



Political budget cycles and fiscally conservative voters

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HIGHLIGHTS

- I investigate whether the political budget cycle is conditional on voters' fiscal conservatism.
- I make use of data from a referendum to measure voter preferences.
- Spending before elections is only increased if voters prefer loose fiscal policies.
- If voters are fiscally conservative, spending is even decreased before elections.

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ABSTRACT

I test whether the political budget cycle depends on the level of fiscal conservatism among voters. To this end, I use data from a referendum to collect revealed preferences for fiscal conservatism. I find that pre-election spending is increased only if voters have a sufficiently low level of fiscal conservatism. If voters are highly fiscally conservative, incumbents even decrease spending before elections.

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1. Introduction

The political budget cycle (PBC) literature is subject to a seeming paradox. On the one hand, this literature implicitly assumes that voters value high spending before elections. On the other hand, a significant amount of evidence suggests that voters are fiscal conservatives, i.e. they are averse to high government spending and less likely to reelect politicians with increased pre-election spending (Peltzman, 1992; Brender, 2003; Brender and Drazen, 2008; Arvate et al., 2009; Drazen and Eslava, 2010). A part of the literature has circumvented this paradox by suggesting that rather than overall spending, incumbents manipulate the composition of spending before elections (Drazen and Eslava, 2010; Enkelmann and Leibrecht, 2013). Yet, many studies still search for (and sometimes find) PBCs in aggregate spending.

A straightforward explanation for this seeming paradox could be that the strength (and direction) of pre-electoral manipulation of total spending varies with the level of voter's fiscal conservatism. This explanation has so far not been tested, presumably

because a major challenge is to credibly elicit voter preferences for fiscal conservatism. I overcome this challenge by exploiting a statewide referendum on the introduction of a debt brake in the German state of Hesse. Referenda directly measure revealed preferences of voters (Schneider et al., 1981), and are thus superior to the construction of preferences from surveys or constituency characteristics. I find that total spending is significantly increased before elections only when fiscal conservatism of voters is low. When voters are sufficiently fiscally conservative, politicians even significantly decrease spending before elections.

2. Data and empirical approach

Institutional setting: I created a yearly panel dataset covering total expenditures of Hesse's 426 municipalities in the 2006–2014 period.¹ Only two German states –Bavaria and Hesse –held a

¹ The length of the chosen period is subject to an important trade-off: On the one hand, using more periods increases the accuracy of the estimates. On the other, voter preferences evolve over time, although evidence suggests that they do so slowly (Funk and Gathmann, 2013). I have therefore limited the study period to two legislative terms: 2006–2010, and 2011–2014 (for the last year of the second

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referendum on the introduction of a state-level debt brake that will be exploited here to derive revealed preferences for fiscal conservatism. Because election dates for the head of the local public administration (*Bürgermeister*) vary across municipalities in Hesse, but in general do not vary across municipalities in Bavaria, I solely focus on Hesse. That election dates vary across municipalities is necessary to disentangle election effects from pure year effects (Sjahrir et al., 2013). Furthermore, the setting is attractive because election dates are likely exogenous (Garmann, 2016).

Fiscal conservatism: Fiscal conservatives are generally advocating fiscal prudence in government spending and debt. On March 27, 2011, Hesse held a statewide referendum on a state-level debt brake that nicely fits this definition and is thus able to elicit – for each municipality – preferences for fiscal conservatism. Specifically, the debt brake requires the state government to run a cyclically adjusted zero deficit from 2020 onwards. Before the introduction of the debt brake, governments were –in “normal” times –allowed to run deficits that were not higher than investment spending. In times of crisis, this restriction was not binding; these old rules suffered from a lack of clear definitions of “crisis” and “investment spending”, and were therefore often effectively meaningless.

Following the literature on eliciting voter preferences from referenda (Funk and Gathmann, 2013), I measure fiscal conservatism based on the proposition’s approval rate. Specifically, as measure for the fiscal conservatism of municipality i , I use $\text{FiscalConservatism}_i = \frac{\text{Number of yes-votes}_i}{\text{Number of voters}_i}$, i.e. the more voters approved the statewide debt brake in municipality i , the more fiscally conservative its voters are *ceteris paribus*.² Fig. 1 shows that this measure has a large variation across municipalities: The maximum value is higher than 0.87, while the minimum is 0.575.

