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political budget cycles

Theoretical and empirical research on political budget cycles is surveyed and discussed. Significant political budget cycles are seen to be primarily a phenomenon of the first elections after the transition to a democratic electoral system.

Political budget cycles are cycles in some component of the government budget induced by the electoral cycle. More specifically, the term most often refers to increases in government spending or the deficit or decreases in taxes (including changes relative to long-term trends) in an election year which are perceived as motivated by the incumbent's desire for re-election for himself or his party. Though political budget cycles may be seen as just one type of political cycle in macroeconomic variables, most research on cycles in economic variables induced by elections now focuses on budget cycles, and it is useful to study such cycles independent of political cycles in economic activity (the political business cycle). The shift in focus is due in part to the lack of strong empirical evidence for the existence of a political business cycle in many countries.

In contrast to the literature on the political business cycle – where development of formal models preceded the bulk of empirical testing – much empirical research on political budget cycles is based not on explicit models but on more conceptual arguments, with sophisticated formal models being developed later to show how the existence of cycles could be consistent with rational voters. In this article, we first review the basic conceptual arguments and then the formal models before considering the empirical research. There are two key empirical questions. The first is whether political budget cycles in fact exist in a large number of countries. Recent evidence, discussed below, suggests that they do not on the aggregate budget level, except for new democracies. The second key question, which underlies the first, is whether manipulation of the budget is an effective tool in gaining votes. Though it is widely believed that deficit spending in an election year in general gains votes for the incumbent, empirical research does not support this view.

Basic conceptual arguments

There are two main (and contradictory) views of pre-electoral fiscal manipulation. One is that politicians may be expected to engage in such manipulation and that empirically it is widespread. A simple argument supporting this view is that voters like low taxes and high government expenditures, and vote for incumbents who provide them. Opportunistic incumbents will therefore use expansionary fiscal policy before elections to increase the probability of re-election.

However, this simple argument is inconsistent with rational, forward-looking voters who are aware of government budget constraints both at a point in time and intertemporally. Since the non-smooth paths of taxes and government expenditures implied by election-year deficits are presumably costly, voters should dislike deficits in general and especially those seen as electorally motivated. They would therefore not reward incumbents who engage in election-year manipulation. Hence, the alternative view is that voters (especially in developed countries) are 'fiscal conservatives' who punish rather than reward fiscal manipulation. Evidence, discussed in greater detail below, suggests that this is the case in developed countries with established democracies.

A second argument is that if voters respond to good economic conditions by being more likely to vote for the incumbent, he will use expansionary fiscal policy to try to manipulate macroeconomic outcomes and provide higher growth. Hence, expansionary fiscal policy will help an incumbent's re-election prospects. However, even if good economic conditions help an incumbent's chances of re-election, it is not clear that fiscal manipulation will be effective – politicians may have very limited ability to successfully manipulate the economy, both because of a lack of technical ability to time the expansion accurately enough to happen just before the elections and because, as discussed above, rational, well-informed voters should not support such policies.

A more sophisticated argument on why rational voters may respond to pre-electoral fiscal expansions is that they have imperfect information about candidates' abilities or about the environment, and that a fiscal expansion signals incumbent ability or some other characteristic which voters value, so that it is effective in gaining votes. This was first formalized in the work of Rogoff, which is summarized below.

An alternative is that, if voters do punish election-year deficits or spending increases (as the data indicate for developed countries), electoral manipulation takes the form of changes in the composition of the budget rather than in its overall level (or the overall deficit). This may take the form of increases in spending that voters as a whole favour at the expense of those types of spending that voters may be believed to like less (or are less visible), or the form of expenditures targeted at some voters at the expense of other voting groups who are seen as electorally less valuable.

Signalling models

The basic competence model

Formal modelling of the signalling role of a pre-election fiscal expansion under asymmetric information was introduced by Rogoff and Sibert (1988) and Rogoff (1990). The models are based on unobserved 'competence', that is, the ability to deliver more public goods for the same level of taxes. Hence, more competent policymakers can generate higher welfare and so are preferred by voters. Competence is correlated over time, so that a candidate who is believed by voters before an election to be more competent than average (the presumed competence of his randomly drawn challenger, who is unable to signal) is expected to be more competent than average after the election as well. Voters therefore rationally prefer a candidate who delivers higher expenditures before an election, since this is a signal of higher competence.

