportional systems, which typically have a greater number of parties. Kontopoulos and Perotti (1999), for example, then show that coalition governments are more likely to have larger government spending due to common-pool problems in fiscal policy.

predictions have been confirmed empirically for large cross-sections of democracies (see Persson and Tabellini 2003, and review therein). Table 2 gives a cursory and simple non-parametric overview for transition countries. One is certainly tempted to say that priors are generally upheld here as well.⁸

Normatively, this suggests that there is a tradeoff between two broad constitutional choices, neither of which may be delivering superior outcomes. Proportional systems are indeed more representative, but induce more waste, rent opportunities and redistribution in favor of the majority. Public good provision is achieved at the expense of the agency problem (Persson, Roland and Tabellini 1999, Persson, Tabellini and Trebbi 2003). Majoritarian systems under-provide benefits for broad groups and redistribute in favor of minorities, but create less waste and should hold policymakers more strongly accountable.

What would be the predictions for the ‘flow’ outcomes, that is, for the periods immediately before and after elections? If stock priors are a guide, we should expect greater cycles in targeted programs in majoritarian, and in broad transfers in proportional systems. Also, we should perhaps expect taxes and revenues to be cut more strongly in majoritarian systems, to please the preference for lower taxation by the majority of voters. Finally, with respect to attribution and sensitivity, the priors are ambiguous: if incentives for attributable performance are stronger in majoritarian systems, they should display larger variations in spending and taxes around elections. On the other hand, if more difficult attribution and less sensitivity lead to more wasteful spending, proportional systems may exhibit greater cycles in spending and/or overall balance.

Furthermore, an empirical question is whether any one channel dominates over the others, as well as whether their co-influence is consistent with their hypothesized individual impact. Finally, the question is whether the normative tradeoff (public good provision vs. agency problem) holds for the flow outcomes in transition countries.

2.2 Forms of Government

Comparative studies intuitively differentiate between two general constitutional arrangements with respect to the form of government – presidential-

⁸ The temptation needs to be resisted, however. The rest of Table 2 reveals that majoritarian and presidential countries in transition are less economically developed, have a worse record of economic reforms (judging by the average score on the EBRD Transition Indicators) and more closed economies, younger populations and a greater share of agriculture. All of these influence the fiscal outcomes strongly, and might fully explain the observed differences with no causal effects left for the constitutions. A more robust examination of these stock differences is beyond the scope of this study, though.

congressional and parliamentary. Economic and political literature has generally focused on how these two categorized systems compare in two broad aspects: separation of powers, and the so-called separation of purpose (Shugart and Carey 1992, Cox and McCubbins 2001, Persson, Roland and Tabellini 2000).⁹ While the former is a well known vehicle for establishing a conflict of interests among different branches of government, it has been argued to be only a necessary, but not a sufficient condition for the creation of checks and balances. By allocating policymaking rights across different actors with different roles and capacities, the separation of powers should establish veto points and ensure that different interests are served. Still, if the purpose of separate powers is unified, the effective number of vetoes and the representation of different interests may be quite low (Cox and McCubbins 2001).

Why and how do these aspects affect policymaking? It is argued that they together work to establish two key tradeoffs with respect to policy outcomes. The first is between the ability to implement policy change and achieve stability through commitment. Greater separation of powers *and* purpose make it harder to implement policy changes due to a greater number of veto points. This, however, should assure continuity and better ability to commit to established decisions, due to more intense cross-institutional conflict of interests. The second tradeoff is between the private and public-regardedness of the policy outcomes. Generally, the greater the number of vetoes, the more private-regarding will be the policies enacted. Namely, the bargaining takes place among more veto actors, and each is in the position to demand, and possibly receive, targeted policies in exchange for refraining from vetoing (Cox and McCubbins 2001).

These two tradeoffs point to theoretical predictions relevant for this study. The first tradeoff – policy change vs. commitment – informs the expectations about the ‘flow’ outcomes. Regimes with weaker separation of power and purpose should have greater ability for (fiscal) policy change around elections. The second tradeoff establishes priors about the stock and composition of policy outcomes. Weaker conflict of interests should lead to more waste, inefficient spending, and pressures for higher taxation. This in turn may produce bigger governments. Fewer vetoes (higher unity of purpose) should lead to less private-regardedness of fiscal policy, thus possibly leading to higher preference for public goods over targeted redistribution.

⁹ In addition to separation of power, Persson, Roland and Tabellini (2000) and Persson and Tabellini (2003) refer to what they call legislative cohesion, as a propensity of the members of the governing coalition to exhibit disciplined voting on policy issues. This is very similar to the concept of separation of purpose, which is explained further in what follows.

How do two broad regime categories¹⁰ in theory compare on these aspects, and so, what would be the predictions about the respective fiscal outcomes? Presidential systems are characterized by separate (and direct) elections for both the executive (president) and the legislature (congress). In parliamentary systems, the executive (prime minister and its cabinet) is only indirectly formed through the legislature (the parliament). In theory, this should mean that presidential systems are endowed with conditions more auspicious for stronger separation of powers, if the constitutional arrangements are effective. The executive and the legislature are each separately accountable to the voters, and unable to bring the other down (except for constitutionally provided exceptional cases). In parliamentary systems, on the other hand, the executive derives its powers from a coalition in the legislature, the maintenance of which conditions the executive's tenure.

Persson, Roland and Tabellini (2000) argue that in a working democracy, greater separation of powers in presidential systems causes more intense legislative bargaining. This may bring about conditions for greater separation of purpose among the actors with policymaking powers. In presidential regime with a strong congress, robust proposal powers reside with the legislature alongside proactive and/or reactive competences of the president. Within the legislature, different policy dimensions are under the jurisdiction of different committees, and the coalition may change from policy issue to policy issue. Therefore, there may be a strong separation of purpose not just between the executive and the legislature, but within the latter as well. In parliamentary regimes, proposal powers typically reside within the ministries comprising the governing coalition. Given the possibility of no-confidence votes, calling of early elections and blockade or dissolution of the parliament, the need to preserve the coalition may bring about greater cohesion and unity of purpose than in presidential systems (Shugart and Haggard 2001).

In theory, therefore, the priors about fiscal policy outcomes should be the following. Sharper conflict of interests in presidential systems should induce smaller governments, lower waste and taxation, and greater preference for targeted instruments. It should also reduce the likelihood of policy instability and change, and hence potentially the electoral cycles should be smaller, while the composition is tilted towards the provision of local goods.¹¹ And vice versa, fewer vetoes and more stable coalitions in parliamentary regimes should induce more waste and taxation, bigger governments, but also broader programs, in

¹⁰ Intermediate arrangements falling between the two poles are certainly numerous, but are abstracted from here for the sake of brevity and clarity. More details are taken into account in the empirical section, as laid out below.

¹¹ Where cross-institutional conflict of interest is strong, it may be difficult to forge coalitions for creating new spending programs, especially those not benefiting specific veto actors. Baldez and Carey (2001), for example, find evidence on this for Chile.

favor of a majority represented by a governing coalition. Greater unity of purpose should alleviate policy change, and thus perhaps lead to higher electoral cycles, especially in broad programs and consequently aggregate spending.

Similar to electoral rules, there is a normative tradeoff between the two constitutional groups. Presidential systems generate lower provision of public goods and more redistribution to powerful minorities, but should assure greater policy stability and accountability. Parliamentary systems exhibit higher provision of public goods, but are expected to be less successful in dealing with the agency problem and policy volatility. Persson and Tabellini (2003, 2004) find moderate support for this for a cross-section of democracies, and in a panel for the previous four decades.

These predictions are dependent on the assumption of an effective separation that is provided by the constitution. In practice, however, checks and balances may be present only nominally. Cox and McCubbins (2001) stress, and Streb, Lema and Torrens (2005) demonstrate that the actual outcomes depend on the *effective* number of vetoes. Kunicova (2001), and Kucinova and Rose-Ackerman (2005) point out that in most presidential systems, US-style checks and balances are absent, and presidents tend to have extensive legislative and non-legislative powers, often dictating the agenda in the legislature as well. Further, coalitions in the legislature may not be stable, the parliament may cater to fragmented constituencies, the cabinet may be dominated by few ministries, and may dominate the legislature, etc. Inherent degrees of separation of power and purpose are then not existent in reality, and the above predictions may not hold. These and other issues¹² are certainly relevant for the sample of transition countries examined here, as many of them do not have firm democratic institutions that ensure strong separation.

Finally, there is another dimension by which forms of government matter for policy outcomes, similar to the impact of ballot structure presented above. It is the individual vs. collective nature of the executive (Persson and Tabellini 2003). Attribution of and responsiveness to the performance of a policymaker should be stronger where the executive is (more) individualized, as is the case in presidential systems. This may give stronger incentives for policy cyclicality around elections in countries with presidentialism. Conversely, if collective nature of the executive blurs individual accountability and encourages wasteful spending and rents, one may observe greater cyclicality in parliamentary systems. The predictions about the strength of the cycles are therefore ambiguous. All of them are examined in the empirical section, which follows.

