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The impact of late budgets on state government borrowing costs ☆

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ABSTRACT

We analyze how a key component of fiscal governance, the ability of governments to pass a budget on time, affects government bond yield spreads. Based on a sample of 36 US states from 1988 to 1997, and using an original data set on budget enactment dates, we estimate that a 30 day budget delay has a cumulative impact that is equivalent to a one-time increase in the yield spread of around 10 basis points. States with sufficient liquidity incur no costs from late budgets, while unified governments face large penalties from not finishing a budget on time.

1. Introduction

How does fiscal governance, the way a government goes about its fiscal business, affect its borrowing costs? Recent events in a number of EMU member countries have revealed large differences in fiscal governance practices despite a reasonably common set of fiscal institutions, rules and regulations within the EMU. Similarly, the continuing crises in federal and state level government finances in the United States suggest widely different fiscal governance practices emerging from seemingly similar institutional set-ups. Together, these events emphasize that fiscal policy is about much more than fiscal institutions and fiscal policy outcomes; it includes the process of fiscal governing, from fiscal policy formulation over legislative passage to implementation. However, very little is known about whether and how such differences in actual fiscal governance are reflected in financial markets for sovereign debt.

This paper investigates, in the context of US state governments, how one aspect of fiscal governance, namely the ability to pass the state government budget on time, affects financial markets' evaluations of governments' fiscal health. A large literature has investigated both economic and political determinants of differences in government bond yields, including both fiscal institutions and key government budget variables, but there exists to our knowledge no study that goes beyond looking at *formal* fiscal institutions and instead at *actual* governance practices.

Late budgets in US state governments provide an attractive testing ground for such a test for several reasons: First, state government debt is truly sovereign in that "the United States Constitution precludes suits against states to enforce the payments of debts" (English, 1996, 259). Second, while each state has its own constitution and own configuration of fiscal institutions, they are all embedded within a common legal and regulatory system. Third, a comparable measure of state government borrowing costs exists. Fourth, our measure of the ability of governments to pass a budget on time, stressed by Putnam (1993) as a key indicator of good fiscal governance, allows us to construct a replicable, annual measure of this aspect of fiscal governance.

We collect an original data set containing the dates of final passage of the budget, identified using legislative records, newspaper sources and a survey of state budget officers. Our data show that negotiations over the state budget often drag on well beyond the beginning of the

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new fiscal year, which is generally recognized to be the final deadline for timely passage of a budget. In the sample we consider below, consisting of 36 states in the period 1988–1997, 29.7% of state budgets were enacted after the beginning of the new fiscal year, with the average delay equal to 25 days.

Late budgets can affect state borrowing costs through two related channels: a late payment premium on state bonds and by serving as a market signal. Investor concerns about late coupon and principal payments on government bonds can arise as a temporary phenomenon, as states may not have the legal authority to make appropriations, including debt payments, without a budget in place. The possibility of a late budget to be a market signal arises from the fact that bond market participants may not always have perfect information about the true fiscal position of individual state government. Severe budget delays are likely to arise when painful adjustments are needed to secure state solvency. Thus, the inability to pass the budget can provide a strong signal to the market both about the presence of large unresolved fiscal imbalances, and, perhaps most importantly, that the political actors responsible for the budget lack the ability or will to deal with these problems in an appropriate and timely manner.

We measure state borrowing costs by state general-obligation bond yields from the Chubb Insurance Company *Relative Value Survey*, henceforth denoted the Chubb survey, explained in detail below.[1] Our data on late budgets begin in 1988 and the data series on the Chubb Survey, available for 36 state governments, ends in 1997. We estimate the relationship between the number of days without a budget and state borrowing costs using a dynamic panel GMM-model, which explicitly recognizes the strong degree of persistence in our dependent variable, while at the same time controlling for fixed state characteristics and common time shocks. We find that late budgets significantly increase state government bond yields in an economically substantive way. These findings are robust to controlling for a host of other variables identified in the literature, including fiscal institutions, economic conditions and fiscal outcomes.

Moreover, we find that financial markets' reaction to late budgets depends on the state government's financial, economic and political circumstances in ways consistent with both the late payment premium argument and with the more general market signal idea. The yield spread penalty for late budgets is milder when end-of-year balances are high, while dismal economic conditions tend to amplify the effects of late budgets. States with unified governments, where the same party controls the executive and the legislative branches of government, observe dramatically higher yield spreads following late budgets than states with divided government.

The paper proceeds in the following way: The next section describes our data and empirical strategy, while Section 3 presents our empirical results and quantitative assessments. Section 4 concludes.