The basic ideas can be represented by a simple version of the model in Rogoff (1990). There is an election at the end of the first period, with the leader who is elected remaining in office thereafter. Voters will choose the leader on the basis of any information they gather in the first period. The utility of the representative voter as of period t may be represented by

$$\Gamma_t = \sum_{s=t}^{T} \beta^{s-t}(g_s + v(k_s)) + \eta_t \tag{1}$$

where g_s is public consumption and k_s is public investment. The function $v(.)$ is assumed to be increasing, concave and satisfying the Inada conditions on its first derivatives as k goes to zero or infinity. The term η_t is a random shock in the election period $t = 1$ such that the outcome is not known *ex ante* to the incumbent setting policy. The voter maximizes the expected value of utility by choosing a candidate in an election at the end of the first period.

The production of public goods is represented as follows. If a leader has an 'administrative ability' or 'competence' ε, he can produce public goods at time t according to:

$$\varepsilon = g_t + k_{t+1} \tag{2}$$

where it is assumed that ε is not directly observable. Investment k must be chosen one period in advance, so that it is not currently observable. Hence, if a voter observes a high value of g_t, he does not know whether this reflects high ability of the policymaker (high ε) or high current public consumption 'bought' at the expense of a cut in some other component of public spending (here, public investment) at some point in the future. This is meant to represent the basic inference problem a voter faces when he observes high government spending before an election – does high observable government expenditure represent fiscal manipulation, in the sense of implying that taxes will be raised or other programmes cut in the future, or does it represent the ability of the leader to provide more goods or services without cutting future goods services?

Potential leaders are assumed to differ in their unobserved ability. Suppose there are two possible levels of ε: ε^H and $\varepsilon^L < \varepsilon^H$, where ability ε_j is expected to persist after the election. Let the prior probability that $\varepsilon = \varepsilon^H$ be $0 < \rho < 1$. The voter's inference problem is to use an observation of g to try to infer the probability that the leader is high-ability, that is, to form a posterior $\hat{\rho}(g)$.

The utility of the incumbent leader is given by:

$$E_t\Gamma_t + \left(\chi + q\sum_{s=t+1}^{T}\beta^{s-t}\chi\right)$$

where χ is the value of holding office and q is the probability of being re-elected at the end of the first period. A key point is that a policymaker's utility depends both on social welfare (the first term) and on his own private payoffs (the second term). If it depended only on social welfare, incumbents would choose the socially optimal fiscal policy and there would be no signalling. If it depended only on private payoffs, low-ability incumbents would mimic whatever high-ability incumbents do and there would only be a pooling equilibrium with no signalling.

At the beginning of period 1, the incumbent observes his ε^j, sets g_1 and k_2 (where k_1 is predetermined). Voters then observe g_1 and f_1 and then vote at the end of the period for either the incumbent or a randomly drawn challenger (who cannot signal his competence, which is average expected competence $\bar{\varepsilon}$ given the prior ρ.) In subsequent periods, the elected policymaker chooses g_t and k_{t+1} to maximize social welfare, given his competence ε. This first-best solution is given by maximizing (1) subject to (2), yielding $k^* = v'^{(-1)}(1/\beta)$ and $g^*(\varepsilon^j) = \varepsilon^j - k^*$. (This would also be the solution in period 1 if voters knew the incumbent's ε.) Since higher-ability incumbents provide more public goods, and thus higher utility, voters prefer a high-ability incumbent to the challenger of expected ability $\bar{\varepsilon}$, but prefer the challenger to a low-ability incumbent.

Under asymmetric information (that is, when the representative voter does not observe the incumbent's ε before voting, or cannot infer it because of imperfect information about the components of the budget), a voter's beliefs about an incumbent's ability are conditioned on his observation of g_1. These beliefs can be summarized as the posterior probability $\hat{\rho}(g_1)$ the voter assigns to the incumbent being of ability ε^H conditional on the value of g_1 observed. Given the voters' rational voting rule, an incumbent has an incentive to appear to be of high ability.