¹² Many more factors have influence, such as the extent and nature of presidential powers, whether the legislature is bicameral or unicameral, and if the former, how the relationship between the houses is structured, the vertical organization of units of government such as federalism, if the executive's term in office is fixed or not, if it can seek reelection, and so on. Naturally, integrating some of these factors in the analysis is beyond the scope of this study.

3 VARIABLES, DATA AND EMPIRICAL MODEL

3.1 Variables

Given the theoretical priors, we are interested both in aggregate fiscal variables and in the composition with respect to targetability of fiscal instruments. The variables therefore include total expenditures and revenues and the resulting overall balance on the one hand, and instruments grouped into social transfers and local public goods on the other. Social transfers cover broad items such as social assistance and unemployment insurance that benefit broad groups in the population. Following Milesi-Ferretti, Perotti and Rostagno (2005), local public goods include current purchases of goods and services, capital expenditures, and wages, as instruments that can be targeted to narrower groups, whether social or geographical. All measures are scaled to GDP and expressed as percentages. The data for balance, expenditures and fiscal instruments are taken from EBRD Economic Statistics database,¹³ complemented by IMF staff country reports. The data for central government revenue are taken from the IMF's Government Finance Statistics and IMF staff country reports.

To study the electoral behavior of fiscal policies around elections, we need a variable that will instrumentalize the election dates. In parliamentary systems, elections of the legislature and the executive coincide. In presidential systems the executive is separately elected, and in the sample the legislature is almost never elected in the same year.¹⁴ Since electoral rules are theorized to have an effect primarily through legislative elections, while forms of government through executive elections, in presidential systems both types are used to construct the dummy variables *ELECT* and *POST-ELECT*.¹⁵ In bicameral systems, the electoral rounds for the chambers may not coincide, producing the effectual mid-term elections. They are ignored, however, as we only focus on the lower house, in line with the established practice in this kind of research.¹⁶ Also, a portion of chamber seats may be populated through actual mid-term elections.¹⁷ The theoretical prior, however, is that the incentives created by these

¹³ <http://www.ebrd.com/country/sector/econo/stats/sei.xls>, last accessed February 25, 2008.

¹⁴ Only 9 legislative elections in presidential systems were held in the same year as the executive elections.

¹⁵ A potential problem with this selection is that presidential systems (and given the constitutional split majoritarian systems) are more represented, and the estimates of the cyclicity therein may be biased upwards. Estimations were therefore also performed only on a set of executive elections, and the results were mostly quite similar. Results are available upon request.

¹⁶ Lower houses are by and large constitutionally intended to be representative of the population, whereas upper houses may or may not be primarily guided by this principle. The elections for the two are expected to be influenced accordingly. Also, in parliamentary systems, only the lower house typically has veto powers.

¹⁷ As in the case of the Czech Republic, where one third of the upper chamber (the Senate) is elected every second year. Senators are elected for a six-year term, as opposed to the

elections are weaker than when the executive is elected in addition to the legislature (Persson and Tabellini 2003, Besley and Case 2003).¹⁸ The data on election dates are taken from Armingeon and Careja (2004).¹⁹

Typically, the election dummy would take the value of 1 in the election year, and 0 otherwise. The post-elect dummy would thus have a value of 1 in the year after election. This, however, is a somewhat imprecise measure for elections that take place early in the calendar year, since the bulk of the prospective preelectoral manipulation will occur in the previous year, and of post-electoral manipulation in the election year. To account for this, *ELECT* takes the value of 1 in the year of election if it took place in the month of June or later. Otherwise, previous year is coded 1, to better capture the period of policy manipulation. In all remaining cases it takes the value of 0. Likewise, *POST-ELECT* is actually coded 1 in the election year if the polling took place in the first half of the year. Otherwise, it takes the value of 1 for one-year lags of the election dates, and 0 in all other cases.

If constitutional arrangements shape fiscal policy incentives, they need to be differentiated for empirical examination. The first aspect of electoral rules, the electoral formula, is broadly classified by means of an indicator variable *MAJ*. A country receives the value of 1 for *MAJ* if it predominantly relied on the plurality (or majority) electoral formula in the most recent election to the legislature (lower house). That is, *MAJ* equals 1 if more than half of the legislators were elected in any type of majority rule. Countries where all or the majority of members are elected on a proportional basis receive *MAJ*=0. The majority of countries in the sample combined the two broad categories.²⁰

Section 2.1 outlines two other features by which a distinction is made between majoritarian and proportional systems – ballot structure and district magnitude. Three measures are developed to account for these aspects. First, following in principle Persson, Tabellini and Trebbi (2003), a variable *BALLOT* is created to measure the proportion of legislators in the lower house who are elected on an individual ballot by plurality rule. All members elected via party

representatives in the lower chamber (the Chamber of Deputies) who are elected for a term of four years.

¹⁸ Another reason for excluding them is more practical: since the focus is on both preelectoral and post-electoral policy behavior, including mid-term elections would be too crowding, especially in presidential countries, where executive and legislative elections do not coincide.

¹⁹ While the citation is for 2004 (as suggested by the authors), the dataset has been updated through 2006. See:

http://www.ipw.unibe.ch/content/team/klaus_armingeon/comparative_political_data_sets/index_g er.html

²⁰ Only Belarus, Kyrgyzstan, Uzbekistan, Macedonia and Ukraine until 1998 elections, had pure majoritarian systems. On the other hand, Bulgaria, Croatia, Czech Republic, Estonia, Latvia, Moldova, Poland, Romania, Slovakia and Slovenia relied entirely on the proportional representation regime.

lists or in multi-member constituencies are lumped together and coded as 0, irrespective of whether they are elected on open or closed lists. If all members are elected individually by a plurality rule, a country receives the value of 1. Any combination of the two yields the score in the [0,1] interval.²¹ Second, to differentiate between open and closed list representation, a pair of mutually exclusive dummy variables *OPEN* and *CLOSED* was created, taking the value of 1 if the lists are open/closed and the value of 0 otherwise. The data for these two measures were compiled from Armingeon and Careja (2004), and Beck et al. (2001).

With regards to district magnitude, the basis for the measure is taken from Beck et al. (2001), where it is expressed as a weighted average, with the weight on each district magnitude in a country being the share of legislators running in districts of that size. To create the variable *DISTRICT*, the log of the original measure is taken, because increasing the district magnitude by one representative should have a very different effect on fiscal variables when the initial size is 1 than when it is 50. It is also inverted, so as to be scaled from larger to smaller districts, to make the interpretation consistent with the previous proxy, *BALLOT*. Summary statistics for these two measures can be found in the lower panel of Table 2.

What are the expected signs for electoral rule proxies? Given the theory outlined in 2.1, coefficients on *MAJ=1* should be positive and higher (than for *MAJ=0*) on local public goods, either small or negative for transfers, and negative on revenues. Expectations are ambiguous about aggregate expenditures and balance. The same goes for *DISTRICT*. As for *BALLOT*, coefficients should be negative on transfers and revenues, and positive on local public goods. Expectations are ambiguous about expenditures and balance. Coefficients on *CLOSED* should be higher than on *OPEN*, and opposite from *MAJ=1*. These expectations are summarized in Panel A of Table 3.

With respect to the forms of government, presidential systems (*PRES=1*) are those where the executive is elected directly, is not accountable to the legislature, and has either direct competences or holds ultimate veto power over budget formation and execution. The opposite goes for parliamentary regimes (*PRES=0*), where the executive (conducting fiscal policy) is accountable to the legislature, irrespective of whether or not there is a directly elected president, as in the case of Poland.²² The information on these constitutional details were

²¹ For example, 75 out 131 MPs of the Armenian National Assembly are elected individually by a plurality rule. The remaining 56 deputies are elected by the proportional system by lists from one multi-member constituency, comprising the entire territory of the Republic. The score for Armenia, then, is $75/131=0.57$

²² The division of constitutional arrangements into presidential and parliamentary is certainly not too nuanced. Many constitutions cannot easily be assigned to either of the models. For example, Ukraine (after constitutional reforms of 2006) and Romania could rather be characterized as semi-

obtained from Armingeon and Careja (2004) and Berglund, Ekman and Aarebrot (2004).

Given the theory from section 2.2, coefficients on aggregate spending and balance variables for $PRES=1$ may generally be smaller than for $PRES=0$, negative and stronger for taxes, positive on local public goods variable and either lower or negative on broad transfers (Panel B of Table 3).