Referenda are attractive settings to elicit voter preferences. First, compared to **constructing** preferences from surveys (which could be plagued by response biases such as social desirability bias) or constituency characteristics (e.g. vote shares of left- or right-wing parties), preferences in referenda are directly **observed** rather than constructed (Schneider et al., 1981). Moreover, referenda provide real decisions with real consequences, such that voters are likely better informed and more concentrated than in the case of hypothetical survey questions. Likewise, public debates before referenda potentially increase the voters’ information level. Finally, a practical issue in municipality settings is that surveys seldom provide data that cover individuals from all municipalities, whereas this is the case by design in statewide referenda.

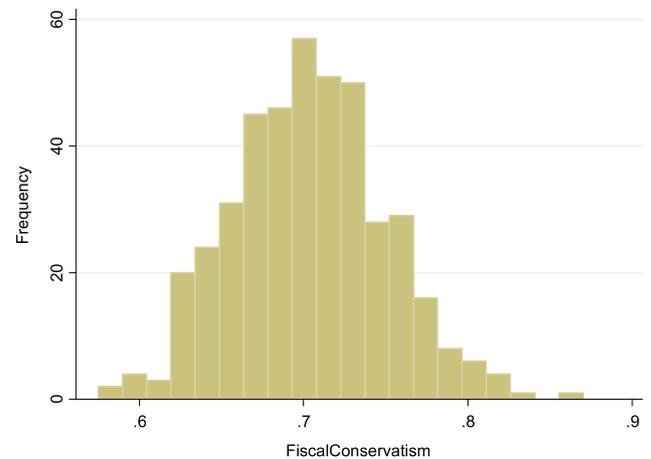
Empirical specification: I estimate the following empirical model:

$$\log(\text{Total per capita expenditures})_{it} = \mu_i + \mu_t + \beta_1 \text{Election}_{it} + \beta_2 \text{Election}_{it} \text{FiscalConservatism}_i + \gamma_1 \text{Pre-Election}_{it} + \gamma_2 \text{Pre-Election}_{it} \text{FiscalConservatism}_i + \delta X_{it} + u_{it} \quad (1)$$

where μ_i and μ_t are municipality- and year-fixed effects, respectively, and the PBC is captured by dummy variables indicating the year before the *Bürgermeister* election (Pre-Election_{it}) and the election year (Election_{it}). The electoral term has a length of six

term, 2015, data were not available at the time of writing). A further issue is that the data cover years before the referendum was held. Thus, it is necessary to assume that politicians were aware of voter preferences even before the referendum, and that choices in the referendum were not caused by municipal fiscal policies. This seems defensible, as the referendum is not concerned with municipal finances, but with state debt.

² The referendum has been held concurrently with local council elections, and, therefore, the turnout at the referendum (48.9%) has been similar to the election’s turnout (47.7%). Similar turnout levels have been observed for other recent local elections in Hesse; the referendum’s turnout has therefore not been low from a comparative perspective.



Mean of fiscal conservatism: 0.7037, Median: 0.7027

Fig. 1. Distribution of fiscal conservatism across municipalities.

years, such that those four years in which a municipality is not in a pre-election or election year serve as the left-out control category. Per capita expenditures (in constant prices) are employed in logarithms, as the distribution is right-skewed. X contains socio-economic and political control variables that are measured at the beginning of each year/legislative term and are, therefore, predetermined with regard to expenditures. Standard errors are clustered at the municipality level.

In line with many contributions to the PBC literature, I also estimate –via system GMM –a variant of (1) that includes lagged dependent variables. Specifically, I employ the two-step estimator and use Windmeijer’s (2005) finite-sample correction of the standard errors. To avoid the problem of instrument proliferation, I limit the instruments to the first two lags of the right-hand side variables.

