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Can fiscal rules constrain the size of government? An analysis of the "crown jewel" of tax and expenditure limitations☆

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ABSTRACT

Fiscal rules attempt to alter budget outcomes by constraining policy makers. They have been one of the primary responses to the recent string of fiscal crises around the globe. We ask if these rules succeed in altering fiscal outcomes by examining what is arguably the most stringent set of fiscal rules in the U.S.—Colorado's Taxpayer Bill of Rights (TABOR). As TABOR attempts to constrain both taxes and expenditures, we develop a novel approach of estimating treatment effects for multiple outcomes simultaneously using the synthetic control methodology of Abadie et al. (2010). Although there will always be a degree of uncertainty over external validity when a policy is enacted in only a single state, our results provide no evidence that TABOR affected the level of taxes or spending in Colorado and are precise enough to rule out large negative effects. Thus, no support is found for the contention that fiscal rules alter budget outcomes. Instead, TABOR appears to have been partly evaded by policy makers and voters despite its stringency and partly nothing more than a ratification of the state's preference over the size of its public sector.

Representative democracies often produce undesired fiscal outcomes such as large and persistent deficits. Such outcomes may reflect structural deficiencies in fiscal institutions. For instance, deficits may arise as a result of the common-pool problem in which the costs of deficits are widely dispersed, but the benefits of deficit-financed spending are highly concentrated. Another example involves asymmetric information between voters and officials. It can be costly for voters to monitor complex budget processes and this may allow officials to spend in excess of voters' preferences.

The chief response to problems of this type has been the introduction of fiscal rules which aim to alter budget outcomes by constraining policy makers. Examples include the budget frameworks adopted by the U.S. Congress (e.g. Gramm-Rudman-Hollings), numerical budget targets and non-partisan budget agencies in the European Union, balanced-budget rules and super-majority requirements in U.S. states and tax and expenditure limitations for both state and local governments in the U.S. These rules have a long history; e.g. national constitutional balanced budget rules date from the late 1800s (Asatryan et al., 2018).[1] In the wake of the recent string of fiscal crises around the globe – the debt crisis in southern Europe, the downgrading of U.S. government debt over deficit concerns, Puerto Rico's inability to pay its debt, and municipal bankruptcies in the U.S. – fiscal rules are likely to take on ever greater importance. Indeed, the E.U. significantly tightened its budget rules under the Fiscal Compact of 2012.

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[1] Asatryan et al. (2018) demonstrate that constitutional balanced budget rules reduce the probability of a sovereign debt crisis and also lower government debt as a share of the economy.

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There are two broad schools of thought concerning fiscal rules (Poterba, 1997). The "public choice" view holds that budget rules are important constraints on political actors and causally alter budget outcomes. In contrast, the "institutional irrelevance" view holds that political actors systematically evade the intent of the rules while adhering to their letter. The rules are therefore seen as nothing more than a "veil" which can be easily pierced by political actors. Finally, there is a third possibility, closely related to the institutional irrelevance view: Budget rules may simply fail to bind. For instance, tax and expenditure limitations may express preference for small government. If elected officials make tax and spending decisions in line with these preferences regardless of whether or not a fiscal rule is in place, then a limit will not *cause* a change in the size of government, but merely *ratify* an existing preference over the size of government.

In this paper we ask if fiscal rules are capable of altering budget outcomes. We focus our attention on tax and expenditure limitations (TELs) – fiscal rules widely applied to both state and local governments in the U.S. These rules attempt to address the principal-agent problem between voters and elected officials over the proper size of government.[2]

Poterba and von Hagen (1999) note that empirical investigations of fiscal rules typically suffer from an important methodological tension. On the one hand, econometric based studies can offer sound statistical properties, but rarely account for the institutional richness of fiscal rules. On the other hand, case studies allow for considerable nuance but "defy statistical analysis." In this paper we bridge these two approaches using the synthetic control method of Abadie and Gardeazabal (2003) and Abadie et al. (2010, 2015). The method allows us to hone in on the most prominent TEL in the U.S. – Colorado's Taxpayer Bill of Rights (TABOR) – in detail, while simultaneously providing precise quantitative inference with which to assess the statistical robustness of our conclusions.