However, as noted above, the predictions crucially depend on the *effective* number of vetoes and therefore actual rather than nominal checks and balances. It is thus desirable to interact the $PRES$ indicator with some measure of effective checks and balances. Following in principle Streb, Lema and Torrens (2005), the variable $CHECKS$ is developed to approximate the level of discretion of the executive (over fiscal policy), and thus the actual separation of powers and purpose. Taken from Beck et al. (2001), the measure originally ranges from 1 to 8 in an ascending order of effectiveness. It was chosen because it reflects both the conditions for legislative cohesion (degree of unity of purpose), and the actual competitiveness of the executive election and the level of political accountability (separation of powers). Namely, countries that do not have a competitive process in electing members of the legislature and the executive receive the lowest scores of 1 and 2. The score is incremented for (each chamber of) the legislature being controlled by the opposition, for open list PR, the number and orientation of parties comprising the governing coalition, collusion on economic policymaking, and the interplay between the distribution of seats and the electoral rules in place. The original measure is rescaled to a 0-7 range and divided by 7 in order to vary in the [0,1] interval.

We are interested in the net effect of the effective number of checks and balances, given the conjecture that more veto players limit the ability for policy change (manipulation), and increase the private-regardedness of policy outcomes. It is therefore useful to isolate the discretionary component of the electoral budget cycle by adjusting the original $ELECT$ and $POST-ELECT$ variables (variations of fiscal instruments before and after elections) by effective checks and balances (Streb, Lema and Torrens 2005):

$$DISCRETIONARY\ ELECT = ELECT - ELECT * CHECKS = ELECT(1 - CHECKS).$$

This adjustment implies on one end that if separation of power and purpose are completely absent ($CHECKS=0$), we observe a pure discretionary

presidential, with the former being president-parliamentary and the latter being premier-presidential, depending on who holds the government accountable and who controls its formation (Shugart and Carey 1992). Among parliamentary countries, the precise constitutional mechanisms for holding the executive accountable to the legislature vary considerably. For example, in Hungary, the constructive role of no confidence is in place, meaning that the prime minister, elected by the parliament, can only be removed if its successor is elected simultaneously. Still, these details are foregone due to focus of the study. We are primarily concerned with who controls and executes fiscal policy, the details of which are taken into account in placing countries in either of the categories.

electoral cycle in the policy instrument, which should intuitively be higher than if some checks are in place. On the other end, if the separation of powers and purpose are strong, the policy change is difficult, and we observe the absence of ($CHECKS=1$) or smaller electoral cycles. The prediction for the composition is more ambiguous, but it is suggested that the higher values of checks increase the taste for targeted instruments over broader transfers. Expectations for are presented in Panel B of Table 3. Summary statistics for this measure are shown in the lower panel of Table 2.

It is useful to note that in the period covered by the panel, the two binary classifications – *MAJ* and *PRES* – change seldom, suggesting that broad constitutional arrangements, adopted at the outset of transition, are inert and/or difficult to change.²³ Properly controlling for other factors, we should therefore be confident about their impact on fiscal policy outcomes.

3.2 Control Variables

When explaining the policies by panel estimation, fixed and year effects are always included to account for unobserved variation across countries and time. However, we try to explicitly control for as many relevant economic variables likely to shape fiscal outcomes. Following Brender and Drazen (2005), the vector of control variables includes proxies for the level of development, measured by the natural log of real per capita income, the fiscal pressure emanating from the demographic structure of a country, represented by the ratio of population aged 0-14 and over 60 to population 15-59 years old, and the impact of terms-of-trade shocks, measured as a share of international trade in GDP. Data for trade and per capita income are obtained from the World Bank's World Development Indicators (WDI). Demographic data is from UNICEF's TransMONEE database.²⁴ Since it is of interest to uncover electoral cycles, it is important to have a rich set of controls that capture the policy dynamics itself. Fiscal variables show certain inertia and path dependency, and so a lagged dependent variable is included on the right hand side. Also, following Persson and Tabellini (2003), to control for the fluctuations in fiscal policy induced by the business cycle and/or external shocks, a measure of output gap (*GAP*) is

²³ *PRES* does not vary at all, although some shifting in competences is observed in Croatia, Georgia, Moldova, Romania, Slovakia, and Ukraine. As for *MAJ*, Albania saw slight changes in the electoral regime in 1991, 1992, and again in 1997 and 2001; Macedonia went from a pure plurality to a mixed system in 1998, and under the brokerage of the international community, to a pure proportional system in 2001; Kyrgyzstan amended the electoral code in 1999, going from pure majoritarian system to having 25% of the lower house seats elected by proportional method, before reverting back to it in 2003; Ukraine switched from a pure majoritarian system to a mixed one in 1998; finally, Uzbekistan went from a uni- to a bicameral legislature in 2002. These changes are reflected in *BALLOT* and *DISTRICT*.

²⁴ http://www.unicef-irc.org/databases/transmonee/2007/Tables_TransMONEE.xls, last accessed February 25, 2008.

included: the log difference between the change in real GDP and its country-specific trend, computed using the Hodrick-Prescott filter.²⁵ Following Eslava (2005), a one period lag of general government debt is included to account for fiscal constraint in staging manipulation. Following Abed and Davoodi (2000), the share of agriculture in GDP, as a measure of hard-to-tax sectors, is also accounted for. Finally, privatization revenues are controlled for as a supplementary fiscal injection. Data for debt and privatization revenue are from EBRD, and for agriculture shares from the WDI. Unless noted otherwise, all the covariates are included in all specifications. More details are provided in footnotes to the tables.

3.3 Sample

The data comprises annual observations for 25 post-communist transition countries over the 1990-2006 period, data permitting. Since the dates of independence vary, the panel is inherently unbalanced. Serbia, Montenegro and Turkmenistan were excluded, the former due to problems of analytical consistency, the latter because there was only one instance of executive election in the reference time period. The sample totals 135 elections.

There may be a substantive concern related to the nature of the elections in the sample. The assumption underlying the PBC argument is that the incentive for manipulation stems from uncertainty about reelection prospects. Most studies in the PBC orientation have therefore been performed on countries categorized in some way as democracies, so as to avoid the downward bias in the estimates by including countries where incentives for manipulation are removed or attenuated. However, Klasnja (2007) shows that “electoral year economics” is well present in this full sample of transition countries, and in the aggregate does not differ substantially from the sub-sample of countries with politically competitive elections.

Another reason for maintaining the full sample has to do with the breakdown of institutional arrangements. Table 1 in Appendix shows the distribution of electoral rules and forms of government across transition countries. A combination of proportional representation and parliamentary system is most represented, followed by presidential systems with a majoritarian electoral formula. If a criterion is applied to eliminate countries without competitive elections, proportional-parliamentary regimes become overrepresented.²⁶ This may cause a bias in the estimates, and can aggravate the

²⁵ Data permitting, the filter was applied for 1989-2006 period, so as to minimize the end-points problem. “hprescott” command in STATA was used, with a smoothing parameter of 6.25.

²⁶ Applying the Polity IV-DPI filter from Klasnja (2007), 5 countries are entirely eliminated (Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan), all of which have majoritarian-presidential regimes. The ratio of proportional representation to majoritarian electoral rules, and

general simultaneity problem stemming from the fact that the distribution of constitutional arrangements is not independent of the geographical, economic, social and historical factors not explicitly modeled (Table 2).

3.4 Econometric Specification

In what follows, parameter estimates are reported based on different versions of the following regression equation, built upon Persson and Tabellini (2003):

$$\begin{aligned}
 Y_{i,t} = & \alpha^0 Y_{i,t-1} + \beta X_{i,t} + \gamma^0 GAP_{i,t} + \\
 & \sum_{\substack{i \in MAJ=1 \\ PRES=1}} \{ S_i [(\alpha^1 - \alpha^0) Y_{i,t-1} + (\gamma^1 - \gamma^0) GAP_{i,t}] + \\
 & [(1 - S_{i,t}) \delta^0 + S_{i,t} \delta^1] Elect_{i,t} * [INT] + [(1 - S_{i,t}) \eta^0 + S_{i,t} \eta^1] Elect_{i,t+1} * [INT] \} \\
 & + \mu_i + \lambda_t + u_{i,t}
 \end{aligned}
 \tag{3.1}$$

In the expression, $Y_{i,t}$ denotes a fiscal indicator in country i and year t . $ELECT_{i,t}$ and $ELECT_{i,t+1}$ are the electoral dummy variables indicating the election in year t , and post-electoral period in year $t+1$, as defined in the previous section (*ELECT AND POST-ELECT*). $X_{i,t}$ is the common vector of control variables. The lagged dependent variable $Y_{i,t-1}$ and the shock measure $GAP_{i,t}$ are included based on the rationale laid out above. Country and year fixed effects, μ_i and λ_t , are included alongside the random error term, u_{it} . $S_{i,t}$ represents an indicator denoting different constitutional categories – *MAJ* and *PRES*, *OPEN* and *CLOSED* – therefore taking the value of 1 or 0. *INT*, if included, denotes the continuous measure capturing the finer institutional details – *BALLOT*, *DISTRICT* and *CHECKS* – as explained in the previous section. The main parameters of interest are values of δ and η on the third line of the equation (3.1), which capture the effects of constitutions on fiscal variables, both before and after elections. Interaction terms between both *MAJ* and *PRES*, and *OPEN* and *CLOSED*, and the lagged dependent variable and the shock variable are included. This is important to avoid confounding different general policy dynamics with different cycles in different constitutional groups (Persson and Tabellini 2003). Interactions with *MAJ* and *PRES* are included in every specification; interaction terms with *OPEN* and *CLOSED* are included only when testing for finer details about electoral rules, in order to reduce the impact on degrees of freedom.²⁷

Equation (3.1) is estimated using the fixed effects method. The presence of country specific and year specific intercepts renders the ordinary OLS

parliamentary to presidential governments then becomes 13:7 and 15:5, from 13:12 and 15:10 respectively (Table 1).