The equilibrium is a separating equilibrium in which the level of spending reveals the incumbent's competence type. A high-ability incumbent will spend just enough so that the low-ability incumbent will not find it optimal to mimic him. (Since a high-ability incumbent can invest $\varepsilon^H - \varepsilon^L$ in k_2 for the same level of g_1, and since politicians care about social welfare, concavity of $v(k)$ implies that the high-ability type can cut back on k at a lower marginal cost to himself than the low-ability type can, the signal of raising g_1 is less costly for him to send.) The low-ability incumbent will choose the first-best solution for his type, namely, $g_1 = g^*(\varepsilon^L) = \varepsilon^L - k^*$. Since this reveals his type he loses the election almost certainly.

If the values of ε^H and ε^L are far enough apart, then the high-ability incumbent can signal his type by choosing his first-best $g^*(\varepsilon^H)$, which the low- ability type won't mimic. However, if ε^H and ε^L are sufficiently close, then a high-ability incumbent can signal his type only by choosing $g_1 > g^*(\varepsilon^H)$. With a continuum of ability types, then each type separates from the type immediately 'below' him by choosing a $g_1 > g^*(\varepsilon^j)$, except for the lowest-ability type who plays his first best. Hence, there is the general result that there will be a fiscal expansion in an election year relative to non-election years, not because voters are naive but because they are sophisticated.

Timing of signals

A question often raised about election-year expansions as a signal of competence (or some other desirable characteristic of a politician) is why the signal should be sent just before an election, rather than earlier in the politician's term. The argument in this sort of model is that information about such characteristics evolves over time, so that there is new information to be signalled in the time period before an election. At the same time the desirable characteristic must have some persistence, so that its pre-electoral value provides information about its post-electoral value. (Formally, Rogoff modelled this by assuming there was an election at the end of every other period, with ability ε assumed to be the sum of the current period and previous period's i.i.d. shock, that is, an AR(1) structure. Therefore, information signaled by g_t in period t before an election was relevant for the post-electoral period $t+1$, but not for the subsequent election at $t+2$. This makes the incumbent's choice problem for choice of g_t fairly simple.)

Observability of fiscal policy

A key ingredient of this type of signalling model focusing on competence is voters' inability to observe the overall level of spending or of the deficit, for otherwise they could perfectly infer his competence. The reliance of this result on voters' lack of information is consistent with Brender and Drazen's (2005a) empirical finding of no statistically significant aggregate deficit or expenditure cycle in established democracies, where voters may be well-informed about fiscal outcomes. Gonzalez (2002) and Shi and Svensson (2002) extend the Rogoff model to study the effect of transparency on the magnitude of fiscal cycles. The basic result is that the higher the degree of transparency, the lower is the amount of distortion away from the first best in the political budget cycle. Shi and Svensson include a similar measure of transparency. Shi and Svensson further argue that, while the proportion of uninformed voters – who may be influenced by fiscal manipulation – is initially large, it is likely to decrease over time, thus decreasing the magnitude of budget cycles. They create a measure of the availability of information and show that as voters become more informed the magnitude of the cycle decreases. A key innovation of Shi and Svensson (2002) is that the policymaker chooses fiscal policy before he knows his competence level, so that all 'types' choose the same level of expansion. That is, the model focuses on moral hazard rather than signalling, as the other models do. An implication is a cycle in the aggregate deficit.

Unobserved politician preferences

The argument that, with high transparency, political cycles in aggregate expenditures or deficits are likely to be weak or non-existent (combined with empirical evidence on the absence of political cycles in budget aggregates in countries where transparency is seen as high) has led to alternative signalling models. If voters are fiscal conservatives, election-year fiscal manipulation may take the form of changes in the composition of the budget with overall spending and deficits held constant. These compositional changes may be either in categories of expenditures or in expenditures or transfers targeted to some voters at the expense of others.

Drazen and Eslava (2005; 2006) argue that, if it is the composition of spending or transfers, rather than their overall level, that is manipulated for electoral purposes, rational voters may be trying to infer something other than (or in addition to) competence from election-year fiscal policy. Voters who are targeted before an election want to know whether they will be similarly favoured after the election. They therefore suggest that a key unobserved characteristic of an incumbent politician is his preferences over groups of voters or types of expenditure. As in the Rogoff competence models, these preferences have some persistence over time, so that a voter who believes that the incumbent favours him before the election rationally expects some similarity in the composition of expenditures after the election as well. A voter thus faces an inference problem – whether receiving high targeted expenditures before the election signals a greater weight of his group in the incumbent's objective function than other voters or non-targeted expenditures, or whether it signals simply how 'swing' his demographic group is, meaning how many votes the incumbent can raise by targeting his group with expenditures. In both papers, Drazen and Eslava show the existence of an equilibrium in which voters rationally respond to election-year expenditures and politicians allocate expenditure on the basis of this behaviour. Politicians increase spending targeted to electorally attractive groups before elections, while they reduce other types of expenditure to satisfy the no-deficit constraint. As mentioned, a key result is that electoral manipulation arises even with fully rational voters. Drazen and Eslava (2006) further show that even when voters know how 'swing' their group is a political cycle may still arise.