2. Data

2.1. The Chubb Relative Value Survey

Comparable market data on actual state bond yields are not readily available. Following Bayoumi et al. (1995), Poterba and Rueben (1999), Poterba and Reuben (2001) and Lowry and Alt (2001), we use data on state government bond yield spreads from the Chubb Survey. This survey measures the bond yield for 39 states relative to New Jersey by asking roughly 25 sell-side bond traders to estimate the current yield, measured in basis points, on a hypothetical 20-year general obligation bond, relative to comparable bonds issued by the state of New Jersey.[2] Thus, differences in reported yields should only reflect differences in perceived riskiness of the state's general obligation debt, and not differences in maturity or other bond characteristics (see Poterba and Rueben, 1999; Poterba and Rueben, 2001 for a discussion).

The survey was conducted about every 6 months from July 1973 until January 1998. From 1976 to June 1993, the survey was conducted in June and December, and beginning in January 1994 the survey was done in January and July. Our dependent variable, $Chubb_{i,t}$, is the winter (December/January) Chubb measure, such that $Chubb_{i,t}$ reflects survey answers given *after* the budget negotiations in year t, but *before* next year's budget negotiations commence.[3] For our sample, the mean of the first-differenced version of the Chubb variable is −.99, with a standard deviation of 7.41 and a median of −.70.

2.2. Late budgets

In practice, budget processes vary considerably across US states. This complicates cross-state comparisons of budget timeliness, for investors and scholars alike, as there is no obvious, universal definition of when a budget is late. In this paper, we define budget negotiations to be concluded when the budget is finally enacted, typically by the governor signing the budget.[4] We compare this date to the date when the fiscal year begins and count the difference in days; we call this measure $Days\_late_{i,t}$. Thus, if the budget for the fiscal year that starts in year t is signed into law five days after the end of the previous fiscal year in state i, $Days\_late_{i,t}$ takes the value 5. If the budget is signed into law five days before the end of the previous fiscal year, it takes the value −5. The marginal effect on government yield spreads of using another day to finish the budget is likely to change dramatically once the fiscal year deadline is exceeded. To account for this, we separate $Days\_late_{i,t}$ into two variables: $Days\_late\_negative_{i,t}$, which is equal to $Days\_late_{i,t}$ if $Days\_late_{i,t}$ is negative, and zero otherwise, and the corresponding variable for positive values, $Days\_late\_positive_{i,t}$.

Data for budget enactment dates were collected from three sources: (i) State legislature websites; (ii) archived newspaper articles; and (iii) a survey sent to state budget officers. Some state legislatures' websites have detailed information on the status and histories of all bills enacted in previous legislative sessions, including the budget bill(s). However, most state legislatures' bill tracking tools only cover the most recent legislative sessions, if any. We therefore supplemented with information from archived (mostly state and local) newspaper articles accessed via *Newslibrary.com*.[5] Finally, we also sent a survey to state budget officers asking them to confirm the data we had collected ourselves as well as to provide us with information that we had not been able to find via any of the other sources. Out of the 48 mainland states, 19 responded to our survey. When overlapping, the data they reported were virtually identical to the data we collected ourselves.[6]

[1] A number of previous papers have used the Chubb survey, as it is the only data set that provides comparable bond yields across state governments in the US. Bayoumi et al. (1995) examine in detail the effects of the size of government debt. Poterba and Rueben (1999), Poterba and Reuben (2001) examine the effects of a broad range of fiscal institutions, and Lowry and Alt (2001) examine both the interaction between fiscal institutions and the economy as well as the role of political parties.

[2] States excluded from the Chubb survey are: Arizona, Arkansas, Colorado, Idaho, Indiana, Iowa, Kansas, Nebraska, South Dakota and Wyoming. Since our data set on late budgets does not include Alaska and Hawaii, and since our sample for Montana starts after the end of the Chubb survey, our effective sample consists of a total of 36 states (not counting New Jersey).

[3] That is, until and including 1992, $Chubb_{i,t}$ denotes the answers given for state i in December of year t. From 1993 onwards it denotes the answers given in January of year $t+1$. To the best of our knowledge, the survey was discontinued in 1998.

[4] There are a number of exceptions to this general definition, and, additionally, some states do not pass a single, all-encompassing budget bill and/or allow for in-year supplementary budgets. See Andersen et al. (2012) for details.

[5] *Newslibrary.com* is an online newspaper archive that covers more than 2500 news sources across the United States. We also used *The New York Times* online archive on several occasions to access relevant news articles. In many cases, these newspaper accounts contained additional information helpful in handling uncertain cases. All articles used in constructing the data set are on file with the authors.

[6] The instructions for the survey are available from the authors upon request. The Online Appendix provides details on the coverage and sources of information on late budgets for each state.