²⁷ Alternatively, when estimating the impact of finer details for both electoral rules and forms of government, interaction terms with all binary and continuous constitutional variables (*MAJ*, *PRES*, *OPEN*, *CLOSED*, *BALLOT*, *DISTRICT* AND *CHECKS*) were included where appropriate. The results were largely unchanged, however.

estimator biased, due to the correlation of the random error and the unobserved effects. The fixed effects method eliminates this source of bias by differencing the original equation.²⁸ However, the bias caused by the inclusion of the lagged dependent variable – which makes (3.1) a dynamic panel model – remains. It is of order $1/T$, where T is the length of the panel (Nickell 1981), and arises because the initial condition $Y_{i,0}$ (when $\neq 0$) is correlated with the error term. So, the magnitude of the bias in estimates depends on which sample and fiscal indicator is used. Since the maximum length of the panel is 17 years, and is often shorter, the bias problem may not be negligible. Alternatives used in the literature to avoid this problem are the methods utilizing the instrumental variable (IV) approach. Arellano and Bond (1991) developed a Generalized Method of Moments estimator that treats the model as a system of equations, one for each time period. The equations differ only in their instrument/moment condition sets.²⁹ Judson and Owen (1999) suggest that the GMM estimation as proposed by Arellano and Bond is more robust in the case of $T \leq 20$. Therefore, one-step and two-step variants of this method were also used to estimate each specification. Still, the GMM estimator is said to have poor finite sample properties, and its efficiency suffers when the width of the panel is small relative to the number of instruments (Wooldridge 2002).³⁰ So, only the results from conventional fixed effects estimations are reported.³¹ For both methods, heteroscedasticity robust standard errors were computed.

Another potential econometric problem is that the election dates may not be exogenous (Shi and Svensson 2002). This is less important in presidential

²⁸ There is a concern over the model used to fit the panel data. The alternative is the random-effects (RE) model, which is based on the GLS estimator. The choice between the two is typically made based on the Hausman specification test. However, as argued by Wooldridge (2002), there is little theoretical justification for the use of RE when the underlying sample selection is markedly non-random, as is the case in this study (if we were drawing the countries from the global population, the theoretical justification would have been stronger). In such cases, RE tends to be inconsistent. We therefore opt for the FE estimator.

²⁹ Endogenous variables in first differences are instrumented with suitable lags of their own levels, since it is assumed that past realizations of the regressors are not correlated with the present errors. Strictly exogenous regressors are instrumented in a classical IV fashion.

³⁰ With 5 endogenous regressors (GDP, trade, privatization revenues, debt, and the share of agriculture), and additional interaction terms with constitutional indicators, the GMM computation yields a matrix containing over a 100 instruments. Given that the maximum length of the panel is 425, this is a sizable reduction in the degrees of freedom (as few as 65 in some specifications). Indeed, for the two-step estimator, the moment condition for overidentifying restrictions is by and large violated, suggesting that the bias is non-negligible.

³¹ Results from GMM estimations are largely similar, with additional moment conditions upheld for the one-step estimations, if the Hansen test is used instead of the weakened (by the number of instruments) Sargan test of overidentifying restrictions. Both statistics report tests of whether the instruments, as a group, appear exogenous. For more details, see Roodman (2003). The output is available from the author upon request.

countries, where elections are typically held on a fixed schedule. Of greater concern are parliamentary systems, where election dates are sometimes not constitutionally fixed, but may rather reflect tactical choices of incumbents or government crises. Endogenous election dates may thus be correlated with the economic cycle: incumbent governments calling early elections when the economy is doing well, or government crises leading to new elections when it is doing badly. That may create upward (in the first case) or downward bias (in the second case) in the estimates of electoral cycles, since the policy variables are expressed as percentages of GDP. However, these prospective problems are addressed by the inclusion of the shock variable ($GAP_{i,t}$) among the controls, both alone and interacted with the constitutional indicators. These variables and interaction terms should account for any regime-specific correlation between the dependent variable and the election date induced by the economic cycle.

The next section reports the estimation results. First, electoral cycles are estimated for all countries unconditional of the constitutional arrangements (Table 4). Then, coefficients are reestimated based on the different aspects of electoral rules separately – electoral formulas (majoritarian vs. proportional – Table 5a), nomination and election procedure (open vs. closed lists within proportional representation regimes vs. majoritarian rules – Table 5b), ballot structure (individual candidacies vs. party lists – Table 5c), and district magnitude (Table 5d) – and all lumped together (Table 6). Next, coefficients on election date indicators differ between different forms of government alone (presidential vs. parliamentary systems – Table 7), and finally interacted with effective checks and balances (Table 8).

4 EMPIRICAL RESULTS

4.1 Political Budget Cycles in Transition Countries

It is first necessary to establish whether there are cycles in fiscal policy around elections. Table 4 shows the results when electoral cycles are inspected unconditionally, i.e., irrespective of the constitutional arrangements.

Preelectoral manipulation is pervasive. Balance deteriorates considerably before elections, and is driven mainly by the dynamics on the expenditure side. A drop of 1% of GDP in the year before election is a sizeable effect, considering the mean balance for the whole sample (-4.25%). Revenues appear to fall, although the results are not robust. Postelectoral year is mostly not characterized with measures to offset preelectoral expansion. From the F-test in the last row of the table, matching contraction is clearly ruled out for the overall balance, total expenditures and transfers. Taxes also continue to fall after

elections.³² Therefore, one cannot conclude that in transition countries elections only cause a short-run displacement of fiscal resources. The rest of the analysis will thus look into the behavior of fiscal variables both before and after elections.

4.2 Electoral Rules and Political Budget Cycles

4.2.1 Majoritarian/plurality rule vs. proportional representation

Do the observed cycles differ between countries with different electoral rules? Table 5a presents results when fiscal variables are inspected conditional on the electoral formula. Considerable difference is observable primarily on the revenue side. Taxes are cut only in majoritarian systems, wherein post-election hikes are also absent, unlike under PR. This is broadly in line with the priors outlined above. The pre-post election variation in revenues is also significantly higher (and negative) in majoritarian than in PR systems, as shown by the F test in the last row of the table. On the spending side, overall expenditures seem to be higher under PR, as suggested by theory, although the difference is not statistically significant. It is therefore not surprising that results for overall balance are inconclusive.

What is somewhat surprising however, are the findings for the composition effect. The stock priors predict that if anything, one should observe stronger cycles in broad transfers under PR than under plurality rules, and vice versa for targeted instruments. While for the latter the results are broadly expected, although statistically weak, for the former, they run counter to expectations. Transfers exhibit stronger expansion both before and after elections, and a statistically significant higher overall electoral variation in majoritarian rather than in proportional systems. What is puzzling is that this is not reflected in the aggregate spending measure, which is smaller than under PR (column 2). This suggests that the *MAJ* measure may be picking up the influence of another factor, either constitutional or unobserved. We therefore turn to other aspects of electoral rules.

³² In fact, revenue contraction is stronger in post-election years. In addition, expansion of transfers also continues to be strong following the polling. This is perhaps in part a consequence of the pressures on fiscal variables to accommodate the economic shocks stemming from transitional disequilibria, and may not be related to election calendar. Moreover, many countries in the sample saw a drastic fall in revenue collection in the early stages of transition that was only gradually reversed following the tax reforms and subsiding inflation (see for example Gleich 2003).