TABOR is fertile ground for investigating the efficacy of fiscal rules because it is widely considered the most stringent TEL in the U.S. Put more colorfully, TABOR is "the crown jewel of the tax limitation movement" (Poulson, 2005b) and places Colorado on "the nation's strictest fiscal diet" (Bridges, 2004). Intense debate surrounds TABOR. Some contend that it appropriately restrains the size of Colorado's government by resolving the principal-agent problem: "TABOR replaces ambiguous fiscal contracts between citizens and politicians with an explicit contract" (Poulson, 2005a). Furthermore, it has been argued that TABOR boosts economic growth.[3] Others believe it reduces the quality of public services in the state and unnecessarily constrains policy makers (e.g. Hedges, 2003; Lav and Williams, 2010). For instance, many contend that it has reduced funding to discretionary portions of the state budget (e.g. higher education and public health) while having little effect on areas whose costs are driven by factors outside the budget process (e.g. Medicaid and corrections). Moreover, TABOR may reduce the state's ability to respond to shifting economic conditions (e.g. James and Wallis, 2004; Frates, 2005).

Despite the acrimonious debate, there is *universal* agreement among all observers that TABOR reduced the size of government in Colorado. Appendix Table A1 contains a literature review of publications concerning TABOR and a selective review of the numerous policy pieces on the limit. Every item in the Appendix either provides evidence that TABOR reduces the size of government, cites other sources in support of this claim, or simply asserts the claim. The press has presented a similar view: One of the country's leading pundits has repeatedly extolled TABOR for constraining the size of government (Will, 2005, 2011), as has the editorial board of one of the nation's most prominent newspapers (Wall Street Journal, 2002, 2004). On the other side of the debate, the editorial board of another leading national newspaper has criticized TABOR as "anti-tax zealotry" which has prevented Colorado from adequately funding its public services (New York Times, 2015).

An evaluation of TABOR involves a number of challenging methodological concerns surrounding the fact that only a single state has ever enacted the policy. We attempt to surmount these difficulties by using the aforementioned synthetic control methodology to construct a synthetic Colorado from a weighted combination of states other than Colorado. The weights are chosen so that both taxes and spending in the synthetic Colorado mimic the behavior of these outcomes in the actual Colorado in the period before TABOR was enacted. The path of taxes and expenditures in the synthetic Colorado after TABOR's enactment then provides a counterfactual for what would have occurred in Colorado in the absence of TABOR.

The synthetic control methodology has a number of attractive features and is "arguably the most important innovation in the policy evaluation literature in the last 15 years" (Athey and Imbens, 2017). In relation to this study, the method has three primary advantages. First, although selecting an appropriate control group is of great importance in any policy evaluation, this process is often ad hoc and arbitrary. The synthetic control method provides a formal, data-driven method for choosing the control group and evaluating its appropriateness. Second, large sample inference methods are typically inappropriate when the treatment group is comprised of only one unit. The synthetic control method overcomes this difficulty by executing placebo tests on all states other than Colorado and assessing the prevalence of false positives. Third, the methodology is quite general in how it controls for unobservable factors that influence the common time trend of the treatment and control groups. Notably, it is more general than a fixed-effect estimator because it allows the influence of fixed, unobservable characteristics to have a *time-varying* influence on the outcome. This becomes a distinct advantage if, as suggested by Waisanen (2010), the unobserved preference for small government manifests itself differently over the course of the business cycle.

Unlike past uses of the synthetic control method, our analysis requires the examination of two outcome variables – taxes and expenditures. We therefore explore ways in which the synthetic cohort methodology can accommodate multiple outcomes of interest. Our preferred, and novel, approach is to simultaneously estimate treatment effects for taxes and expenditures with a single synthetic Colorado.

Despite the advantages of the synthetic control approach, there are inherent limitations to studying a policy which has only been enacted in a single state. In particular, we acknowledge that both estimating effects over a long period of time and establishing external validity are challenging; a level of uncertainty will remain, particularly with regards to external validity. On the other hand, TABOR is uniquely stringent in design and therefore provides a unique opportunity for evaluating the efficacy of stringent fiscal rules. Moreover, we employ a number of robustness checks in an attempt to mitigate the limitations of having only a single treated state. In particular, we perform a much more disaggregated, county-based analysis in the spirit of Kline and Moretti's (2014) evaluation of the Tennessee Valley Authority (TVA). We also conduct a regression-based dynamic difference-in-difference evaluation to demonstrate robustness to an alternative empirical methodology and to address a principal shortcoming of the synthetic control approach – its inability to control for time-varying factors in the post-TABOR period. Notably, we document the robustness of our conclusions to controlling in an extremely flexible manner for non-TABOR fiscal rules.

[2] Of the set of budget rules in use in the U.S., TELs are the most directly aimed at restraining growth in the size of governments. Most of the other fiscal rules in use in the U.S., such as balanced budget requirements, primarily aim to achieve budgetary balance.

[3] E.g. New (2010a). For a dissenting view see McGuire and Rueben (2006).