3. Results

Table 1 shows the results. First, the interaction term in column 1, $\text{Election Year} * \text{FiscalConservatism}$, is negative and significant at the 5% level. Thus, the more prevalent fiscal conservatism is among voters in a municipality, the less will spending be increased before elections; the strength of the PBC varies with the level of fiscal conservatism. In an interaction model such as this, however, also the effect of elections on spending for specific values of the conditioning variable $\text{FiscalConservatism}$ is of interest. Here, I focus on the two extreme cases $\text{FiscalConservatism} = 0$ and $\text{FiscalConservatism} = 1$. When $\text{FiscalConservatism} = 0$, the election year effect is significantly positive. Thus, when voters prefer completely loose fiscal policies, election year spending is increased by more than 26%. On the other hand, when voters are completely fiscally conservative, election year spending is even significantly decreased by almost 11%. If $\text{FiscalConservatism} = 0.7085$ (i.e. approximately at the mean and median value of the conditioning variable), the election year effect is exactly zero. Thus, studies that have not found any effects in aggregate expenditures might have considered contexts in which voters have an average preference for fiscal conservatism.

The results for the pre-election year look similar as for the election year, although the point estimates are smaller and statistically insignificant. Thus, manipulation of expenditures primarily occurs in the election year. Column 2 shows the results of the system GMM

Table 1
Political budget cycles conditional on fiscal conservatism.

Variables	(1) Log(Expenditures)	(2) Log(Expenditures)
	Static model	Dynamic system GMM
Election year Fiscal conservatism = 0	0.2649* (0.1310)	0.2708* (0.1582)
Election year* Fiscal conservatism	−0.3739* (0.1898)	−0.3868* (0.2274)
Election year Fiscal conservatism = 1	−0.1089 (0.0593)	−0.1160 (0.0698)
Pre-election year Fiscal conservatism = 0	0.1321 (0.0947)	0.2209 (0.1350)
Pre-election year* Fiscal conservatism	−0.1749 (0.1350)	−0.3022 (0.1916)
Pre-election year Fiscal conservatism = 1	−0.0428 (0.0410)	−0.0813 (0.0574)
Population size	−0.0000 (0.0000)	0.0000*** (0.0000)
Proportion of old, 65+	0.0171** (0.0078)	0.0151** (0.0071)
Proportion of young, 0–15	0.0254*** (0.0074)	0.0287*** (0.0097)
Proportion of foreigners	−0.0072 (0.0051)	0.0104** (0.0026)
Proportion of females	−0.0093 (0.0094)	0.0041 (0.0135)
Vote share CDU	−0.0355 (0.1130)	−0.1851 (0.1600)
Vote share SPD	−0.1116 (0.1393)	−0.1325 (0.1044)
Vote share FDP	0.0726 (0.2835)	0.1353 (0.3665)
Vote share Greens	0.2322 (0.1405)	−0.0821 (0.1106)
$Log(Expenditures)_{it-1}$		0.3237*** (0.0746)
$Log(Expenditures)_{it-2}$		0.0811*** (0.0262)
Observations		
Number of instruments	3,832	3,828
Number of cross-sections	–	279
AR(1) test p-value	426	426
AR(2) test p-value	–	0.004
Hansen J test p-value	–	0.694
	–	0.196

Right-hand side variables are treated as predetermined in the system GMM model.

* Significant at the 10% level.

** Significant at the 5% level.

*** Significant at the 1% level.

model. The main pattern in the data is confirmed, and the point estimates are almost of the same size as in column 1.³

4. Conclusion

Scholars searching for PBCs in aggregate spending find mixed results. A potential explanation is that fiscally conservative voters do not electorally reward high pre-election spending, and that therefore PBCs can only be found when fiscal conservatism among voters is sufficiently low. I indeed find empirical support for this explanation: Spending before elections increases (decreases) in municipalities with low (high) fiscal conservatism. Thus, the conditional nature of PBCs may be driven by a heterogeneity in the effectiveness of pre-election spending in securing reelection.

The support for PBCs in aggregate spending is most strong in young democracies (Brender and Drazen, 2005) and developing countries (Shi and Svensson, 2006). Interestingly, Brender and

Drazen (2008) find that incumbents are punished for loose fiscal policies in the election year in developed countries, while the pattern for developing countries is less clear. Therefore, future research should investigate whether fiscal conservatism can explain some of the heterogeneity in the results on PBCs with regard to the development level.

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³ I included two lags of the dependent variable to remove second-order autocorrelation. The null hypothesis of no second-order autocorrelation was rejected at the 10% level when only one lag was included. However, even with only one lag, the point estimates were virtually the same.

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