4.2.2 *Ballot Structure: Open vs. Closed List PR, and Individual Ballot vs. Party lists*

Panel B of Table 5 compares proportional representation with open-list ballots to that with closed lists (and the two to plurality systems). As predicted by theory, the attribution problem seems to induce more wasteful spending and pressures for higher taxation with closed-list PR rules. Overall balance is significantly worse than under open lists, which is primarily due to larger electoral variation in total expenditures. Also, tax hikes to finance the deteriorating balance after elections and postelectoral transfer spending are higher. Nonetheless, even the closed-list PR rule does not induce a stronger cycle in transfers than under majoritarian rules.

Panel C further underscores the results from the previous two exercises. The signs for overall expenditures, revenues and targeted instruments are all in keeping with the theoretical priors. The coefficient on the latter now becomes statistically significant, suggesting the importance of the channel through which the ballot exerts influence – attribution of results and sensitivity of votes to performance. Namely, the more legislators are elected on an individual ballot, the higher the preference for targeted redistribution. The paradoxical result on the transfers, however, remains. It appears that individual ballots induce both higher targeted and higher broad-based spending programs, but this is again not reflected in the aggregate expenditure measure (column 2). This suggests either that spending is cut in categories other than local public goods and broad-based measures (such as capital expenditures, interest payments, etc.), or that something else may be driving the transfers but is picked up by *MAJ* and *BALLOT* indicators.

4.2.3 *District Magnitude*

Panel D of Table 6 shows the results when cycles are examined conditioned on the district magnitude. Since the variable is logged, taking the exponents of the coefficients gives values closer in magnitude to those from previous tables. District magnitude primarily influences revenue policies. The smaller the size of the district, the higher are the tax cuts around elections. While other coefficients generally have predicted signs, the impact is not statistically significant.

4.2.4 *Electoral Formula, Ballot Structure and District Magnitude*

Any one dimension of electoral rules likely exerts influence in concert with the others, as they are constitutionally related. Therefore, it is worthwhile examining their influence together, as a check on whether the results on their co-influence on fiscal policy outcomes remain in line with the priors and with the results on their individual impact.

We combine the *MAJ*, *BALLOT* and *OPEN/CLOSED* indicators into one composite measure, and include the district magnitude variable alongside. The

composite variable tracks the *BALLOT* for the proportion of legislators elected on individual ballots by plurality rule. However, it also receives the value of 1 if the closed-list system is used, provided that there is a portion of legislators elected on party lists. Also, it receives a score no lower than 0.5 if the country scores 1 on the *MAJ* variable. In other words, a country receives the value of 1 if all the legislators are elected on individual ballot by majority voting, or have more than half of the legislators elected by plurality rule and the remaining legislators through closed-list PR. On the other hand, it receives a score of 0 only if all the legislators are elected on party lists through open-list PR. The values in between are based on the *BALLOT* variable. This means that moving from 0 to 1 indicates a move towards a more majoritarian system, individual ballot structure, and closed-list rule for PR.

Combining all the features together is expected to yield statistically stronger results, as the model captures richer dynamics. This is indeed what we observe in Table 6. More importantly, the signs and magnitudes remain consistent. Relying on closed-list PR and/or predominantly electing legislators on individual ballot aggravates cycles in overall balance, expenditures, and in broad transfers. The nature of the composite measure, however, does not allow us to attribute the effects to particular features. Nevertheless, given the consistency in results, it is likely that individual channels captured in previous panels paint the right picture: closed PR increases preelectoral manipulation in expenditures and balance, individual ballots cause higher variation in local public goods and possibly in broad transfers. The effect on taxes is primarily through district magnitude: taxes are cut more in systems with smaller districts, possibly to satisfy preferences of the majority for lower taxation.

Normatively, therefore, opting for closed-list PR, or for predominantly majoritarian system with small districts yield suboptimal policy outcomes around elections. Smaller cycles and less waste are observed in systems with open lists and a more balanced combination of PR and plurality rule, with districts of larger average size. Majoritarian systems are not associated with greater accountability through fiscal discipline. Proportional systems do not appear to induce greater representativeness through redistribution towards majority than majoritarian regimes.

4.3 Forms of Government

4.3.1 Nominal Checks and Balances

Do cycles differ between transition countries with different forms of governments? Table 7 shows the basic results, when constitutionally implied separation of power and purpose are taken at face value. The most striking result is that for broad transfers. Once again, it defies the priors. Greater separation of

powers should reduce the executive's and the legislators' interest in providing public goods at the national level. Also, greater separation of purpose should ensure a more private-regarding content of policy outcomes. The latter is somewhat reflected in the results: electoral cycles in targeted instruments (column 5) are significantly higher in countries with presidentialism. But they also exhibit significantly higher pre- and postelectoral expansions of broad transfers. The effect is so strong, that we suspect it is responsible for the similar finding under alternative electoral rules, given that most presidential countries at the same time have majoritarian rules (see Table 1).³³ Further, parliamentary regimes tend to have smaller preelectoral tax cuts and show postelectoral hikes, unlike presidential regimes. Performance does not differ significantly for overall balance and expenditures, although the latter expand slightly more strongly in parliamentary systems.

Overall, the cycles seem to be stronger in presidential systems. This may reflect that voters are more sensitive to performance of an individualized executive, inducing presidents to exaggerate fiscal outcomes around elections. However, this still leaves the puzzling compositional effect unexplained. The result may also suggest that vetoes inhibiting cycle-like policy changes are less effective in presidential countries in transition. To test this supposition, we turn to examining *discretionary* cycles in either constitutional group.

4.3.2 *Effective Checks and Balances*

Table 8 shows the results when the procedure explained in section 3.1 is applied. It reveals the discretionary component of the observed cycles, i.e. the size of the cycle given the effective structure of vetoes and checks and balances.

The results are normatively revealing: constitutionally implied checks and balances in presidential transition countries are not functional. Indeed, average discretion is higher in presidential (*CHECKS* are lower, 0.18) than in parliamentary regimes (*CHECKS*=0.38; see Table 2), and this is reflected in policy outcomes. Ineffective vetoes, in combination with greater responsiveness of individualized executive, lead to expansion in both broad transfers and local public goods, whereas this is not the case in parliamentary regimes. Further, while with ineffective checks we observe the appearance of preelectoral tax cuts

³³ Indeed, pairwise correlation coefficient between *MAJ* and *PRES*, or *BALLOT* and *PRES*, is 0.6 and 0.72 respectively, and significant at 1% level. It may be advisable to examine a "four-way constitutional split" (Persson and Tabellini 2003), since there are four countries in the sample that do not have a majoritarian-presidential or proportional-parliamentary systems. In this way, one would avoid the bias that arises if the left-out constitutional feature, for example the form of government, differs across the included feature, say the electoral rule. The problem is that there is only one case of proportional-presidential system – that of Russia, which renders the four-way split statistically untenable. Nevertheless, the calculations were made excluding Russia. The results remained mainly the same for the two predominant constitutional combinations.

even in parliamentary countries, the revenue cycle is much more adverse in presidential systems.

The normative tradeoff between the two groups thus disappears. Presidentialism in transition countries does not deal with the agency problem better, as the theory suggests, since there is more fiscal wastefulness around elections. Ineffectiveness of veto points also makes the overall policy less stable. Responsiveness of voters to individual performance induces presidents to cater for pockets of important minorities. But, the lack of institutional restraints (higher unity of purpose) also allows for populist measures on a national level not only through tax cuts, but also through the expansion of transfers.

5 CONCLUSIONS

This study has attempted to find answers to several relevant questions about fiscal policymaking in transition countries by means of a comprehensive empirical survey. First, upon identifying the fiscal cycles around elections in transition countries (Table 4), it set out to inspect whether there are systematic differences in these cycles between countries with different electoral rules and forms of government. The differences do exist, primarily on the revenue side, and in the composition of expenditures. Taxes are cut and targeted outlays are expanded before elections only in countries with majoritarian rules and presidential governments. Also, revenues are consolidated after elections only in countries with proportional regimes and parliamentary systems. These findings are markedly different from Persson and Tabellini (2003), suggesting that transition has induced outcomes different from democracies examined therein, bringing us to the second substantive question of the paper.

Namely, existing theories have established a number of predictions with regards to fiscal outcomes under these alternative constitutional arrangements. But, they have focused on what have been termed the ‘stock’ outcomes, namely, persistent differences over a longer period of time, stemming from long-standing constitutional arrangements and entrenched fiscal preferences of the populations in such polities. These predictions, however, may be less useful for transition countries, where constitutions and fiscal preferences have undergone changes in the post-Communist period. Focusing on ‘flows’, i.e. outcomes around elections, this paper asked to what extent do empirical results conform to ‘stock’ predictions. The findings are mixed. Priors are generally supported for revenues and targeted instruments. At present, one cannot draw clear conclusions for overall balance and total expenditures. However, predictions are clearly astray for broad transfers, where we find proportional systems to be less proportional and presidential systems to be less redistributive than theorized. This may be caused by a confluence of factors, most prominent of which appears to be the

ineffectiveness of checks and balances in transition countries with presidentialism. This leads us to the third question posed by the article.