There are several key differences between competence as the crucial unobserved characteristic and the approach of Drazen and Eslava, where a politician's preferences are unobserved and spending is targeted to some groups of voters or types of expenditure at the expense of others. First, in the latter approach, manipulation may occur even without affecting the aggregate deficit, consistent with empirical findings discussed below. Second, electoral fiscal manipulation arises even if voters can perfectly monitor the fiscal choices of an incumbent. Finally, political budget cycles in the Drazen and Eslava models arise even if all politicians are equally able to provide public goods.

Empirical studies of political budget cycles

Empirical studies of political budget began with the work of Tufte (1978) for the United States, followed by numerous other empirical studies for both developed and developing countries, as summarized in Drazen (2001). Political budget cycles were widely believed to be strongest for developing countries.

More recently, a number of papers have argued that, while these cycles are stronger in developing countries, they characterize democracies at all levels of economic development, and even non-democracies. Shi and Svensson (2002) find that, in a large panel of both democracies and non-democracies over the period 1975–95, the government deficit rises significantly in an election year in both developing and developed countries. (They show that the effect is far stronger in developing countries, consistent with earlier studies.) The economic effect is significant for the sample as a whole, the fiscal surplus falling on average in their full sample by one half to one per cent in an election year, depending on the estimation method they use. Persson and Tabellini (2003) restrict their sample to a group of 60 democracies from 1960 to 1998. They find a political revenue cycle (government revenues as a percentage of GDP decrease before elections), but no political cycle in expenditures, transfers, or the overall budget balance across countries or political systems. They argue that the electoral system (proportional versus majoritarian) and the governmental system (presidential versus parliamentary) is a key determinant of the nature of the cycle across countries.

However, Brender and Drazen (2005a) argue that the political deficit cycle in democracies is a phenomenon of recently democratized countries, that is, are found to be statistically significant only in the first few elections after a country has made a transition from being a non-democracy to a democracy (which holds true whether or not the formerly socialist economies are included). It is the strong political budget cycle in these countries that accounts for the political budget cycle in larger samples including these countries. Once these countries are removed from the larger sample, the political fiscal cycle disappears. This is true in both developed and developing countries. Hence, the stronger results previously found for developing countries reflect the fact that new democracies comprise a larger fraction of developing than developed country democracies. The 'new democracy' effect also helps explain previous findings of a stronger political cycle in weaker democracies (new democracies are a larger fraction of 'weak' than 'strong' democracies, with no significant cycle found in weak, old democracies.) They also find that helps account for differences in the political cycle across government or electoral systems.

There is also a significant political expenditure cycle in the new democracies, with the very similar positive coefficients on the fiscal deficit and on expenditures in the analogous equations, while there does not appear to be a statistically significant revenue cycle. The deficit cycle in the new democracies thus appears to be driven by higher election-year expenditures.

Brender and Drazen suggest several explanations for their 'new democracy' finding. One is that fiscal manipulation may be used in new democracies because voters are inexperienced with electoral politics or may simply lack the information needed to evaluate fiscal manipulation that is produced in more established democracies. This suggests one way to reconcile the two contradictory views of pre-electoral manipulation. The argument that politicians may be expected to engage in such manipulation may apply to new democracies, where it is possible to carry out such manipulation. The alternative that voters punish fiscal manipulation is applicable to established democracies, where voters have the ability to identify fiscal manipulation and punish such behaviour, so that politicians avoid it.

This is consistent with work by Gonzalez, Shi, and Svensson, discussed above, that focuses on information asymmetries in explaining budget cycles when voters are not naive. It is also consistent with findings by Akhmedov and Zhuravskaya (2004), who find similar evidence in regional elections in Russia after its transition to democracy. Using monthly data between 1996 and 2003, they found sizable but short-lived political budget cycles in local fiscal spending, which became significantly smaller over time and disappeared for most (but not all) fiscal instruments after two rounds of elections. Akhmedov and Zhuravskaya (2004) find similarly that measures of the freedom of the regional media and the transparency of the regional governments were important predictors of the magnitude of the cycle. Alt and Lassen (2006a) find that in OECD countries higher fiscal transparency also lowers the magnitude of the electoral cycle.