Existing theories discussed the normative implications of alternative constitutional designs on fiscal policymaking. In working democracies, a tradeoff obtains, making it difficult to designate one broad set of electoral rules or forms of government better than the other. The paper attempted to examine whether such conclusions are upheld in the case of transition countries. The answer seems to be fairly clear for the choice of the government system, and is in the negative. Constitutionally intended separation of power and purpose is much less effective in presidential countries than in parliamentary ones, resulting in more wastefulness, less accountability, and negative externalities in composition of fiscal outcomes around elections. The tradeoff between presidentialism and parliamentary democracy therefore seems to be removed for countries in transition. Since most presidential countries also predominantly rely on majoritarian rules, conclusions are harder to draw for electoral rules.

Where do we go from here? A number of questions arise. It was beyond this study to examine what potential aspects of the transition process have induced differences from the results obtained for non-transition countries. For example, why are strong cycles in broad transfers registered in majoritarian and presidential systems, contrary to theoretical expectations? If they take place concurrently with expansions in targeted instruments but this is not reflected in overall expenditures, where do the offsetting cuts take place? Further, it would be interesting and useful to examine how – if at all – these flow outcomes are shaping the stock differences between constitutional groups. Moreover, it would be useful to examine what factors caused the breakdown of the normative fiscal tradeoff between presidentialism and parliamentarianism. How to make the checks and balances on (fiscal) policymaking more effective in countries with presidential governments? These and other questions should be addressed theoretically as well as empirically.

REFERENCES

- Acemoglu, D. (2005). ‘Constitutions, Politics and Economics: A Review Essay on Persson and Tabellini’s *The Economic Effects of Constitutions*.’ *Journal of Economic Literature*, 43(4): 1025-1048
- Abed, G. T., and Hamid R. Davoodi (2000). *Corruption, Structural Reforms, and Economic Performance in the Transition Economies*. IMF Working Paper No. 00/132, International Monetary Fund, Washington D.C.
- Akhmedov, A., and Ekaterina Zhurvskaya (2004). ‘Opportunistic Political Cycles: A Test in a Young Democracy Setting.’ *Quarterly Journal of Economics* 119(4): 1301-1338
- Alesina, A., and Nouriel Roubini (1997). *Political Cycles and the Macroeconomy*. Cambridge, MA: MIT Press

- Alt, J.E., and David D. Lassen (2005). The Political Budget Cycle is Where You Can't See It: Transparency and Fiscal Manipulation. EPRU Working Paper Series 05-03, Economic Policy Research Unit, University of Copenhagen
- Arellano, M., and Stephen Bond (1991). "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations." *Review of Economic Studies* 58 (2): 277-297
- Armingeon, K., and Romana Careja (2004). Comparative Data Set for 28 Post-Communist Countries, 1989-2004, Institute of Political Science, University of Berne
- Austen-Smith, D. (2000). "Redistributing under Proportional Representation." *The Journal of Political Economy*, 108(6): 1235-1269
- Baldez, L. and John M. Carey (2001). "Budget Procedure and Fiscal Restraint in Posttransition Chile." In Haggard, S. and Mathew D. McCubbins (2001). *Presidents, Parliaments, and Policy*. Cambridge UK: Cambridge University Press
- Beck, T., George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh (2001). "New Tools in Comparative Political Economy: The Database of Political Institutions." *World Bank Economic Review* 15(1): 165-176
- Benecki, R., Jens Hölscher, and Mariusz Jarmuzek (2006). Fiscal Transparency and Policy Rules in Poland. Studies and Analysis Case 327, Center for Social and Economic Research, Warsaw, May
- Berglund, S., Joakim Ekman and Franck H. Aarebrot (2004). *The Handbook of Political Change in Eastern Europe*. Cheltenham, UK: Edward Elgar
- Besley, T. and Anne Case (2003). "Political Institutions and Policy Choices: Evidence from the United States." *Journal of Economic Literature*, 41(1): 7-73
- Brender, A., and Allen Drazen (2005). "Political Budget Cycles in New versus Established Democracies." *Journal of Monetary Economics* 52(7): 1271-1295
- Case, A. (2001). "Election Goals and Income Distribution: Recent Evidence from Albania." *European Economic Review* 45: 405-423
- Cox, G.W. and Mathew D. McCubbins (2001). "The Institutional Determinants of Economic Outcomes." In Haggard, S. and Mathew D. McCubbins (2001). *Presidents, Parliaments, and Policy*. Cambridge UK: Cambridge University Press
- Drazen, A. (2000). *Political Economy in Macroeconomics*. Princeton, NJ: Princeton University Press
- Drazen, A. and Marcela Eslava (2006). Electoral Manipulation via Voter-Friendly Spending: Theory and Evidence. Manuscript, University of Maryland and Universidad de Los Andes
- Eslava, M. (2005). Political Budget Cycles or Voters as Fiscal Conservatives? Evidence from Columbia. Manuscript, Universidad de Los Andes
- Gleich, H. (2003). Budget Institutions and Fiscal Performance in Central and Eastern European Countries. Working Paper Series 215, European Central Bank
- Gonzales, M. d. I. A. (2002). "Do Changes in Democracy Affect the Political Budget Cycle? Evidence from Mexico." *Review of Developmental Economics* 6(2): 204-224.

- Haggard, S. and Mathew D. McCubbins (2001). *Presidents, Parliaments, and Policy*. Cambridge UK: Cambridge University Press
- Hallerberg, M., Lucio Vinhas de Souza, and William R. Clark (2002). "Political Business Cycles in EU Accession Countries." *European Union Politics* 3(2): 231-250
- Judson, R. A., Ann L. Owen (1999). "Estimating Dynamic Panel Data Models: a Guide for Macroeconomists." *Economics Letters* 65: 9-15
- Klašnja, M. (2007). *Political Budget Cycles in Transition Countries*. Manuscript, American University
- Kontopoulos, Y. and Roberto Perotti (1999). "Government Fragmentation and Fiscal Policy Outcomes: Evidence from the OECD Countries." In Poterba, J. and J. von Hagen (eds.) *Fiscal Institutions and Fiscal Performance*. Chicago: University of Chicago Press, pp. 81-102
- Kunicova, J. (2001). *Are Presidential Systems more Susceptible to Political Corruption?* Manuscript, Yale University
- Kunicova, J. and Susan Rose-Ackerman (2005). "Electoral Rules and Constitutional Structures as Constraints on Corruption." *British Journal of Political Science*, 35: 573-606
- Lizzeri, A. and Nicola Persico (2001). "The Provision of Public Goods Under Alternative Electoral Incentives." *The American Economic Review*, 91(1): 225-239
- Milesi-Ferretti, G.M., Roberto Perotti, and Massimo Rostagno (2002). "Electoral Rules and Public Spending." *The Quarterly Journal of Economics*, 117(2): 609-657
- Nickell, S. (1981). "Biases in Dynamic Models with Fixed Effects." *Econometrica* 49(6): 1417-1426
- Persson, T. and Guido Tabellini (2000). *Political Economics: Explaining Economic Policy*. Cambridge: MIT Press
- Persson, T. and Guido Tabellini (2003). *The Economic Effects of Constitutions*. Cambridge: MIT Press
- Persson, T. and Guido Tabellini (2004). "Constitutional Rules and Fiscal Policy Outcomes." *The American Economic Review*, 94(1): 25-45
- Persson, T., Guido Tabellini, and Francesco Trebbi (2003). "Electoral Rules and Corruption." *Journal of the European Economic Association*, 1(4): 958-989
- Persson, T., Gerard Roland, and Guido Tabellini (1999). "The Size and the Scope of Government: Comparative Politics with Rational Politicians." *European Economic Review*, 91: 225-39
- Persson, T., Gerard Roland, and Guido Tabellini (2000). "Comparative Politics and Public Finance." *The Journal of Political Economy*, 108(6): 1121-1161
- Roodman, D. (2003). "XTABOND2: Stata Module to Extend Xtabond Dynamic Panel Data Estimator." *Statistical Software Components S435901*, Boston College Department of Economics, revised 10 Feb 2008.
- Saporiti, A.D. and Jorge M. Streb (2004). *Separation of Powers and Political Budget Cycles*. Manuscript, University of London and Universidad del CEMA
- Shi, M., and Jakob Svensson (2002). "Political Budget Cycles in Developed and Developing Economies." *Nordic Journal of Political Economy* 29: 67-76

- Shi, M., and Jakob Svensson (2006). "Political Budget Cycles: Do They Differ Across Countries and Why?" *Journal of Public Economics* 90: 1367-1398
- Shugart, M.S. and John M. Carey (1992). *Presidents and Assemblies: Constitutional Design and Electoral Dynamics*. Cambridge UK: Cambridge University Press
- Shugart, M. S. and Stephan Haggard (2001). "Institutions and Public Policy in Presidential Systems." In Haggard, S. and Mathew D. McCubbins (2001). *Presidents, Parliaments, and Policy*. Cambridge UK: Cambridge University Press
- Streb, J.M., Daniel Lema, and Gustavo Torrens (2005). *Discretionary Political Budget Cycles and Separation of Powers*. CEMA Working Papers: Serie Documentos de Trabajo. 286, Universidad del CEMA
- Verstyuk, S. (2004). *Electoral Cycles in Ukraine*. Economics Education and Research Consortium – Russia and CIS, Final Report, February
- Wooldridge, J. (2001). *Econometric Analysis of Cross Section and Panel Data*. Cambridge: MIT Press

APPENDIX

Table 1. Sample Characteristics

Country	Presidential- Majoritarian	Presidential- Proportional	Parliamentary- Majoritarian	Parliamentary- Proportional	Open List Proportional	Closed List Proportional
Albania			x			
Armenia	x					
Azerbaijan	x					
Belarus	x					
Bosnia				x		x
Bulgaria				x		x
Croatia				x		x
Czech Rep.				x	x	
Estonia				x	x	
Georgia	x					
Hungary				x	x	
Kazakhstan	x					
Kyrgyzstan	x					
Latvia				x	x	
Lithuania			x			x
Macedonia			x			x
Moldova				x		
Poland				x	x	
Romania				x		x
Russia		x				x
Slovakia				x	x	
Slovenia				x		x
Tajikistan	x					
Ukraine	x					x
Uzbekistan	x					
Total Maj/PR		12		13		-
Total Pres/Par		10		15		-
Total Open/Closed		-		-	6	9

Note: Classification definitions are provided in Section 3

Table 2. Summary Statistics of Key Variables and Non-Parametric Testing

Variable	Majoritarian	Sd ¹	Proportional	Sd	p(Ha:mean diff=0)	Presidential	Sd	Parliamentary	Sd	p(Ha:mean diff=0)
Balance	-4.883	5.9	-2.582	3.3	0	-3.722	4.5	-3.445	3.8	0.53
Total Expenditure	33.03	11.3	41.659	6.4	0	30.687	10.2	41.412	7.2	0
Total Revenue	23.777	8.1	27.751	9.5	0	22.559	8.9	36.744	8.0	0
Social Transfers	8.398	4.8	13.871	3.6	0	7.046	4.4	13.551	4.0	0
Local Public Goods	17.643	6.3	22.508	7.2	0	15.959	6.9	21.992	6.7	0
Real per capita GDP(log)	6.811	0.9	7.858	0.8	0	6.438	0.7	7.951	0.6	0
Trade/GDP	91.475	29.9	102.635	33.0	0	90.81	29.9	100.888	32.8	0
Population over 60 (%)	13.152	5.2	17.92	2.5	0	12.637	5.1	17.666	3.2	0
Agriculture (% of GDP)	21.286	13.1	11.139	9.4	0	19.485	11.3	13.558	12.4	0
Transition Indicator ²	2.301	0.6	2.747	0.6	0	2.235	0.5	2.787	0.7	0
Ballot Structure ³	0.720	0.2	0.037	0.1	0	0.736	0.2	0.160	0.3	0
District Magnitude (Log) ⁴	3.860	1.4	2.087	1.2	0	3.605	2.0	2.555	1.2	0
Checks and Balances ⁵	0.194	0.2	0.409	0.2	0	0.184	0.2	0.378	0.2	0

Notes: Mean values by constitutional groups; p(Ha:mean diff=0) is the probability of rejecting the null hypothesis that the means across constitutional groups are equal; ¹ Sd = Standard Deviation; ² Average score on the EBRD Transition Indicators, denoting progress in reforms (see: <http://www.ebrd.com/country/sector/econo/stats/timeth.htm>); ³ Proportion of legislators in the lower house who are elected on an individual ballot by plurality rule (see section 3.1); ⁴ Number of representatives elected by each constituency size, weighted (see section 3.1); ⁵ Level of discretion of the executive over fiscal policy (see section 3.1)

Table 3. Expected signs

Panel A: Electoral Rules					
Variable	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
<i>Maj=1</i>	-	+	-	-/0	+
<i>Maj=0</i>	-	+	+	+	-/0
<i>Ballot</i>	?	?	-	-	+
<i>Open</i>	-	-	+>	+	-
<i>Closed</i>	->	+>	+	+>	-
<i>District</i>	?	?	-	-/0	+
Panel B: Forms of Government					
<i>Pres=1</i>	-	+	->	-/0	+
<i>Pres=0</i>	-	+	-	+	-/0
<i>Checks</i>	+	-	+	? (-)	? (+)

Notes: -(+)> negative (positive) and higher than respective opposite category; -(+)/0 negative (positive) or neutral; ? ambiguous priors

Table 4. Unconditional Political Budget Cycles in Transition Countries

	(1)	(2)	(3)	(4)	(5)
Variable	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
Elect	-1.053*** [0.30]	0.819** [0.35]	-0.307 [0.39]	0.630*** [0.20]	0.161 [0.26]
Post-Elect	0.0342 [0.31]	-0.013 [0.35]	-0.538 [0.44]	0.452** [0.20]	-0.128 [0.27]
Observations	263	251	263	234	190
Number of Countries	25	25	25	25	20
Adjusted R-squared	0.43	0.532	0.326	0.515	0.473
F-test	7.989	21.65	13.63	8.126	10.55
Prob>F	0.00	0.00	0.00	0.00	0.00
F: Elect=Post-Elect	4.40**	2.66*	1.5	11.05***	0.03

* significant at 10%; ** significant at 5%; *** significant at 1%

Heteroscedasticity robust standard errors in brackets (absolute values)

Covariates include: log of real per capita GDP, population dependency ratio, international trade (% of GDP), lag of general government debt, privatization revenues (% of GDP), share of agriculture (% of GDP), lag of the dependent variable, alone and interacted with *MAJ* and *PRES*, and the log difference between real GDP and its (country-specific) trend, alone and interacted with *MAJ* and *PRES*. Country and year-fixed effects included.

¹ F-test of the null hypothesis that all country specific effects are equal

Table 5. Electoral Formula, Ballot Structure, District Magnitude, and Political Budget Cycles

Panel A: Electoral Formula: Majoritarian vs. Proportional Rules					
Variable	(1)	(2)	(3)	(4)	(5)
	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
Elect*Majoritarian System	-0.783** [0.39]	0.444 [0.47]	-0.935 [0.67]	0.850*** [0.26]	0.307 [0.40]
Post-Elect*Majoritarian System	-0.164 [0.41]	-0.0902 [0.48]	-1.339* [0.74]	0.719** [0.29]	-0.264 [0.38]
Elect*Proportional System	-1.310*** [0.46]	1.197** [0.49]	0.431 [0.39]	0.349 [0.29]	0.0419 [0.34]
Post-Elect*Proportional System	0.206 [0.46]	0.0987 [0.48]	0.396 [0.42]	0.113 [0.25]	-0.0185 [0.40]
Observations	263	251	263	234	190
Number of Countries	25	25	25	25	20
Adjusted R-squared	0.43	0.531	0.34	0.519	0.469
F-test	7.373	19.8	12.46	7.741	9.824
Prob>F	0.00	0.00	0.00	0.00	0.00
F: Elect*Maj=Elect*(1-Maj)	0.78	1.26	2.96*	1.67	0.26
F: PostElect*Maj=PostElect*(1-Maj)	0.36	0.08	4.00**	2.53	0.20
F: Elect*Maj+PostElect*Maj=Elect*(1-Maj)+PostElect*(1-Maj)	0.03	0.75	5.54**	2.93*	0.01
Panel B: Open/Closed PR vs. Majoritarian/Plurality					
Elect*Closed List PR	-1.950*** [0.56]	1.724** [0.70]	0.103 [0.57]	0.492 [0.31]	-0.131 [0.54]
Post-Elect*Closed List PR	0.257 [0.55]	0.545 [0.65]	1.072* [0.56]	0.555 [0.34]	0.0774 [0.64]
Elect*Open List PR	-0.643 [0.61]	0.552 [0.52]	0.468 [0.56]	0.0744 [0.51]	0.0152 [0.47]
Post-Elect*Open List PR	-0.305 [0.64]	-0.142 [0.57]	0.139 [0.62]	-0.306 [0.38]	-0.265 [0.54]
Elect*Majoritarian System	-0.45 [0.41]	0.238 [0.51]	-0.823 [0.69]	0.797*** [0.27]	0.349 [0.42]
Post-Elect*Majoritarian System	-0.307 [0.43]	-0.0318 [0.54]	-1.298* [0.77]	0.674** [0.29]	-0.212 [0.42]
Observations	262	250	262	233	189
Number of Countries	25	25	25	25	20
Adjusted R-squared	0.45	0.542	0.367	0.532	0.445
F-test	7.144	18.22	9.595	7.655	8.44
Prob>F	0.00	0.00	0.00	0.00	0.00
F: Elect*Closed=Elect*Open	2.77*	1.66	0.2	0.43	0.04
F: PostElect*Closed=PostElect*Open	0.42	0.59	1.25	2.67*	0.14
F: Elect*Closed+PostElect*Closed=Elect*Open+PostElect*Open	0.27	1.48	0.17	1.58	0.02