The absence of political cycles in budget aggregates in established democracies as a group does not, however, mean there are no electoral effects on fiscal policy. Established democracies appear to be characterized by cycles in the composition of spending rather than cycles in its overall level. Several papers find evidence of electoral composition changes in government spending at the sub-national level, including the United States (Peltzman, 1992), Canada (Kneebone and McKenzie, 2001), Colombia (Drazen and Eslava, 2005), India (Khemani, 2004), and Israel (Brender, 2003). Drazen and Eslava (2005) present a signalling model of composition cycles with rational voters where the unobserved characteristic of politicians is their preferences for different types of expenditure, specifically those types of expenditure that voters as a whole prefer.

A second possible explanation for the new democracy effect follows from the Brender and Drazen (2005b) finding that fiscal balance has no significant effect on the probability of re-election, a surprising finding given the existence of a political budget cycle in new democracies. The authors suggest that these two findings may be reconciled by the possibility that fiscal expansions in election years in new democracies do not represent an attempt to gain voter support for the leader but reflect expenditures incurred in an attempt to consolidate democracy. Democracy is often not ‘consolidated’ in new democracies, that is, it is not accepted unconditionally by all citizens. An election year may be an especially dangerous time for the existence of the democracy itself, and thus may be a time when leaders have to spend money to retain popular support for the democratic regime to prevent its overthrow or subversion and the return to an autocratic system. One might then observe higher expenditures and deficits in an election year, but without fiscal expansion necessarily gaining votes for the incumbent over the challenger.

The effect of deficits on re-election

In contrast to the fairly extensive direct tests of overall macroeconomic performance on election outcomes in the literature on political business cycles, there are few tests of fiscal performance on election outcomes, primarily at the sub-national level. These include Peltzman (1992), Brender (2003), and Drazen and Eslava (2005), who examine the direct effect of fiscal performance on re-election at the state and local levels in a single country (the United States, Israel, and Colombia respectively), and find that voters punish – rather than reward – loose fiscal policies in general, as well as in election years.

The only large cross-country study is by Brender and Drazen (2005b), who look at the effects of fiscal performance on re-election in a sample of 74 democracies (comprising 350 election campaigns) over the period 1960 to 2003. They estimate probit regressions giving the probability of an incumbent's re-election as a function of macroeconomic and fiscal variables. They find no evidence that expansionary fiscal policy helps a leader to get re-elected; in fact, it is likely to reduce the chances of reelection. In developed countries, especially established democracies, deficits lower the probability of re-election, with an effect that is both statistically and economically significant. In developing countries, the effect of deficits on re-election is close to zero and is not statistically significant. While voters in developing countries may be more tolerant of an expanding budget deficit in election years, even in these countries voters do not reward election-year deficits at the polls. Brender and Drazen find no statistically significant difference between the effect of deficits that are created by higher expenditures and of those that are created by lower revenue, although in the developed countries the effect of revenue reductions (as a share of GDP) is somewhat larger.

They also find that in established democracies in developed countries voters punish election-year deficits and deficits over the incumbent's term of office. The effects are quite substantial quantitatively. An increase of one percentage point in the ratio of the central government surplus to GDP over the term can increase the probability of re-election by 3–4.5 percentage points in the developed, established democracies, and an increase of one percentage point in the surplus during an election year increases the probability of reelection by between seven and nine percentage points.

The Brender–Drazen results indicate that controlling for the type of political system (parliamentary versus presidential) or the type of electoral system (majoritarian versus proportional) does not change the effect of the election year deficit and growth, nor does whether elections were held at their scheduled date or early. Similarly, they find no significant effect of the level of democracy on the finding that deficits do not help re-election chances of an incumbent.

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See also

<xref=xyyyyyy> political business cycles.

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Index terms

asymmetric information
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moral hazard
political budget cycles
political expenditure cycles
political revenue cycles
rational voting
separating equilibria
signalling
targeted public spending

Index terms not found:

separating equilibria
targeted public spending