* significant at 10%; ** significant at 5%; *** significant at 1%

Table 5. Continued

Panel C: Ballot Structure: Individual-Plurality vs. Party-Lists PR					
	(1)	(2)	(3)	(4)	(5)
Variable	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
Elect*Ballot Structure	0.87 [0.82]	-1.239 [0.87]	-1.051 [1.36]	0.912* [0.53]	0.799* [0.31]
Post-Elect*Ballot Structure	-0.49 [0.78]	-0.372 [0.96]	-3.000* [1.58]	0.829 [0.54]	-0.519 [0.78]
Observations	262	250	262	233	189
Number of Countries	25	25	25	25	20
Adjusted R-squared	0.442	0.557	0.382	0.533	0.464
F-test	7.13	23.43	10.92	9.04	8.582
Prob>F	0.00	0.00	0.00	0.00	0.00
Panel D: District Magnitude					
Elect*District Magnitude	0.0501 [0.19]	0.0286 [0.23]	-0.236* [0.12]	-0.0537 [0.15]	0.00318 [0.18]
Post-Elect*District Magnitude	0.0561 [0.21]	-0.21 [0.23]	-0.509*** [0.17]	0.0735 [0.15]	-0.189 [0.19]
Observations	244	234	244	217	181
Number of Countries	24	24	24	24	20
Adjusted R-squared	0.455	0.553	0.561	0.522	0.463
F-test	7.218	20.31	10.57	7.224	7.676
Prob>F	0.00	0.00	0.00	0.00	0.00

* significant at 10%; ** significant at 5%; *** significant at 1%

Heteroscedasticity robust standard errors in brackets (absolute values)

Covariates include: log of real per capita GDP, population dependency ratio, international trade (% of GDP), lag of general government debt, privatization revenues (% of GDP), share of agriculture (% of GDP), lag of the dependent variable, alone and interacted with *MAJ* and *PRES*, and *OPEN* and *CLOSED*, and the log difference between real GDP and its (country-specific) trend, alone and interacted with *MAJ* and *PRES*, *OPEN* and *CLOSED*. Election dates indicators *ELECT* and *POSTELECT* are included but not reported in Panels C and D, and excluded in Panels A and B. Country and year-fixed effects included.

Table 6. Electoral Rules and Political Budget Cycles

Variable	(1)	(2)	(3)	(4)	(5)
	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
Elect*Maj-Ballot-Closed/Open List	-1.822** [0.87]	1.072 [0.89]	-0.519 [0.20]	1.058* [0.48]	0.59 [0.77]
Post-Elect*Maj-Ballot-Closed/Open List	-0.482 [0.84]	0.3 [0.94]	-0.0844 [0.76]	1.395** [0.58]	0.101 [0.85]
Elect*District Magnitude	0.0697 [0.19]	0.0332 [0.24]	-0.234* [0.12]	-0.0747 [0.14]	-0.0111 [0.18]
Post-Elect*District Magnitude	0.101 [0.20]	-0.218 [0.24]	-0.457*** [0.17]	0.0687 [0.14]	-0.13 [0.20]
Observations	244	234	244	217	181
Number of Countries	24	24	24	24	20
Adjusted R-squared	0.468	0.55	0.566	0.555	0.464
F-test	7.763	19.16	9.241	6.522	7.466
Prob>F	0.00	0.00	0.00	0.00	0.00

* significant at 10%; ** significant at 5%; *** significant at 1%

Heteroscedasticity robust standard errors in brackets (absolute values)

Covariates include: log of real per capita GDP, population dependency ratio, international trade (% of GDP), lag of general government debt, privatization revenues (% of GDP), share of agriculture (% of GDP), lag of the dependent variable, alone and interacted with *MAJ* and *PRES*, and *OPEN* and *CLOSED*, and the log difference between real GDP and its (country-specific) trend, alone and interacted with *MAJ* and *PRES*, *OPEN* and *CLOSED*. Election dates indicators *ELECT* and *POSTELECT* are included but not reported. Country and year-fixed effects included.

Table 7. Forms of Government and Political Budget Cycles

Variable	(1)	(2)	(3)	(4)	(5)
	Balance	Total Expenditure	Total Revenue	Social Transfers	Local Public Goods
Elect*Presidential System	-0.948* [0.49]	0.576 [0.56]	-0.471 [0.81]	1.055*** [0.32]	0.769 [0.53]
Post-Elect*Presidential System	-0.0843 [0.49]	0.0254 [0.58]	-1.761* [0.92]	1.129*** [0.38]	-0.375 [0.50]
Elect*Parliamentary System	-1.121*** [0.40]	0.978** [0.44]	-0.111 [0.37]	0.305 [0.23]	-0.0964 [0.30]
Post-Elect*Parliamentary System	0.106 [0.41]	-0.0223 [0.43]	0.293 [0.40]	-0.034 [0.21]	-0.0824 [0.34]
Observations	263	251	263	234	190
Number of Countries	25	25	25	25	20
Adjusted R-squared	0.426	0.529	0.34	0.539	0.477
F-test	7.653	19.77	12.9	8.727	9.696
Prob>F	0.00	0.00	0.00	0.00	0.00
F: Elect*Pres=Elect*(1-Pres)	0.07	0.32	0.16	3.69*	2.67*
F: PostElect*Pres=PostElect*(1-Pres)	0.09	0.01	3.91**	7.20***	0.22
F: Elect*Pres+PostElect*Pres=Elect*(1-Pres)+PostElect*(1-Pres)	0.01	0.09	2.69*	7.94***	0.41

* significant at 10%; ** significant at 5%; *** significant at 1%

Heteroscedasticity robust standard errors in brackets (absolute values)

Covariates include: log of real per capita GDP, population dependency ratio, international trade (% of GDP), lag of general government debt, privatization revenues (% of GDP), share of agriculture (% of GDP), lag of the dependent variable, alone and interacted with *MAJ* and *PRES*, and the log difference between real GDP and its (country-specific) trend, alone and interacted with *MAJ* and *PRES*. Country and year-fixed effects included.

Table 8. Effective Checks and Balances, Forms of Government, and Political Budget Cycles

Variable	(1)	(2)	(3)	(4)	(5)
	Balance	Total Expenditure	Total Revenue	Social Transfers	Public Goods
Elect*Discretionary President	-0.987 [0.60]	1.192* [0.67]	-0.62 [1.11]	1.468*** [0.39]	1.001* [0.60]
Post-Elect*Discretionary President	-0.216 [0.62]	-0.0967 [0.71]	-2.313 [1.43]	1.162** [0.45]	-0.25 [0.57]
Elect*Discretionary Parliament	-1.845*** [0.68]	1.173 [0.71]	-0.348 [0.60]	0.663* [0.35]	-0.572 [0.47]
Post-Elect*Discretionary Parliament	0.37 [0.70]	-0.375 [0.69]	0.778 [0.65]	-0.237 [0.35]	-0.472 [0.53]
Observations	247	237	247	221	177
Number of Countries	24	24	24	24	19
Adjusted R-squared	0.441	0.526	0.352	0.543	0.444
F-test	7.546	26.5	10.98	8.891	8.214
Prob>F	0.00	0.00	0.00	0.00	0.00
F: Elect*PresC=Elect*(1-Pres)C	0.85	0.01	0.05	2.74*	4.59**
F: PostElect*PresC=PostElect*(1-Pres)C	0.41	0.08	3.71**	5.88**	0.07
F: Elect*PresC+PostElect*PresC=Elect*(1-PresC)+PostElect*(1-PresC)	0.04	0.04	2.12	5.96**	2.57*

* significant at 10%; ** significant at 5%; *** significant at 1%

Heteroscedasticity robust standard errors in brackets (absolute values)

Covariates include: log of real per capita GDP, population dependency ratio, international trade (% of GDP), lag of general government debt, privatization revenues (% of GDP), share of agriculture (% of GDP), lag of the dependent variable, alone and interacted with *MAJ* and *PRES*, and the log difference between real GDP and its (country-specific) trend, alone and interacted with *MAJ* and *PRES*. Country and year-fixed effects included.